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Airpower in Peace Operations Re-examined

ERIK LIN-GREENBERG

This article examines the role of airpower in peace operations and asserts that, when carried out as part of a multidimensional operation, aviation is a force multiplier that enhances the effectiveness of typically undermanned peace operations forces. Emerging state and commercial actors, even if equipped only with relatively low-tech aircraft, are able to provide intelligence, airlift, information operations and armed support to peace operations. The article examines media reports, academic publications and openly available government and UN documents to assess potential roles for peace operations and to identify political and logistical challenges that must be overcome in deploying airpower.

In October 2008, Indian Air Force attack helicopters assigned to the UN Mission in Congo strafed rebel forces approaching the city of Goma in an effort to halt their advance.¹ The close air support operation, coordinated with Congolese and UN ground forces, only temporarily stalled the rebel approach but demonstrated the UN's ability to employ airpower in modern peace operations. The use of airpower in peace operations is not new, but the rise of state and commercial actors with aviation capabilities, combined with the development of aircraft well suited for low-intensity operations, may help to alleviate the UN's critical shortage of aviation support.² When coupled with ground forces and civilian efforts, airpower in peace operations can provide a deterrent and force-multiplying role that enhances mission effectiveness.

Despite airpower's potential to support intelligence, mobility, information operations and armed response, most UN missions lack aviation personnel and assets. These shortages stem largely from the reluctance of member states to contribute aircraft and crews to peace operations. Some states are unwilling to deploy aircraft for fear of revealing capabilities and shortcomings of advanced aviation assets (as discussed below). Others, including many large military powers, refuse to place their personnel and equipment under foreign command, and many UN member states are risk averse and do not contribute to missions that are unrelated to their national interests. Aviation shortcomings can be overcome. The use of low-technology systems and the unclassified dissemination of intelligence in counterinsurgency and humanitarian operations offer proof that aviation support in low-intensity conflicts can occur without significant security risks. For instance, the US Air Force provided unclassified imagery collected by Global Hawk reconnaissance aircraft to recovery personnel following earthquakes in Haiti and Japan.³ Additionally, counterinsurgency operations in Iraq and Afghanistan have demonstrated that private military firms can fill positions normally held by uniformed military personnel. The use of private aviation contractors

may help make peace operations more palatable to nations keen to avoid entangling foreign deployments.

Although air assets have previously supported peace operations, the topic has received limited analytical attention compared with studies of airpower in conventional conflicts and counterinsurgency. Earlier literature on the role of airpower in peace operations published during the Clinton era of cooperative security established a solid foundation, but the use of airpower in subsequent low-intensity conflicts and the emergence of new technologies and peacekeeping actors call for a re-examination of the topic.⁴ Understanding the capabilities and limitations of peace operations airpower will help better inform the UN and national governments in determining personnel and equipment contributions and force requirements for peace operations. This article also contends that airpower contributors need not deploy their most advanced equipment on peace operations, as less sophisticated assets can still improve mission effectiveness.

The article begins by examining potential peace operations aviation missions, including intelligence-gathering, transportation and kinetic operations. It then considers political and logistical challenges in employing peace operations airpower, and concludes by offering policy recommendations.

Potential Airpower Missions

Ideally, a peace operation would have a sufficient ground force, determined primarily by the size of the local population, deployed throughout the operating area.⁵ UN peace operations, however, regularly lack sufficient forces, and deployed personnel are often poorly trained or equipped.⁶ Difficulties arising from personnel shortages can be compounded by a lack of infrastructure in host states. Empirical studies find that nations with rough terrain and geographically isolated population centres are prone to civil war and insurgency because the reach of government institutions and security forces into remote areas is limited by inadequate transport networks.⁷ Such environmental factors can also make it difficult for peace missions to operate. Airpower can enhance the effectiveness of undermanned peace operations by gathering intelligence that improves operational planning, by rapidly transporting troops to hotspots and by providing airborne firepower against violent actors. Aviation contributions to these tasks need not involve highly sophisticated assets. In many cases simple systems are adequate. A 2008 study published by a consortium of NGOs identified over twenty countries, some equipped only with Cold-War-era helicopters, capable of providing aviation support to peace operations.⁸

Although airpower can enhance the effectiveness of a peace operation, mission planners should not become overly dependent on air assets. Operations in Iraq, Afghanistan and elsewhere clearly demonstrate the importance of ground forces. Practitioners of low-intensity military operations have long stressed the need for troops deployed among the population in order to gain popular support and rebuild government capabilities while marginalizing the ability of hostile actors to carry out violent and destabilizing activities.⁹

Intelligence, Surveillance and Reconnaissance

Accurate and timely intelligence is critical to peace operations because it improves mission effectiveness by providing decision-makers at all levels with enhanced situational awareness. At the strategic level, intelligence informs planning and force requirements by detecting ceasefire violations, identifying potential spoilers attempting to upset peace processes, and helping mission planners better understand the political, social and economic environment of the peace operation host state.¹⁰ Operationally, intelligence can identify threats to logistics infrastructure, determine the availability of critical resources such as electricity and water and assess the overall threat posed by potentially hostile actors.¹¹ Tactical intelligence can monitor immediate threats to both peacekeepers and the host nation population by locating weapons caches, detecting unauthorized troop movements or tracking illicit activity. Since the levels of conflict often overlap in peace operations, tactical intelligence may have strategic consequences. Intelligence must therefore be disseminated up and down the chain of command.

The best intelligence in low-intensity conflicts is typically gathered through interaction with the population, but airborne intelligence, surveillance and reconnaissance (ISR) platforms provide additional 'eyes and ears'. Airborne ISR can fill intelligence gaps during the early phases of an operation when local informants may be unwilling to provide peace operations forces information for fear of retaliation by hostile actors.¹² By gathering imagery and signals intelligence, airborne ISR can provide much-needed situational awareness while ground units build rapport with the local population. After human sources and ground intelligence are developed, the information collected by airborne ISR platforms can corroborate information or extend the reach of intelligence collection into isolated regions where few peacekeepers operate. To provide enhanced situational awareness, airborne collections should be fused with historical reporting and intelligence gathered by ground forces.

Although intelligence enhances the effectiveness of military operations, the UN has historically shied away from intelligence operations. Traditional intelligence collection often relies on covert methods and surreptitious monitoring, which are incompatible with peacekeeping's central tenets of neutrality and transparency. To avoid the connotation of undercover activities, the term 'intelligence' is avoided in official documents and communications in favour of 'information'.¹³ Despite the UN's aversion to intelligence, airborne ISR assets that collect imagery may be able to operate without generating concerns about invasion of privacy and loss of neutrality. By simply extending the eyes of peacekeepers, imagery collection can play a role similar to large numbers of peacekeepers or observers monitoring events on the ground. Additionally, imagery collection need not be kept secret. If the presence of airborne ISR assets were made known to hostile parties, imagery collection could deter actors from upsetting peace processes. Potential spoilers may avoid violating peace agreements and ceasefires for fear of their transgressions being detected and released to the public.¹⁴

Operations in Iraq and Afghanistan have highlighted the value of airborne ISR platforms in low-intensity conflicts. Remotely piloted aircraft (for example, the MQ-1 Predator) are in heavy demand for US military operations.¹⁵ Predators and other aircraft collect full motion video (FMV), television-like imagery that can be instantly disseminated to troops and analysts.¹⁶ When applied in peace operations, FMV can be used to warn peacekeepers of impending attacks, monitor bases and refugee camps, detect trafficking of illicit material and track illegal troop movements. Photographic still images also offer intelligence value by providing overviews of potential operating areas, identifying infrastructure and terrain features and detecting prohibited activities such as mobilizations or weapons caches. FMV and still imagery gathered by airborne assets can also help to identify improvised explosive devices (IEDs), a growing threat to UN peacekeepers.¹⁷ Intelligence personnel in today's counterinsurgency operations can rapidly warn ground forces of the IED threats identified by airborne assets, a process that could be applied in peace operations.¹⁸ In addition to collecting imagery intelligence, some airborne ISR platforms can locate the sources of radio transmissions or intercept communications. Exploiting the communications of potentially hostile actors can reveal their location and intentions, allowing commanders to deploy forces more efficiently.

Although sophisticated airborne ISR platforms may offer advanced collection capabilities, less complex systems, such as small aircraft carrying digital-camera-equipped observers, can provide commanders with situational awareness at a much lower cost. While a Global Hawk costs over US\$100 million, a US\$300,000 Cessna aircraft is more readily available to the militaries of developing states that routinely participate in UN operations.¹⁹ Easy to acquire, fly and maintain, ISR aircraft would be able to support peace operations – such as the CH2000, a single-engine surveillance aircraft equipped with an imagery sensor, used by the Iraqi Air Force to monitor insurgent activity.²⁰ Moreover, militaries may be more willing to share intelligence gathered by basic sensors than products collected from newer systems that might reveal sensitive capabilities.²¹

Deploying collection assets alone provides little value, as information must be analysed to produce intelligence that can guide the decisions of commanders and their forces. Linguists fluent in local languages play an important role in enhancing situational understanding by translating intercepted communications. Air attachés or military foreign area officers with historical and cultural knowledge could help train deploying linguists and analysts. Once exploited, contributing forces must then ensure that intelligence is adequately disseminated. Large military powers have been reluctant to share intelligence in peace operation environments. NATO initially refused to release intelligence reports to Indian Lt.-Gen. Satish Nambiar, the first commander of the UN Protection Force in Croatia and Bosnia–Herzegovina.²² Without access to intelligence reports, many of Nambiar's subordinates from NATO countries had more information than their mission commander. Situations like this can jeopardize unity of command by causing contingents to continue to rely on national command structures, rather than the UN, for information and guidance.²³

Air Mobility

Fixed and rotary aircraft can help overcome the limitations of ground transport and allow forces to rapidly deploy throughout a host nation, enhancing the effectiveness of a peace operation and extending the reach of governance into remote regions. Although readily available, ground transport on its own has significant limitations. States facing internal conflict often have weak transport networks, preventing movement into remote regions. Where roads do exist, threats from harassing fire, roadblocks and IEDs may make them too dangerous for peace operations. Using air assets to deploy and resupply forces in remote areas enables a force to establish a presence that protects the population, supports local governance and marginalizes belligerent activity. Airborne mobility is so critical to the success of peace operations that in 2007 UN Secretary-General Ban Ki-moon stated that without the contribution of 24 helicopters the African Union/UN Hybrid Mission in Darfur (UNAMID) 'will lack critical mobility and resupply capacity, which would fundamentally jeopardize its ability to carry out its mission'.²⁴

Although a persistent presence is the most effective means of establishing long-term stability, the chronic personnel shortages in UN peace operations often make this infeasible. Airpower's ability to bypass weak transport infrastructure offers an alternative by providing peacekeeping forces a quick reaction capability. Peacekeepers assigned to specialized rapid reaction units or deployed on other duties can be quickly redeployed by aircraft in response to flare-ups of violence, and then stabilize and contain a situation until a more robust follow-on force arrives. UNAMID helicopters are often used in this way and provide rapid access to areas not accessible by ground transport, enabling peacekeepers to respond to emergency situations.²⁵ Aircraft can also be used for medical evacuations, a role outlined in UN mission planning manuals.²⁶ Ideally, missions should have dedicated evacuation helicopters (failing that, utility aircraft) staffed by medical personnel to transport injured peacekeepers to medical facilities.²⁷

Air assets can also provide a peace operations force with the capability to support the development of host nation governance, a key facet of most post-conflict peace operations. In 2009, helicopters assigned to the UN Operation in Côte d'Ivoire took part in Operation *Transport*, delivering voter registration equipment to remote regions of the country in preparation for national elections.²⁸ UN aircraft also transported personnel of the Justice Ministry's mobile courts, in an attempt to spread administrative and judicial capacity into otherwise inaccessible regions.²⁹

While most air transport in peace operations occurs within a mission area, personnel and their equipment must be transported from their bases in troop-contributing countries. Since many nations that routinely contribute peacekeepers to UN missions lack aircraft to deploy their forces, they often rely on flights commercially chartered by the UN.³⁰ States otherwise unwilling to support aviation operations for fear of entangling deployments may be willing to provide airlift to and from a host state, an operation that typically lasts just one to three weeks and avoids sustained operations in a potentially dangerous environment.³¹

Information Operations

Gaining and maintaining popular support is central to the success of any peace operation. While support for a peace operation is largely determined by the actions and effectiveness of peacekeepers on the ground, effective communication of mission objectives and operations may also help build public support. Indeed, the UN Department of Peacekeeping Operations views public information as a political and operational necessity that earns public support, maintains cooperation of parties to the peace process and contributes to the security of mission personnel.³² Information operations launched by peacekeeping forces also help to minimize disinformation and counter the effects of media outlets controlled by groups inciting violence.³³

Specially designed aircraft, such as the US Air Force's EC-130 Commando Solo can supplement ground-based information operation efforts by broadcasting radio and television messages that discourage violence or provide critical information.³⁴ Airborne broadcasting capability is particularly valuable for disseminating information in remote regions or in areas with limited local broadcasting capacity. In addition to broadcasting its own messages, a peace operations force can also limit the ability of hostile actors to transmit violence-inciting broadcasts as occurred during the Rwandan genocide when Radio Télévision Libre des Mille Collines (RTL) identified the names and addresses of moderate Hutus and members of the Tutsi ethnic group for targeting by *génocidaires*.³⁵ When Lt.-Gen. Romeo Dallaire, commander of the UN Assistance Mission for Rwanda, called for the neutralization of RTL broadcasts, the US considered deploying aircraft to jam the transmissions, but the plan never materialized due to political complications.³⁶ The death toll in the Rwandan genocide might have been substantially lower had RTL transmissions been jammed. Like other realms of peace operations aviation, information operations can be performed without advanced assets such as the EC-130. Helicopters and transport aircraft can drop leaflets providing information to civilians or belligerents, as was done by the Unified Assistance Force in Somalia in the early 1990s.

Kinetic Airpower

Armed platforms can deter violent activity, intercept belligerents before they reach their intended targets, provide extra firepower to ground forces and protect convoys or refugees from attack, helping to prevent small outbreaks of violence from escalating. The UN has previously employed kinetic airpower in the Congo, Sierra Leone, Somalia and the Balkans. During these operations, it largely took the form of 'no-fly-zone' enforcement and close air support (CAS, air action by fixed and rotary wing aircraft against hostile targets in close proximity to friendly forces).³⁷

Using CAS against forces that attack peacekeepers may compensate for a dearth of armed peacekeepers on the ground, serving as a valuable force multiplier. A variant of CAS based on the British interwar-era strategy of colonial air policing could be tailored to modern peace operations.³⁸ Air strikes, complemented by ground operations, were used to deter and suppress uprisings in British

colonies. A modernized form of air control could scramble armed aircraft to interdict hostile outbreaks before ground peacekeepers arrived on the scene. Depending on conditions and the mission mandate, air control assets could launch strikes or display a show of force to prevent belligerents from carrying out violent actions. The goal of air control would not be to quell flare-ups solely with airpower, but rather to stabilize the situation until peacekeeping troops arrived. Although it can be effective, CAS in peace operations is controversial and should be used with restraint. The effectiveness of peace operations airpower must not be measured by the number of successful CAS missions, as the need for CAS in low-intensity conflicts likely indicates deteriorating security conditions.³⁹

No-fly zones are another form of offensive airpower that can be applied where at least one party employs aircraft to attack its adversaries or transport military personnel and supplies illegally. In March 2011 in response to Muammar Gaddafi's use of force against civilian rebels in Libya, the UN Security Council imposed a no-fly zone and authorized the use of 'all necessary means' short of an occupation to protect civilians. The no-fly zone was effective in preventing Libyan aircraft from attacking civilians, but it was the associated coalition missile and air strikes that helped to counter advances made by Libyan ground forces.⁴⁰ This instance demonstrates the need to combine no-fly-zone enforcement with more robust measures, such as air strikes or ground force deployments, to halt acts of aggression. The force required for a no-fly zone depends on the size of the operating area, the distance between operating bases and the zone, and the threat level posed by potentially hostile air defence infrastructure. Past no-fly-zone enforcement has required at least an aircraft wing, including fighter jets, command and control platforms, tankers and search and rescue assets.⁴¹

The use of kinetic airpower in peace operations would not come without significant political and operational risks. Employing heavily armed military aircraft against hostile actors may generate criticism if perceived as an asymmetric action that exceeds the minimal use of force generally associated with peace operations. Such concern could raise fears of impinging on state sovereignty and lead to disagreement between states supporting minimal use of force missions and those advocating more robust operations, as in the case of Libya in 2011, when Russia, China and other states opposed coalition air strikes. Disagreements may strain diplomatic relationships and could result in highly restrictive rules of engagement for airborne assets, potentially impeding operational effectiveness.

The political complications were evident in NATO's Operation *Deny Flight*, which enforced the no-fly zone over Bosnia–Herzegovina to support the UN Protection Force (UNPROFOR) in April 1993 (under Security Council Resolution 816). The operation was later expanded to include CAS operations in support of UNPROFOR ground forces as well as punitive and deterrent strikes against Serb military targets. While NATO air forces were largely effective in preventing fixed-wing aircraft from entering the zone, NATO encountered significant difficulties as the scope of the operation expanded.⁴² Many of the shortcomings were a direct result of the operation's governing dual-key system which required the time-consuming approval of both NATO leadership

and the UN Secretary-General for all air strikes, routed through both NATO and UN chains of command.⁴³ Even after UN Secretary-General Boutros Boutros-Ghali delegated strike approval authority to his Special Representative, requests still took hours to gain approval because of political considerations.⁴⁴ The UN hoped to abide by its tenet of neutrality, while NATO members with troops in Bosnia and Herzegovina, fearful of Serbian retribution, were reluctant to expand air operations beyond CAS.⁴⁵ Consequently, the UN established restrictive rules of engagement that limited NATO's ability to strike significant Serbian military targets.⁴⁶

Reluctance to execute air strikes combined with the dual-key approval process decreased the credibility of NATO airpower as a deterrent against Serb attacks. Serb forces routinely fired at NATO warplanes and seized UNPROFOR peacekeepers, holding them hostage as human shields and bargaining chips, and NATO temporarily ceased air strikes each time UN troops were seized; this demonstrated the ability of a relatively small actor to deter the use of peace operations airpower.⁴⁷ Air operations succeeded only after they were closely coordinated with ground operations during Operation *Deliberate Force*. No longer constrained by many of the restrictive rules of engagement, air strikes were carried out in conjunction with artillery attacks by the UN Rapid Reaction Force, and UNPROFOR personnel moved away from Serb operating areas during NATO air operations, denying Serbs the opportunity to capture peacekeepers.⁴⁸

The Balkan experience highlights lessons for kinetic peace operations airpower. When feasible, chains of command should be unified, rather than dual. If kinetic air support for UN operations is provided by another entity such as NATO, the UN force commander and air component commander should be collocated to streamline communications, integrate planning and approve strikes. Delegating strike approval authority to the force commander would further increase effectiveness by enabling decisions to be made by someone familiar with the military situation and allowing for a faster approval process, which is critical for peacekeepers under fire. Rules of engagement should be designed to minimize the risk of collateral damage and civilian casualties, while avoiding overly restrictive conditions that prevent air forces from meeting their objectives. Standing rules of engagement that define specific conditions when the use of force is authorized would eliminate approval delays and potentially enhance the credibility of a peace operations air component as a flexible and responsive actor.

In addition to political challenges, the use of armed aircraft also increases the risk of civilian and friendly force casualties. 'Centres of gravity' in peace operations are often small groups of hostile actors dispersed among non-combatants. Air strikes against belligerents operating among the civilian population could generate popular hostility towards the peace operations force, and civilian casualties may generate international criticism, possibly decreasing international support for the operation.

To minimize the risk of civilian and peacekeeping force casualties, close coordination between attack aircraft and ground forces is critical. Forward air controllers, personnel specially trained to direct CAS assets to targets on

the ground, can help reduce the risk of unintended civilian and 'friendly force casualties'. However, the multinational nature of peace operations can make forward air controller employment difficult, as they typically undergo training with pilots from their own country and allies that employ similar tactics and procedures. To be effective, forward air controllers must be sufficiently trained to work with all pilots supporting the peace operation, regardless of their country of origin. Integration of airborne ISR assets into kinetic operations may also help reduce the risk of unintended casualties and damage. Airborne ISR platforms can identify targets, pass target locations to armed aircraft and call off strikes if civilians or friendly forces enter the target area.

Once targets are selected, peace operations forces must employ the smallest and most accurate munitions capable of striking the target. Planners must also consider using aircraft-launched variants of so-called 'non-lethal systems' commonly used for crowd control, such as lasers, acoustics and tear gas. Weapons may not even need to be employed for armed airpower to be effective. Coalition forces in Afghanistan have increasingly relied on show-of-force operations to deter attacks and other insurgent activity. During these missions, armed aircraft make themselves visible through manoeuvres or by dispensing flares, often causing insurgents to retreat for fear of air strikes.⁴⁹

Bringing Airpower to Peace Operations

Although airpower can enhance peace operation effectiveness, securing contributions of aviation assets from UN member states will pose a significant challenge. States capable of providing aviation support may be hesitant to do so for a variety of reasons. Military powers including the US are often unwilling to participate in multilateral operations or to submit their forces to foreign command, fearful that differences in the culture and training of foreign military officers will increase risks to their personnel.⁵⁰ Potential contributing nations may also be reluctant to deploy forces on missions not viewed as critical to national interests. Political elites and the populations they govern are averse to casualties and inclined to avoid endangering troops on seemingly non-essential missions.⁵¹ Additionally, financial constraints in contributor states can preclude the contribution of forces. Russia's Ministry of Defence refused UN requests for aviation units after the Russian government only reimbursed the Ministry a fraction of the UN payment for its participation in the UN Mission in Sierra Leone.⁵² Finally, states may avoid providing aviation support for fear of revealing sensitive military capabilities and shortcomings. While China has significantly increased its personnel contributions to UN peace operations over the past decade, Beijing has refrained from deploying aviation units, in part to avoid revealing the technological level of its military helicopters.⁵³ While these concerns currently limit the contribution of aviation assets, the increasing use of remotely piloted aircraft (RPAs), private military firms and emerging military actors may help to overcome the challenges of obtaining airpower for peace operations.

Over the past decade, a new set of political, economic and military powers has played an increasing role in international peace operations, notably Brazil and China. These emerging states may participate in peace operations to demonstrate commitment to internationally defined interests or may use their participation to support self-interested objectives such as establishing economic ties or expanding diplomatic influence in peace operation host states. Regardless of their motives, new actors have greatly increased their personnel contributions and may use aviation contributions to further demonstrate their support for international peace operations.

Potential peace operation contributors also have access to emerging aviation technologies that allow them to support peace operations with relatively low risk levels. Systems, such as RPAs, once possessed only by advanced military powers, are now in the fleets of developing military, non-state and corporate actors. Their use in peace operations may be attractive to potential airpower contributors, as they are piloted by operators on the ground, reducing risk of personnel losses during missions. Peace operations planners can also seek additional aviation assets by expanding the use of private military firms. The use of aviation contractors in UN operations is not new; in 2007, the UN spent US\$800 million chartering over 200 commercial planes and helicopters to provide aviation capacity for its missions.⁵⁴ While the UN has long relied on private firms to transport cargo and personnel, the global proliferation of ISR and combat aircraft opens new realms to commercial aviation support; attack helicopters operated by private military firms have supported combatants in the very civil wars that UN peace operations are designed to end.⁵⁵ These assets could be contracted for use by peace operations forces. Large private military firms are also developing fleets of armed aircraft that could one day be hired by the UN or by nations unwilling to deploy military personnel and equipment on peace operations.⁵⁶ In addition to kinetic support, private firms could offer ISR services. In 2005, Oregon-based aviation contractor Evergreen International proposed using RPAs equipped with cameras to patrol Sudan's Darfur region.⁵⁷ Although the activist group that initially approached Evergreen rejected the RPA proposal due to cost and operational considerations, it was an instance of one firm's ability and willingness to support peace operations with advanced airborne systems.

The use of private aviation firms in peace operations may reduce the political and human risks to a troop-contributing nation, but relying on commercial airpower has disadvantages. Commercial airpower providers are profit-maximizing firms. Aviation firms that support UN operations often lack appropriate standards when choosing clients. One Sudanese airline maintained contracts with the UN Children's Fund (UNICEF) and the International Medical Corps, while also transporting equipment that violated the arms embargo on Sudan.⁵⁸ This was not an isolated occurrence; at least 90 per cent of intercontinental air cargo carriers listed in arms-trafficking reports by the UN Security Council also provide services to the UN, EU, NATO and NGOs throughout Africa, Europe and the Middle East.⁵⁹

Even if reputable firms are hired, they are not legally bound to execute orders and may simply withdraw when risk levels are assessed as too high. Although

their corporate reputation may be damaged, private military firms generally face no punishment for breaching contracts.⁶⁰ Civilian employees of these firms can quit without the risk of court martial or desertion charges faced by their military counterparts.⁶¹ If firms and their employees breach contracts, a mission dependent on aviation support could be seriously jeopardized. Other problems can arise because private military firms have jeopardized operational security and safety on peace operations by cutting costs on technology and personnel. A private military aviation firm contracted to provide airborne ISR used unencrypted broadcast relays to transmit imagery collected over Bosnia and Herzegovina. As a result, Europeans with home satellite television receivers could watch live broadcasts of ISR footage intended to be classified.⁶² Another US-based military contractor allegedly hired individuals with no previous aviation experience as mechanics for combat aircraft.⁶³

To ensure private firms provide dependable and secure aviation support to peace operations, the UN must ensure that only firms without past embargo violations are hired and then must set enforceable contractual obligations. Contracts should include a defined set of safety and operational security standards that private firms are expected to uphold. The UN must then monitor airpower providers to verify that standards are being followed. Private aviation firms failing to meet operational standards must be held accountable, either through financial penalties or by being barred from future contracts.

Operational Challenges

Even if aviation assets are secured, significant operational challenges remain. Host states may lack the airfields and support infrastructure necessary to sustain air operations. While contributing nations or firms can select aircraft capable of operating from available airfields, they have less control over the initial security environment and support facilities at peace operations airbases. Unlike traditional airbases, which are generally located in friendly territory, key peace operations force garrisons are often at the centre of peace operations. If security at an airbase is inadequate, force protection will be necessary to protect aircraft and crews from sabotage or attack. Deploying a ground-based security force increases ground presence in a host state and the perceived level of loss of sovereignty. Further, a larger personnel presence in a potentially dangerous environment may be undesirable to a nation seeking only limited involvement in a peace operation.

Although aviation contributions may be perceived as a low-risk means of support, the threat to air assets should not be underestimated. Numerous aircraft have been targeted during peace operations, including two C-130 cargo aircraft supporting the UN Observer Mission in Angola, killing 23 passengers and crew.⁶⁴ Slow-moving transports and helicopters commonly deployed on peace operations are susceptible to ground-based threats, ranging from small arms to sophisticated man-portable air defence systems (MANPADS), like those that downed the UN aircraft in Angola. Non-state actors are estimated to possess several thousand of these mobile systems which are effective against slow,

low-flying aircraft.⁶⁵ Ironically the same proliferation of military technology that enables new actors to provide aviation support to peace operations also helps arm the groups that threaten air assets in peace operations. Attacks can destroy aircraft or preclude operations into areas viewed as too dangerous, limiting the transport of critical resources and personnel and the projection of both UN and local government power.

In addition to the physical risk faced by aircrews, the seemingly tactical act of shooting down an aircraft may generate strategic effects. States may withdraw their forces once the perceived risk level escalates, as did the US in 1994 after 18 soldiers were killed when two Black Hawk helicopters were shot down in Mogadishu. The withdrawal of airpower-contributing nations can impact upon mission effectiveness by decreasing the force's ability to rapidly move supplies and personnel or maintain situational awareness throughout the mission area. The use of RPAs may reduce the risk for some ISR and kinetic operations, but manned platforms will be required to fulfil air transport requirements for the foreseeable future.

Conclusion

If employed as part of a multidimensional peace operation, airpower can serve as a valuable force multiplier. Airpower's ability to improve situational awareness through airborne ISR, to rapidly transport personnel, to conduct information operations and to execute kinetic strikes all potentially enhance the effectiveness of peace operations. While most UN missions today lack sufficient aviation support, conditions may soon change. As the US and its coalition partners draw down their forces in Iraq and Afghanistan, airborne assets suited for low-intensity operations will be available for employment elsewhere. Established military powers may employ platforms such as Predator RPAs as a low-risk means of supporting peace operations, while other states may use airpower contributions to demonstrate their commitment to the UN organization. At the same time, technological advances and the proliferation of aviation assets to private firms also provide a large pool of possible aviation sources for future operations, though UN oversight is required to ensure that these actors operate safely and effectively.

Although the capacity to support peace operations exists, defence planners in many states remain focused on training and equipping their air forces for conventional and counterinsurgency operations. The potential for international peace operations, however, warrants their attention. Proper planning requires developing tactics, training plans and aircrew proficiency, tasks that take time to accomplish. The UN can work with potential aviation contributors to establish standard procedures, including guidance on rules of engagement, communication and training requirements, and outline mechanisms for coordination at all levels of the UN hierarchy from headquarters down to aircrew members. Standardization of aviation operations across UN missions will allow potential airpower contributors to train for peace operations and alleviate the coordination issues that have hampered past UN airpower operations. Building aviation capabilities for

peace operations must consist of ongoing development and training, rather than an ad hoc process launched in the midst of a crisis.

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