Maj. Sándor Farkas:

## AIRPOWER IN COUNTERINSURGENCY

ABSTRACT: The idea of a more air centric counterinsurgency (COIN) approach is being proposed by many airpower theorists, claiming that the extended use of air capabilities would lead to lower costs in money, lives and resources with equal or better result than using large ground forces. In this study, I am searching for the answer whether in counterinsurgency operations air forces can play a strategic role or they are limited to accomplish tactical success and act as a force multiplier.

KEYWORDS: airpower, counter insurgency, rapid mobility, intertheater lift, intratheater lift, precision attack

#### INTRODUCTION

All throughout history there were conflicts and small wars that were conducted not between two states, but between a state and a non-state actor. Since during these conflicts there are significant differences between the tactics and strategies that the belligerents use because there is a huge inequality between the warring parties relative military and combat power, these conflicts are asymmetric in nature. If we have a look at the proportion of symmetric and asymmetric wars of all armed struggles in the second half of the 20<sup>th</sup> century and in the first seventeen years of the 21<sup>st</sup> century we can clearly identify that most of the conflicts are asymmetric (Vietnam, Cuba, Afghanistan, Iraq, Syria, Nigeria). If we analyze the asymmetric conflicts throughout the last 200 years, the following tendency can be seen. For the entire 200 years we can state that 70.8 percent of the asymmetric conflicts were won by the stronger (the state) warring party. But by dividing the era into 50-year intervals the result is a lot more diversified. Between 1800 and 1849 88.2 percent, between 1850 and 1899 79.5 percent during the 1900-1949 period 65.1 percent and between 1950 and 1998 only 45 percent of the asymmetric conflicts were won by the stronger party.

We can clearly state that the closer we are to our current day, the more successful the weaker party has been in asymmetric conflicts. This makes it very important to pay close attention to this type of armed conflicts, to constantly analyze them, to draw new conclusions and to come up with new ideas and theories how regular armies can efficiently combat this irregular enemy. Most of the theories and doctrines only deal with how we can use ground forces to defeat the enemy that uses insurgency, terrorism, and guerilla methods as their primary tactics. The leading doctrine for the US Military on how to operate against an insurgent force – the 2007 United States Army and Marine Corps Field Manual (FM) 3-24

Read, D. "Airpower in COIN: Can Airpower Make a Significant Contribution to Counter-Insurgency?". Defence Studies 10/1-2. 2010. 126. https://doi.org/10.1080/14702430903392828, Accessed on 20 December 2010.

Arreguín-Toft, I. "How the Weak Win Wars: A Theory of Asymmetric Conflict". *International Security* 26/1. 2001. 96–97. https://web.stanford.edu/class/polisci211z/2.2/Arreguin-Toft%20IS%202001.pdf, Accessed on 04 January 2018.

Counterinsurgency – whose compilation was coordinated and overlooked by General David Petraeus and Dr. David Kilcullen barely touches the use of airpower. On the other hand, there are many airpower theorists who foster a more airpower-centric counterinsurgency approach to be created.<sup>3</sup> They claim that the central element of modern military strategies should be built around the use of airpower. To back up their theory they point to successes in Bosnia in 1995, in Kosovo in 1998, and the air policing conducted over Iraq from 1991 to 2003.4

#### **CLARIFYING CONCEPTS**

Before examining the use of airpower in COIN operations it is essential to briefly outline the nature of insurgency and COIN warfare. Field Manual 3-24 defines insurgency as "an organized, protracted politico-military struggle designed to weaken the control or legitimacy of an established government, occupying power, or other political authority while increasing insurgent control."5 Joint Publication 1-02 Department of Defense Dictionary of Military and Associated Terms defines COIN as "military, paramilitary, political, economic, psychological, and civic actions taken by a government to defeat insurgency". Though conventional conflicts and COIN operations have common attributes and the same basic principles of war apply for both, they also differ in many aspects. COIN requires a different mindset and a different military strategy - it should concentrate less on the use of the military instrument and focus more on diplomatic, informational, and economic instruments and to counter the ideological message that makes the rise of insurgents possible in order to gain or retain the support of the population.

First Louis Hubert Gonzalve Lyautey used the term "hearts and minds" in 1895 during the Black Flags rebellion along the Indochina-Chines border, whose basic goal was to bring the subjugated population on side. David Galula basically redefined Lyautey's theory when stating that the center of gravity in counterinsurgency operations is the indigenous population.<sup>7</sup> Thus to be successful the key tasks for a COIN force are providing security for the population, guarantee order, observe and act in accordance with the law. All this should be done in a way that ensures that the number of civilian casualties and collateral damage is close to zero or at least as low as possible. Besides conducting civic actions and trying to build the host nation's capability to combat insurgency the third-party military force can only accomplish minimal collateral damage by operating an intelligence system that can provide accurate and timely information to the decision makers, by understanding the cultures, people, and environment, and using minimum and discriminate force. But is it possible to accomplish all these goals from the air or by using extensive airpower? Or how could airpower successfully contribute to COIN operations?

<sup>&</sup>lt;sup>3</sup> Maguinness, M. A. "Counterinsurgency: Is »Air Control« the Answer?". Small Wars Journal, 18 June 2009. http://smallwarsjournal.com/jrnl/art/coin-is-air-control-the-answer, Accessed on 25 December 2017.

Meilinger, P. S. "Counterinsurgency from above". Air Force Magazine, July 2008. http://www.airforcemag. com/MagazineArchive/Pages/2008/July%202008/0708COIN.aspx, Accessed on 18 December 2017.

<sup>&</sup>lt;sup>5</sup> "Counterinsurgency: FM 3-24". US Dept. of the Army. December 2006. 1. http://usacac.army.mil/cac2/Repository/Materials/COIN-FM3-24.pdf, Accessed on 16 December 2017.

<sup>&</sup>lt;sup>6</sup> Porch, D. "Bugeaud, Gallieni, Lyautey: The Development of French Colonial Warfare". In Paret, P. (ed), Makers of Modern Strategy: From Machiavelli to the Nuclear Age. New York: Oxford University Press, 1986. 394.

<sup>&</sup>lt;sup>7</sup> Galula, D. Counterinsurgency Warfare: Theory and Practice. Westport: Praeger Security International, 2006.4.

### SHORT HISTORICAL OVERVIEW

Soon after the invention of the airplanes they were already used in COIN operations. They first appeared in 1913 when France was fighting to repress the uprising in Morocco. The United States first used air assets for COIN in 1916 when General John Pershing led an expedition to capture Pancho Villa, the leader of the Mexican insurgency.8 After World War I, due to economic constraints Britain was struggling to station large ground forces in its colonies. To reduce costs a new theory – mainly embraced by the Royal Air Force (RAF) – was implemented emphasizing the extended use of airpower over ground forces. One good example is Iraq in 1922 when the RAF took over the COIN campaign from the British Army to make the fight against the insurgency conducted by the Arabs and Kurds cheaper. The RAF-led COIN campaign resulted in indiscriminate bombing campaigns against villages that supposedly supported insurgent forces. The brutality of these bombardments – besides further alienating the indigenous population – eventually led to the opposition and condemnation by British society which forced the military leaders to revise their strategy. Though it was said that the RAF played the decisive role in this COIN operation thus RAF could substitute ground units the reality was the complete opposite. The RAF made numerous punitive air campaigns but most of the air sorties were utilized in support of the significant amount of Indian and Iraqi ground forces that replaced the British soldiers after they had been withdrawn from theater.9 The RAF primarily conducted reconnaissance and surveillance missions to support the ground forces and it unambiguously unraveled the fact that airpower is not able to substitute ground forces in COIN operations, but it can be an extremely effective force multiplier.<sup>10</sup> So, if airpower cannot be the core element of COIN operations then how can it contribute to the overall success of the mission?

In numerous other struggles airpower was used to exploit its advantageous capabilities such as rapid mobility, intertheater airlift, intratheater airlift, intelligence, surveillance and reconnaissance, and precision attack. Even in the ongoing conflicts by controlling the air and having air superiority over Afghanistan and Iraq, air component was able to transport hundreds of thousands of soldiers, thousands of tons of supply, to drop supply to isolated units, to evacuate the wounded from the battlefield and from the theater back to their home countries, to gather real-time intelligence, and to conduct precision strikes.<sup>11</sup>

# HOW AIRPOWER CAN CONTRIBUTE TO THE SUCCESS OF COUNTERINSURGENCY OPERATIONS

## Rapid mobility and intratheater lift

In Malaya over 110,000 troops were airlifted by helicopters to a mission in 1950. This ten-minute flight over the jungle would have taken ten hours to cover on foot which is a significant differ-

Schwartz, N. A. "Airpower in Counterinsurgency and Stability Operations". PRISM 2/2. 2012. 127–128. http://cco.ndu.edu/Portals/96/Documents/prism/prism\_2-2/Prism\_127-134\_Schwartz.pdf, Accessed on 17 December 2017.

<sup>&</sup>lt;sup>9</sup> Maguinness. "Counterinsurgency...". 2-4.

Orum, S. J. and Johnson, W. R. Airpower in Small Wars: Fighting Insurgents and Terrorist. Lawrence, Kansas: University Press of Kansas, 2003. 51–66.

<sup>&</sup>lt;sup>11</sup> Schwartz. "Airpower...". 127.

ence especially considering the element of surprise and fatigue of the units. One of the tactics special operation forces apply in Afghanistan and Iraq to capture or eliminate insurgent key leaders is surprise attacks, which are done most of the times by using helicopters.<sup>12</sup> As per my personal experience the road system in Afghanistan is extremely poor. The base of the Hungarian Provincial Reconstruction Team (PRT) was in Pol-e Khomri city in Baghlan province. To get to some of the districts that are located on the periphery of the province – about 50-70km from our base – it took us a little over twelve hours. 13 It did not take so much time because we had to fight all the way to get to our destination, it took so much time simply because of the lack of a developed road system. Deploying by helicopters not only helps to keep the element of surprise but it also helps avoiding rugged terrain, mitigate the threat of improvised explosive devices (IEDs) and surprise attacks (ambushes) carried out by the insurgent force.

We should not forget about the benefits of swift casualty evacuation by air. Knowing that a soldier can get the best possible treatment in the shortest possible time – which increases the chance of survival – does not only boosts the morale of the soldiers, but also contributes to mission success by being able to continue with the mission after the injured personnel had been evacuated. Moreover the sooner a wounded soldier gets his or her treatment the more likely that he or she is going to have a swift and full recovery, which means that he or she can get back to the fight sooner.<sup>14</sup>

Airlift is also a critical enabler providing sustainment. In accordance with what U.S. General Robert H. Barrow (Commandant of the Marine Corps) stated in 1980 - "Amateurs talk about tactics, but professionals study logistics" 15 - COIN missions cannot be successful without a well-organized logistical service. To supply remote and isolated forward operating bases like Restrepo<sup>16</sup> – which is famous from the movie Korangal – would not be possible without a massive fleet of rotary wing aircraft. From 2010 to 2014 the United States Air Force airdropped over 87,000 tons of cargo and they provided constant transportation for Afghan government and military personnel to numerous locations to expand government power to remote areas and facilitate troop movements. <sup>17</sup> In sum, we can state that tactical mobility and vertical maneuver accomplished by helicopters give a great advantage for coalition forces in all theaters facing asymmetric, irregular warfare.

#### Intertheater lift

Deployment from home bases into a theater of operation by air also has its great advantages. Transporting a massive number of troops and a huge amount of logistic supplies by sea is

<sup>&</sup>lt;sup>12</sup> Read. "Airpower in COIN...". 128.

<sup>&</sup>lt;sup>13</sup> Over 85 percent of the Afghan road system is damaged.

<sup>&</sup>lt;sup>14</sup> Besenyő, J: "Logistic Experiences: The Case of Darfur". In Koivula, T. and Kauppinen, H. (eds), Promoting Peace and Security in Africa. Helsinki: National Defence College Finnish Department of Strategic and Defence Studies, 2006. 41-58. http://www.doria.fi/bitstream/handle/10024/77169/StratL2 35.pdf?sequence=1, Accessed on 17 December 2017.

<sup>&</sup>lt;sup>15</sup> O'Rourke, R. The Fighting Instructions BRd 4487 Vol 2/10: Maritime Operational Logistics. Fareham: MWC Puplication and Graphics Office Maritime Warfare Center, 2017. 2.

<sup>&</sup>lt;sup>16</sup> Shadix, D. To Quell the Korengal. DTV Press, 2015.

<sup>&</sup>lt;sup>17</sup> "Combined Forces Air Component Commander 2010-2015 Airpower Statistics". USAF Central Command Combined Air and Space Operations Center. 31 December 2015. http://www.afcent.af.mil/Portals/82/ Documents/Airpower%20summary/31%20December%202015%20Airpower%20Summary%20corrected. pdf?ver=2016-01-26-170116-533, Accessed on 17 December 2017.

very cost effective, but transporting all these materials at a minimum time provides numerous advantages and it promotes success. In the first year of Operation Enduring Freedom 97 percent of all cargo was transported to the theater by air and since then tens of millions of passengers, millions of tons of cargo have been airlifted to Afghanistan.<sup>18</sup>

## INTELLIGENCE, SURVEILLANCE, RECONNAISSANCE

When airplanes appeared in the early 1900s, military leaders were uncertain on how to use the new technology. <sup>19</sup> At first aircraft were employed to gather intelligence and to observe artillery fire from the air. Although their primary task has shifted to being utilized as an offensive force, air assets kept their role and importance in collecting information about the battlefield and the enemy. <sup>20</sup> The live feeds they can provide to commanders has significantly raised the situational awareness which ultimately leads to better and faster decision making which is fundamental to success. Intelligence in COIN operations is cardinal that is why the need for unmanned or remotely piloted aircrafts<sup>21</sup> has grown significantly. Pilots sitting in the safety of their home countries flying these assets – besides giving real-time intelligence to the commander – can find, track and destroy high value targets.

Though surveillance from the air has the benefit of being less vulnerable than forces on the ground, but there is a limit that can be achieved by aerial platforms. There is a growing demand to extend the time on station<sup>22</sup> for ISR assets – some of them can spend hours or even days monitoring targets and conduct a precision strike afterwards, but they are still not able to provide information as detailed and spend as much time observing targets as human intelligence personnel can. One good example of this was during Operation Anaconda.<sup>23</sup> Weeks before the launch of the attack numerous ISR assets were committed to reconnaissance the area of operation and the possible landing sites. They were looking for lightly equipped soldiers and dug in, well camouflaged fighting positions dispersed throughout a mountainside which could pose a great threat for the landing helicopters. The commander of the operation and the intelligence cell quickly realized that they had to primarily rely on human source of intelligence to gain an understanding of what was going on in the valley<sup>24</sup>. As Major Lou Bello<sup>25</sup> stated about the use of ISR assets:

"It would have been great if we were looking at a Soviet motorized rifle regiment or some other large target set, but we were looking at a DShK on a hillside, in the middle of Afghanistan in the middle of the night ... It really is like trying to find a needle in a haystack."<sup>26</sup>

<sup>&</sup>lt;sup>18</sup> Read. "Airpower in COIN...". 128.

<sup>&</sup>lt;sup>19</sup> Jobbágy, Z. "From Effects-based Operations to Effects-based Force: On Causality, Complex Adaptive System and the Biology of War". PhD thesis, Leiden University, 2009. 77–114.

<sup>&</sup>lt;sup>20</sup> Besenyő, J: "Gerillaháború Nyugat-Szaharában – Polisario vs. Marokkó és Mauritánia". *Hadtudomány* 25.2015. 48–58. http://mhtt.eu/hadtudomany/2015/2015\_elektronikus/6\_BESENYO\_JANOS.pdf, Accessed on 17 December 2017.

<sup>&</sup>lt;sup>21</sup> Like: MQ-1 Predator, MQ-9 Reaper, RQ-4 Global Hawk, U-2 Dragon Lady, RQ-11 Raven, RQ-7 Shadows, RQ-20 Pumas, Skylark I., Milvércse, Meteor 3MA etc.

<sup>&</sup>lt;sup>22</sup> The amount of time an air asset / sensor can be in its operating position.

<sup>&</sup>lt;sup>23</sup> It was one of the biggest battles in Afghanistan, which took place in March 2002 in the Shahikot Valley.

<sup>&</sup>lt;sup>24</sup> Naylor, S. Not a Good Day to Die: The Untold Story of Operation Anaconda. New York: Berkley Caliber Books, 2006. 74–82.

<sup>&</sup>lt;sup>25</sup> An artillery officer with 10th Mountain Division.

<sup>&</sup>lt;sup>26</sup> Naylor. Not a Good Day to Die... 135–136.

So while intelligence from air-platforms are without doubt very valuable, commanders should still stress the use of human source intelligence in COIN operations.

#### PRECISION ATTACK

The current COIN doctrine used by coalition forces in Afghanistan and Iraq focuses on protecting the population and on providing good governance and economic development. Security can be provided by segregating the insurgents from the innocent people and the moment that insurgents are isolated<sup>27</sup> military force can be applied without the risk of committing fratricide. Once the ISR or human intelligence assets identified the possible targets the window of opportunity to act is often very limited. The fastest way of delivering the appropriate amount of firepower to an evasive enemy is through the air. With small diameter bombs, bombs with less explosive, laser- or GPS-guided missiles and special weapons systems – such as the ones that the AC-130, the A-10 Thunderbolt II (Warthog), or MQ-1 Predator have – counterinsurgency forces can bring a proportionate answer to the threat that insurgents pose. 28 Air strikes against insurgent bases and the use of close air support is vital for ground forces in COIN operations but commanders must always keep in mind that the political aim of a campaign should always be superior to the tactical success. This is where intelligence plays a decisive role - good intelligence is indispensable to ensure that the right force is used against the right target. The use of joint tactical air controllers (JTAC) can also contribute to the success and effective employment of airpower in COIN operations. By being there in close cooperation with ground forces and watching a live feed broadcast from the attacking air asset of the target area and the possible future target, JTACs can significantly mitigate the risk of fratricide or collateral damage. To sum it up we can state, that airpower provides a huge asymmetric advantage over the insurgents but to negate this advantage insurgents may use different tactics. As the Chechens phrased it by "hugging the enemy" insurgents can force COIN forces to minimize the use of their air assets. Another tactic is moving insurgencies into the cities – currently about 50 percent of the world's population resides in cities, in 2030 over 60 percent will do so, and this number will keep rising.<sup>30</sup> Congested areas attract insurgents because the dense population makes it easier for terrorists to hide, they can attract greater media attention, there is a great potential that government forces' over reaction to insurgency will alienate large number of population,<sup>31</sup> and because the physical attributes of a city will likely to negate the effects of airpower to a certain extent. Though it will be a challenge to conduct ISR operations, running CAS sorties without collateral damage and without being easily shot down from rooftops, but all this is possible. ISR assets with their highly sensitive sensors will still be able to find, fix

<sup>&</sup>lt;sup>27</sup> Bombing innocent civilians by COIN forces can have serious drawbacks. Showing videos on CNN about crying and bleeding children among the ruins of buildings could not only turn the indigenous population against COIN forces, but even their own. This might end up in forcing the ruling political party out of power if they do not comply with the will of their population to withdraw forces from the war theater.

<sup>&</sup>lt;sup>28</sup> Schwartz. "Airpower...". 131.

<sup>&</sup>lt;sup>29</sup> West, B. No True Glory: A Frontline Account of the Battle for Fallujah. New York: Bantam Books, 2005. 66, 200, 209 and 281.

<sup>&</sup>lt;sup>30</sup> "Urbanisation". 21stcenturychallenges. https://21stcenturychallenges.org/urbanisation-2/, Accessed on 22 December 2017.

<sup>&</sup>lt;sup>31</sup> Marighella, C. "Minimanual of the Urban Guerilla". In Mallin, J. (ed), Terror and Urban Guerillas: A Study of Tactics and Documents. Coral Gables: University of Miami Press, 1982. 111-112.

and follow targets, with the use of precision ammunition with reduced explosives and with utilizing more JTACs collateral damage could be avoided. By using fixed wing aircraft flying at high altitude at a high speed instead of the low flying rotary wing helicopters even the loss of air assets can be minimized.

#### NON-KINETIC EFFECTS

The use of airpower can also have effects that do not go hand in hand with a lethal outcome. Show of presence or show of force flights may have great deterrent impact if used properly – they should be robust enough to make the enemy believe that the use of deadly force is imminent in case of need, while kinetic activities should not be used unless absolutely needed, in order to avoid unnecessary damage. During my rotations in the Hungarian PRT we often utilized fixed or rotary wing aircrafts to escort our patrols in areas where other coalition forces were often attacked. When we had US F-16s fighter jets, A-10 Thunderbolt II (Warthog) aircraft or AH-64 Apache helicopters flying in front or above our column of vehicles we were never attacked.

Though modern communication systems offer an excellent and very efficient way of delivering messages to the local population or to insurgent forces there are still areas where modern technology and Internet are still not part of everyday life. To deliver PSYOPS messages – with the purpose of convincing the insurgents about reconciliation or surrender, to ensure the local population of the support of COIN forces, and to encourage the indigenous population to cooperate with them – air platforms may still be an extremely useful tool. Dropping leaflets, broadcasting previously recorded or live messages may still prove to be effective. Such was the case in 1993 when during a raid in Mogadishu – with the objective to arrest Mohamed Farrah Hassan Aidid, the leader of one the opposition groups in Somalia -Michael Durant was captured by insurgent forces. The night when Durant was taken prisoner a US Black Hawk helicopter was hovering above the city of Mogadishu broadcasting messages with a dual purpose. First, to assure Durant that US forces were coming to free him and to help him keep his presence of mind, and second, to convince the insurgent forces that the entire US war machine will be utilized to free Durant. Because of the negotiations whose effects were reinforced by the PSYOPS messages, Durant was released by his captors after eleven days.32

#### CONCLUSION

It is universally acknowledged that airpower can have a strategic effect in conventional warfare but due to the specific nature of insurgency air forces tend to play a supportive role and accomplish mainly tactical rather than strategic success in COIN operations. As Clausewitz says:

"The war of a community – of whole nations and particularly of civilized nations – always starts from a political condition, and is called forth by a political motive. It is therefore a political act. [...] We see, therefore, that war is not merely a political act, but also

<sup>32</sup> Per the lecture given by Michael Durant on 9 November 2015 at the National University of Public Service in Budapest, Hungary.

a real political instrument, a continuation of political commerce, a carrying out of the same by other means."33

This is especially true for COIN operations since government forces would be unable to defeat insurgents, counter their ideology and redress grievances that the population has, purely by military means. For western societies it is often alluring to use only airpower to solve crisis situations as the one in Afghanistan or Iraq since this way their countries do not have to send thousands of ground troops to a theater of war and they do not have to face their deaths. But gaining or retaining the support of the population, addressing their political, social and economic concerns, or training indigenous military security forces require a well-coordinated whole-of-government effort that cannot be accomplished from a couple of thousands of meters up in the air and cannot even be accomplished purely by military means either. Airpower is just one small military piece of a complex COIN puzzle.<sup>34</sup> The COIN principle of coordinated government mechanism makes it obvious that political and military actions must act in harmony; the integration of air and surface operations is equally important within the military line of operation.<sup>35</sup>

#### **BIBLIOGRAPHY**

- Arreguín-Toft, I. "How the Weak Win Wars: A Theory of Asymmetric Conflict". International Security 26/1. 2001. 93-128. https://web.stanford.edu/class/polisci211z/2.2/Arreguin-Toft%20IS%202001. pdf, Accessed on 04 January 2018.
- Besenyő, J. "Gerillaháború Nyugat-Szaharában Polisario vs. Marokkó és Mauritánia". Hadtudomány 25. 2015. 48-58. http://mhtt.eu/hadtudomany/2015/2015\_elektronikus/6\_BESENYO\_JANOS. pdf, Accessed on 17 December 2017.
- Besenyő, J. "Logistic Experiences: The Case of Darfur". In Koivula, T. and Kauppinen, H. (eds), Promoting Peace and Security in Africa. Helsinki: National Defence College Finnish Department of Strategic and Defence Studies, 2006. 41-58. http://www.doria.fi/bitstream/handle/10024/77169/ StratL2 35.pdf?sequence=1, Accessed on 17 December 2017.
- Clausewitz, C. von. "On War". Clausewitz.com. https://www.clausewitz.com/readings/OnWar1873/ BK1ch01.html, Accessed on 23 December 2017.
- "Combined Forces Air Component Commander 2010-2015 Airpower Statistics". USAF Central Command Combined Air and Space Operations Center. 31 December 2015. http://www.afcent.af.mil/Portals/82/ Documents/Airpower%20summary/31%20December%202015%20Airpower%20Summary%20corrected. pdf?ver=2016-01-26-170116-533, Accessed on 17 December 2017.
- Corum, S. J. and Johnson, W. R. Airpower in Small Wars: Fighting Insurgents and Terrorist. Lawrence, Kansas: University Press of Kansas, 2003.
- "Counterinsurgency: FM 3-24". US Dept. of the Army. December 2006. http://usacac.army.mil/cac2/ Repository/Materials/COIN-FM3-24.pdf, Accessed on 16 December 2017.
- Galula, D. Counterinsurgency Warfare: Theory and Practice. Westport: Praeger Security International, 2006.

<sup>33</sup> Clausewitz, C. von. "On War". Clausewitz.com. https://www.clausewitz.com/readings/OnWar1873/BK1ch01. html, Accessed on 23 December 2017.

<sup>&</sup>lt;sup>34</sup> Maguinness. "Counterinsurgency...". 6.

<sup>35</sup> Schwartz. "Airpower...". 132.

- Jobbágy, Z. "From Effects-based Operations to Effects-based Force: On Causality, Complex Adaptive System and the Biology of War". PhD thesis. Leiden University, 2009.
- Maguinness, M. A. "Counterinsurgency: Is »Air Control« the Answer?". *Small Wars Journal*, 18 June 2009. http://smallwarsjournal.com/jrnl/art/coin-is-air-control-the-answer, Accessed on 25 December 2017.
- Marighella, C. "Minimanual of the Urban Guerilla". In Mallin, J. (ed), *Terror and Urban Guerillas:* A Study of Tactics and Documents. Coral Gables: University of Miami Press, 1982, 67–115.
- Meilinger, P. S. "Counterinsurgency from above". *Air Force Magazine*, July 2008. http://www.airforcemag.com/MagazineArchive/Pages/2008/July%202008/0708COIN.aspx, Accessed on 18 December 2017.
- Naylor, S. *Not a Good Day to Die: The Untold Story of Operation Anaconda*. New York: Berkley Caliber Books, 2006.
- O'Rourke, R. *The Fighting Instructions BRd 4487 Vol 2.10: Maritime Operational Logistics*. Fareham: MWC Puplication and Graphics Office Maritime Warfare Center, 2017.
- Porch, D. "Bugeaud, Gallieni, Lyautey: The Development of French Colonial Warfare". In Paret, P. (ed), Makers of Modern Strategy: From Machiavelli to the Nuclear Age. New York: Oxford University Press, 1986. 376–407.
- Read, D. "Airpower in COIN: Can Airpower Make a Significant Contribution to Counter-Insurgency?". Defence Studies 10/1-2. 2010. 126–151. https://doi.org/10.1080/14702430903392828. Accessed on 20 December 2010.
- Schwartz, N. A. "Airpower in Counterinsurgency and Stability Operations". *PRISM* 2/2. 2012. 127–134. http://cco.ndu.edu/Portals/96/Documents/prism/prism\_2-2/Prism\_127-134\_Schwartz. pdf, Accessed on 17 December 2017.
- Shadix, D. To Quell the Korengal. DTV Press, 2015.
- "Urbanisation". 21stcenturychallenges. https://21stcenturychallenges.org/urbanisation-2/, Accessed on 22 December 2017.
- West, B. No True Glory: A Frontline Account of the Battle for Fallujah. New York: Bantam Books, 2005.