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OPERATION UNIFIED PROTECTOR: AIR CAMPAIGN

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JCSP 42

Exercise Solo Flight

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CANADIAN FORCES COLLEGE – COLLÈGE DES FORCES CANADIENNES
JCSP 42 – PCEMI 42
2015 – 2016

EXERCISE *SOLO FLIGHT* – EXERCICE *SOLO FLIGHT*

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OPERATION UNIFIED PROTECTOR: AIR CAMPAIGN

The success of the military operations in Libya in 2011 has been a subject of debate since the conclusion of operations, with some pointing to the current state of Libya as reason why the mission was not effective.¹ Historically, military operations designed and conducted solely around an air campaign are rare, as air strikes are usually conducted in support of and in conjunction with ground operations as part of the campaign design. Would a campaign consisting only of North Atlantic Treaty Organization (NATO) and partner air assets² conducting reconnaissance and strikes without a coalition land presence be sufficient to fulfil the mandate of the United Nations Security Council Resolution (UNSCR) 1973 and complete the military mission as prescribed by NATO?

This paper will argue that although the Libyan operation has been lauded as a successful military campaign consisting of only air operations, the reality is that this was a tri-service campaign conducted by unconventional means. The defeat of the Gaddafi regime was not won solely by air power, but depended heavily on intelligence and targeting information from indigenous ground forces that were provided training and arms from the coalition. In support of this thesis, the historical context of the Libyan crisis will be examined, followed by an analysis of the operational campaign design that resulted, with parallels being drawn to the Afghan Model. A thorough analysis of the operation will be conducted, as well as an investigation of the successes and failures of this particular campaign design. The interpretations of the legality of

¹ Rachelle Marshall, "NATO Bombing in Libya Leads to Drawn-Out War, More Civilian Deaths," *Washington Report on Middle East Affairs* 30, no. 5 (2011), 27.

² While there was a Maritime Component Command (MCC) and naval assets deployed in support of OUP, it is outside of the scope of this paper and will not be discussed. The maritime component involved the enforcement of the arms embargo as prescribed by UNSCR 1970, launch of TLAMs from the ships, and housing and deployment of naval air assets.

this campaign under the auspices of a United Nations (UN) resolution will be reviewed and this campaign plan will be examined for viability in future conflicts.

BACKGROUND AND HISTORY

Even before 2011 the region of Libya has long been fraught with conflict and tension primarily due to the country's president, dictator Muammar Gaddafi.³ Gaddafi came to power in a military coup in 1969, becoming the president of a country that had gained its independence from colonial rule just eighteen years earlier and had no real experience with democracy.⁴ Outwardly Gaddafi promoted a sort of humble citizen-led democracy, attempting to outwardly promote a democracy of the masses, a stateless state. In reality, he ran one of the most repressive regimes in the Middle East. Gaddafi was not only a tyrant toward his own citizens in Libya, he was seen as the "Mad Dog of the Middle East" for his continual challenging of the dominant world order.⁵ Gaddafi was a sponsor of terrorist attacks on a Berlin nightclub in 1986, had questionable involvement in the 1988 bombing of Pan Am flight 103, and was a nuclear arms hopeful.⁶ Gaddafi and Libya had been troubled long before 2011.

The Libyan revolution that marked the precursor to the operations in Libya was spurred on by the Arab Spring. The Libyan people had ample reason to revolt, living under the rule of an authoritarian dictator for years and suffering from years of neglect. The beginning of the revolution is normally marked as 17 February 2011, and was promoted over social media under

³ There are multiple spellings of President Gaddafi's name, likely due to frequent translations. This paper will use the spelling Muammar Gaddafi throughout.

⁴ Jason Pack. *The 2011 Libyan Uprisings and the Struggle for the Post-Qadhafi Future*. (Basingstoke: Palgrave Macmillan, 2013), 28.

⁵ Mary Kaldor and Paul Anderson. *Mad Dogs: The US Raids on Libya*. (Great Britain, UK: Pluto Press, 1986.), 10.

⁶ Christopher Chivvis, *Toppling Qaddafi: Libya and the Limits of Liberal Intervention* (New York, NY: Cambridge University Press, 2014).

the title of the *Day of Rage*.⁷ Gaddafi had long used violence, torture and murder against his citizens, publicly slaughtering anyone who dared speak against his regime, sending a message of follow the regime or risk execution.⁸ The *Day of Rage* saw organised protests to which Gaddafi's forces responded with violence as armed helicopters gunned down protestors as directed by Gaddafi.

Subsequently, a wave of defections began to occur. Libyan ambassadors to six countries, including the United States (US) and the United Kingdom (UK), resigned. Gaddafi's justice minister defected to a rebel camp. Two pilots in the Libyan Air Force flew their jets into Malta as opposed to fire on unarmed civilians as ordered.⁹ Gaddafi's response to the rapidly escalating crisis was to reference Tiananmen Square, saying "The unity of China was more important than those protestors."¹⁰ He vowed that he would stay in power until the end, and threatened to "cleanse Libya house to house" if the protests continued.¹¹

In response to the increasing violence in Libya, a UN Security Council Resolution (UNSCR) was passed on 16 March 2011 – the implementation of a no-fly zone over the country to prohibit Gaddafi from continuing to use his air force to attack rebel held areas. In addition to the no-fly zone, UNSCR 1973 directed an immediate cease-fire and the approval of the use of any means to protect civilians with the exception of a foreign occupation. After the resolution passed, Gaddafi publicly announced he would abide by the cease-fire, but fighting and attacks on civilians continued. Soon thereafter, Gaddafi used state run radio to provide this chilling warning

⁷ Horace Campbell, *Global NATO and the Catastrophic Failure in Libya: Lessons for Africa in the Forging of African Unity* (New York: Monthly Review Press, 2013).

⁸ Aidan Hehir and Robert Murray. *Libya, the Responsibility to Protect and the Future of Humanitarian Intervention*. (Hampshire: Palgrave Macmillan, 2013), 222.

⁹ Chivvis, *Toppling Qaddafi: Libya and the Limits of Liberal Intervention*, 108.

¹⁰ Jason Pack, *The 2011 Libyan Uprisings and the Struggle for the Post-Qadhafi Future* (Basingstoke: Palgrave Macmillan, 2013).

¹¹ *Ibid.*, 58.

to Libyan civilians “We are coming tonight, and there will be no mercy.”¹² The Libyan operation would start only three days later.

The Afghan Model

The Afghan Model came about after the 2001 Afghanistan Campaign, after the toppling of the Taliban occurred in the absence of a large presence of United States ground forces.¹³ This model touts the success of such a campaign wherein indigenous allies act in place of coalition ground forces in order to coordinate with coalition aircraft using precision guided munitions (PGM) and a limited number of Special Operations Forces (SOF) personnel.¹⁴ This model has been somewhat controversial, calling for a series of necessary pre-conditions and required discrepancies in skill levels of the ground forces involved. It is stated that this model cannot succeed against first-world enemies, citing the skill and motivation level of most ground allies is usually less than their state opponents, which was initially the case in Libya.¹⁵ The Afghan Model speaks to the critical requirement of being able to take defended ground, either by superior skill or by the defenders of the ground being pre-emptively destroyed.¹⁶ The Afghan Model will be re-assessed against the context of the Libyan operation, identifying the successes of failures of the operational campaign that saw a group of untrained disparate group of rebels topple a well-armed military sponsored by a dictatorship of over 40 years.

¹² *Ibid.*, 246.

¹³ Stephen D. Biddle, "Allies, Airpower, and Modern Warfare: The Afghan Model in Afghanistan and Iraq," *International Security* 30, no. 3 (2005), 166.

¹⁴ *Ibid.*, 174.

¹⁵ *Ibid.*, 162.

¹⁶ *Ibid.*, 165.

CAMPAIGN DESIGN

Operational Concept

After 223 days of operations, the Libyan mission ended on 31 October 2011 with over 26,000 sorties flown, including 7,600 air strikes against 6,000 pro-Gaddafi targets.¹⁷ The Libyan operation was created on the basis of UNSCR 1970, which called for an arms embargo, and UNSCR 1973, and there were four mission sets that created the framework for the operational concept plan: maritime embargo, No-Fly Zone, civilian protection mission and a humanitarian mission.¹⁸ The humanitarian mission was the only mission set not enacted. It initially began as a United States led mission on 19 March 2011 under the name of Operation ODYSSEY DAWN (OOD), which included over 100 Tomahawk Land Attack Cruise Missile (TLAM) strikes against Gaddafi's Integrated Air Defence System (IADS), Surface to Air Missile (SAM) sites, and Command and Control (C2) facilities in order to permit coalition aircraft to fly unthreatened over Libyan airspace in support of enforcing the No-Fly Zone. Libya's IADS was demolished within 72-hours, which enabled the coalition's enforcement of the No-Fly Zone.¹⁹ Twelve countries participated in the opening US-led strikes with the US conducting the majority of the crippling airstrikes. After the existing Gaddafi military infrastructure was taken down during OOD, the subjects of the targets of the air strikes during transitioned to being primarily pro-Gaddafi targets of opportunity found during sorties.²⁰

¹⁷ Douglas Barrie, "Libya's Lessons: The Air Campaign," *Survival* 54, no. 6 (2012), 57-65.

¹⁸ Karl P. Mueller, *Precision and Purpose: Airpower in the Libyan Civil War*. (United States: RAND Corporation, 2015), 44.

¹⁹ *Ibid.*, 20.

²⁰ *Ibid.*

The US was reluctant to take the lead in the operation from the outset, as it was stated that Libya was not a country of special interest to the United States.²¹ Secretary of Defence Gates also publicly announced that an enforcement of a No-Fly Zone would no doubt include strikes on the Libyan air-defence systems, which could be negatively seen as the United States conducting air strikes on a Muslim nation.²² For that purpose, Gates stated that this operation would require heavy regional buy-in to give the operation credibility.²³ Both the Arab League and the Gulf Coalition Council had given their support to a No-Fly Zone.²⁴ Prior to the implementation of UNSCR 1973, Gaddafi's forces were gaining in strength and pushing toward the East, and it was feared that an attack on Benghazi civilians was forthcoming. While the implementation of the No-Fly Zone could be easily conducted, it had limited utility in isolation. Gaddafi's air forces were minimal, and the majority of his attacks against civilians were at the hands of mechanized machinery and ground forces. This would also have to be addressed if the UNSCR 1973 mandate of protection of civilians was to be completely fulfilled.

Great weight was put on the importance of avoiding civilian casualties, as the campaign was created on the basis of protecting civilians from further attack from Gaddafi. Attack sorties were conducted with a mentality of a zero-risk policy, and all aircraft were required to use precision guided munitions.²⁵ Intelligence collection was difficult at the onset of the mission and stocks of PGMs were low, thus causing the mission to proceed at a slower rate until more munitions could be acquired.²⁶ This was strategically risky, as the operation had to progress at a

²¹ Jason R. Greenleaf, "The Air War in Libya," *Air & Space Power Journal* 27, no. 3 (2013), 28.

²² Mueller, *Precision and Purpose: Airpower in the Libyan Civil War*, 20.

²³ *Ibid.*, 33.

²⁴ Christian F Anrig, "Allied Air Power Over Libya: A Preliminary Assessment," *Air & Space Power Journal* 25, no. 4 (2011), 89.

²⁵ Adrian Johnson and Saqeb Mueen, *Short War, Long Shadow: The Political and Military Legacies of the 2011 Libya Campaign* (Whitehall, London: Royal United Services Institute for Defense and Security Studies, 2012).

²⁶ *Ibid.*, 10.

fast enough rate to prove an effect to maintain public and political support, but cautiously enough to avoid civilian casualties. Because of this, the campaign was initially conducted on the basis of a restrictive Rules of Engagement (ROE) with a mandate to protect the Libyan population as well as to minimize collateral damage to the country's infrastructure in order to ensure the country able to get back to self sustainment after the end of the operation.²⁷ The coalition's ROE was initially quite restrictive but eventually loosened to include targets outside of Gaddafi's military forces including economic, commercial and transportation targets in order to demonstrate an escalation of force to force Gaddafi's withdrawal sooner.²⁸

Of particular importance for the coalition was the ability to rapidly strike regime forces who were actively attacking civilians, as it was nearly impossible to pre-plan strikes against mobile and dynamic targets such as Gaddafi's Main Battle Tanks (MBTs). In these cases, authority was delegated to the aircrew if positive identification (PID) was met and Collateral Damage Estimate (CDE) was low, then strike approvals would be given almost instantaneously, pending the approval of national authorities. Gaddafi's forces began to learn NATO's restrictions, mainly through open sources, and continued to place their assets into places where CDE would be too high to strike.²⁹ This precipitated a higher level of human intelligence from the rebel forces, which will be discussed later.

An important aspect of the operational design was the use of psychological operations (PSYOPS) toward both Gaddafi forces and the civilian population. A US EC-130J Commando Solo broadcast numerous radio messages to Gaddafi throughout the operation advising him to

²⁷ *Ibid.*, 30.

²⁸ *Ibid.*, 30.

²⁹ *Mueller, Precision and Purpose: Airpower in the Libyan Civil War*, 167.

step down or risk further destruction.³⁰ Leaflets were heavily used, targeting pro-Gaddafi soldiers and urging them to defect, or put down their arms and stop targeting civilians. Twenty various themes of leaflets were dropped, ranging from threatening potential international prosecution, to depicting specific Libyan areas and attack helicopters. It is thought that these leaflets potentially caused some Gaddafi loyalists to defect, although the effect of PSYOPS can be difficult to measure.³¹

Command and Control

Because of the speed at which the UNSCR 1973 was passed, there was little time to establish command and control relationships. The initial stages of the operation took place while debates about command structure were still ongoing. As the transition to offensive operations happened quite quickly, many were still prepared for an element of a humanitarian nature, so command of the strike mission was given to US African Command (AFRICOM), with supporting elements from US Central Command (CENTCOM) and US European Command (EUCOM).³² French President Sarkozy and British Prime Minister Cameron initially fought for a French-British command, insisting that their operations were being conducted concurrently but separately from AFRICOM's.³³ Because none of the other NATO forces could deliver quite the firepower required to provide the immediate destruction of Libya's IADS, the US agreed to lead for a transitory period.³⁴

While this sorted out the command structure for OOD, it did not answer the question as to who would lead the follow-on mission. There was considerable unease amongst the coalition

³⁰ Robert H. Gregory, *Clean Bombs and Dirty Wars: Air Power in Kosovo and Libya*. (Kentucky: Potomac Books, 2015), 199.

³¹ Mueller, *Precision and Purpose: Airpower in the Libyan Civil War*, 60.

³² *Ibid.*

³³ *Ibid.*, 40.

³⁴ Greenleaf, *The Air War in Libya*, 30.

members with the lack of clarity in the C2 structure. For example, the Norwegians brought their F-16s into theatre but held them back from flying until the C2 structure was clearly delineated.³⁵

NATO was a clear choice to lead the follow-on OUP operation as it had the existing headquarter facilities to command a coalition, and existing important ties in Europe and the Middle East that would facilitate a complex coalition. Many countries agreed including the UK, Turkey and Germany. France's President Sarkozy did not want a NATO-led coalition, instead pushed for a coalition of the willing. Eventually Sarkozy agreed to NATO-led command and all assets were transferred from AFRICOM to NATO command on 31 March, 2011, with the US still providing the preponderance of logistical and Intelligence, Surveillance and Reconnaissance (ISR) support.³⁶ Control of air assets was transferred from the Combined Air Operations Centre (CAOC) in Ramstein, Germany to the newly appointed CAOC in Poggio Renatico, while the North Atlantic Council (NAC) retained overall political authority over the operation.³⁷ OOD would become Operation UNIFIED PROTECTOR (OUP) on 31 March, which was the first major NATO air operation since Operation ALLIED FORCE in 1999.³⁸

Coalition Forces

The operations in Libya lasted almost three times longer than ALLIED FORCE, yet with only a quarter of the number of aircraft participating.³⁹ Despite OUP being NATO-led, only six European countries were able to deliver any offensive capability, with the preponderance of the effort, outside of American and Canadian forces, coming from Danish, French, Italian,

³⁵ Christian F Anrig, *Allied Air Power Over Libya: A Preliminary Assessment*, 89

³⁶ Mueller, *Precision and Purpose: Airpower in the Libyan Civil War*, 43.

³⁷ *Ibid.*, 46.

³⁸ Greenleaf, *The Air War in Libya*, 2837.

³⁹ Gregory, *Clean Bombs and Dirty Wars: Air Power in Kosovo and Libya*, 201

Norwegian and British strike aircraft.⁴⁰ There were also a number of non-NATO states contributing to the mission, including Sweden, Qatar and the United Arab Emirates (UAE). Even with this decreased number of aircraft assets, it has been assessed that there was a substantially greater success rate in targeting ground forces in Libya than in Kosovo, no doubt due to increased targeting procedures and advances in PGMs.⁴¹

OUP had quite an interesting force structure, with 14 NATO members and four partner countries contributing aircraft⁴² In order to ensure targeting was not scrutinized at high political levels as in ALLIED FORCE, the NAC established an internal “Striker Group” which ensured the majority of the targeting decision making process was formally made by all 28 NATO countries. However, essentially the decisions were decided by the eight NATO countries that actually participated in the strikes: the US, Canada, the UK, France, Norway, Denmark, Belgium and Italy.⁴³

In addition to the Striker Group there were important stakeholders that had a say in the targeting process: the senior national liaison officers located at the CAOC, called red-card holders. Various countries had different interpretations on the limitations of the UNSCR 1973, and the rapidity of the operation beginning did not allow for a definitive resolution of all of the varying interpretations. This necessitated a standing procedure where national red-card holders were used to resolve specific targeting situations where a previous consensus could not be reached between alliance members.⁴⁴ These red-card holders ensured that missions assigned to their assets met the objectives as set by their national policy and could veto the use of an asset

⁴⁰ Barrie, *Libya's Lessons: The Air Campaign*, 57-658.

⁴¹ Gregory, *Clean Bombs and Dirty Wars: Air Power in Kosovo and Libya* 201.

⁴² *Ibid.*, 163

⁴³ Mueller, *Precision and Purpose: Airpower in the Libyan Civil War*, 46.

⁴⁴ *Ibid.*, 143.

for a specific mission. These individuals would be present in the operations room during kinetic operations, and were an integral part of the decision making tree during dynamic targeting, as only 10% of sorties launched with a deliberate, pre-planned target.⁴⁵ This was a lengthy and cumbersome process in the early days of the operation, but as the operation progressed the CAOC staff became familiar with each nation's caveats and were able to pre-empt any areas where conflict could potentially occur.

While OOD started as a US-led mission, the preponderance of the strike missions after the transition to OUP came from European assets, with over 65% of strike sorties coming from France and the UK.⁴⁶ Of note, there was also significant buy-in and participation from regional countries, which was an important aspect of maintaining the perception that this was more than just the West intervening in an African problem. The UAE, Qatar and Jordan participated in the campaign, initially flying missions coupled with partner nations the US, France and the UK respectively.⁴⁷ Jordan participated in No-Fly Zone enforcement missions while the UAE and Qatar participated in air strikes.⁴⁸ By June of 2011, these nations were flying solo missions, also being permitted to integrate into the Combined Air Operations (CAMEO) packages.⁴⁹

Attack helicopters were added to the coalition in June, providing both a possibility for increased precision strike capabilities as well as adding a significant psychological effect.⁵⁰ These sorties were flown in coordination with fixed wing aircraft and controlled by Airborne

⁴⁵ Christian F Anrig, *Allied Air Power Over Libya: A Preliminary Assessment*, 89.

⁴⁶ Gregory, *Clean Bombs and Dirty Wars: Air Power in Kosovo and Libya*, 163.

⁴⁷ Johnson and Mueen, *Short War, Long Shadow: The Political and Military Legacies of the 2011 Libya Campaign*, 132.

⁴⁸ *Ibid.*, 32.

⁴⁹ *Ibid.*

⁵⁰ Tim Ripley, *British Army Aviation In Action: From Kosovo to Libya*, South Yorkshire: 2011, 267.

Warning and Control System (AWACS) aircraft and attacked both ground and maritime targets, including the high speed fast attack aircraft sent by Gaddafi to attack naval vessels⁵¹.

ALLIANCE WITH THE REBELS

During OOD and the beginning of OUP, intelligence gathering and targeting was difficult due to a lack of assets able to provide persistent coverage and the adaptation of Gaddafi's forces. At the beginning of OOD, Gaddafi's militarized force was very easy to pick out by ISR aircraft and satellites. However, Gaddafi was smart and began to use the same civilian patterned technical vehicles that the rebels were using, thus creating targeting confusing and delays.⁵² The simple but unprecedented solution came with the rebels using social media to provide intelligence to NATO. By the end of the campaign, the sophisticatedly simple targeting network of amateur sensors including people on the ground using cell phones, Twitter and Google Maps offered the same precision for targeting that a Joint Terminal Attack Controller (JTAC) could.⁵³ This was achieved via combining air power with smart phones and social media. How fitting and somewhat ironic that the same social media medium that started the Libyan campaign spurred on by the Arab Spring would be the one to hasten it to a close.

Gaddafi's forces modified their tactics as the campaign went along and the rebels modernized their social media use to improve their military capabilities and pass targeting coordinates. The rebels made use of crowdsourcing on Twitter to gain military knowledge. For example, they asked Twitter followers to tell them the minimum arming distance of a discarded BM-21 Grad 122-mm multiple rocket launcher they had come across.⁵⁴ Rebels also gained

⁵¹ Christian F Anrig, *Allied Air Power Over Libya: A Preliminary Assessment*, 89101.

⁵² Gregory, *Clean Bombs and Dirty Wars: Air Power in Kosovo and Libya*, 201.

⁵³ *Ibid.*, 201.

⁵⁴ *Ibid.*, 186.

information from an unlikely source: defectors from the Libyan Air Force. The defectors acted as frontline leadership for the rebels and provided information on capabilities and limitations of NATO strike aircraft in order to better interface with targeting capabilities. They also imparted the knowledge of how to plot friendly and enemy positions using Google Earth, and reported back battle damage assessment to NATO after the completion of an airstrike using Twitter.⁵⁵

The rebels used Twitter and Google Earth to communicate locations of Gaddafi forces in order to assist with targeting. The rebels were quite active in passing information to the Twitter address @NATO, and improved their tweeting ability as the campaign went on. Initially the requests for airstrikes were not actionable intelligence, such as messages like “HEY @NATO I SEE TANKS, COME BLOW’EM UP 4 ME PLZ TY #needbackup #war #gaddafisux #bieberfever.”⁵⁶ After a few weeks and some replies back from @NATO requesting latitude and longitude in order to turn rebel intelligence into coordinated air strikes, the rebels began improving the quality of their tweets, even going as far as sending a picture along with coordinates.⁵⁷ After NATO publicly acknowledged that its intelligence fusion cell monitored tweets to develop potential targets, the frequency and precision of rebel tweets increased, and they soon read like the following: “CONFIRMED: Coordinates for positions of more Gaddafi forces near Misrata: 32125190N, 15050767E – HIT THESE TOO! #Libya.”⁵⁸ NATO’s intelligence cell also improved on their ability to develop a target set from rebel tweets, with their response time having decreased from hours to minutes at the end of OUP.⁵⁹

⁵⁵ *Ibid.*, 202.

⁵⁶ *Ibid.*, 188.

⁵⁷ *Ibid.*, 190.

⁵⁸ *Ibid.*, 191.

⁵⁹ *Ibid.*, 202.

SUCCESS AND FAILURES OF THE MISSION

Using analysis of sheer numbers and mission outcome alone, it appears that the air strike model did have considerable success. By the end of OUP, during the 223 days of strike sorties the coalition destroyed over 400 tanks, and 600 tanks and Armoured Personnel Carriers (APCs), many of which were due to the assistance of the rebel's targeting via social media.⁶⁰ While the coalition air strikes did have measurable success, they were limited during operations in built up area like city centres, due to the low tolerance for collateral damage. This issue was persistent, and illustrated by the case that occurred when the coalition refused to strike the Tamin building in the middle of Misrata. This building was the highest point in Misrata and often a hold-up for Gaddafi snipers who caused incredible civilian casualties. This reluctance to strike targets in city centres problem was exacerbated when Gaddafi's forces began to use the same technical vehicles as the rebels and hid their artillery pieces inside mosques and schools.⁶¹ The rebels began to attempt to distinguish themselves by painting the top of their technical certain colours or adding a specific letter to the hood, and changing the colour or letter every time Gaddafi forces followed suit.⁶² The rebels also began to acquire various pieces of military equipment such as tanks, APCs and artillery, thus creating confusion and inability to provide PID for targeting.⁶³ In one particular situation, a rebel had captured a Gaddafi tank and was driving it back to rebel-held territory with the turret still pointing at his fellow rebels and a NATO airstrike hit the tank, mistaking it for a Gaddafi tank about to attack.⁶⁴ Interestingly enough, the rebels never reported

⁶⁰ *Ibid.*, 200.

⁶¹ Mueller, *Precision and Purpose: Airpower in the Libyan Civil War*, 55.

⁶² *Ibid.*, 58.

⁶³ Gregory, *Clean Bombs and Dirty Wars: Air Power in Kosovo and Libya*, 211.

⁶⁴ Mueller, *Precision and Purpose: Airpower in the Libyan Civil War*, 58.

these errant strikes to NATO as they feared NATO would stand down operations for a few days which was more of a risk than potentially losing more of their own fighters.⁶⁵

Another issue was the varied ops tempo of air strikes which ebbed and flowed based on the amount of PGMs available to strike targets. There were instances when no precision munitions were available, thus forcing a large gap in the coalition's strike missions. This was particularly evident after the transition to OUP, and areas would go from being struck multiple times a day to long periods of time with no strikes. NATO forces would strike a target of opportunity and Gaddafi's forces would scatter but then reappear because there were no follow-on attacks in the coming days or weeks and the rebels were not yet able to hold the ground. Some analysts believe that this potentially caused the conflict to prolong, as areas had to be struck multiple times in order to regain progress initially made.⁶⁶ As told by Karl Mueller in his report *Precision and Purpose: Airpower in the Libyan Civil War*, one rebel fighter said of the inconsistent operations tempo:

A big problem was defending our positions from counter-attack. We would drive away Qaddafi forces with the help of NATO airpower. And then the Qaddafi units would quickly regroup and counterattack. Most of our casualties were from the Qaddafi counter-offensives, when NATO didn't re-attack to support us.⁶⁷

Various interpretations of UNSCR 1973

While the success of the mission for the stability of Libya has been hotly contested, another contested issue is the possible misinterpretation of the UNSCR 1973 by various countries. The UNSCR 1973 wording that lent to the most diverging interpretation is that

⁶⁵ *Ibid.*, 58.

⁶⁶ *Ibid.*, 55.

⁶⁷ *Ibid.*, 57.

member states were authorized to “... take all necessary measures ... to protect civilians and civilian populated areas under threat of attack ... while excluding a foreign occupation force of any form on any part of Libyan territory.”⁶⁸ This wording was vague and it had the effect of causing each participating country to interpret the wording to tailor their mission according to their own interests. While OUP was a coalition effort, each participating country worked within the NATO prescribed mission mandate while simultaneously conducting unilateral missions that perhaps fell outside the mandate based on their interpretation and national interests. President Obama, as well as President Sarkozy and Prime Minister Cameron had clearly called for the departure of Gaddafi prior to the drafting of the UNSCR 1973, but the focus switched to protection of civilians after the resolution passed.⁶⁹ To further add to the confusion, Obama stated during a 28 March conference that regime change was not part of the mission mandate.⁷⁰ Perhaps a viable alternative would have been to use military force to achieve the protection of civilians while working political and diplomatic angles in order to force a regime change.

To further add to the confusion, the Arab League had supported the enforcement of a No-Fly Zone, but did not support the civilian protection mission and flip-flopped in its support of the mission post the passing of the UNSCR 1973 and commencement of operations.⁷¹ The confusion as to what constituted a viable interpretation of the mandate of the UNSCR continued after the mission had begun, forcing NATO foreign ministers and the Striker Group to meet again in mid-April 2011 to determine which targets were viable. It was at this meeting where they determined that any of Gaddafi’s forces were fair game as long as attacks against civilians were in progress,

⁶⁸ UN Security Council Meetings Coverage. “Security Council Authorizes a ‘No-Fly Zone’ over Libya, Authorizing ‘All Measures Necessary’ to Protect Civilians, by Vote of 10 in Favour with 5 Abstentions.” Last modified 17 March 2011, <http://www.un.org/press/en/2011/sc10200.doc.htm>.

⁶⁹ *Ibid.*, 41.

⁷⁰ *Ibid.*, 30.

⁷¹ *Ibid.*, 30.

and they would focus their efforts on two main elements: his command and control and lines of communication for re-supply for Gaddafi's forces and his military forces that were posing threats to the civilian population.⁷²

Many countries provided varying levels of asset support based on their interpretation of the UNSCR 1973. For example, Sweden participated as a non-NATO country, and viewed the UNSCR conservatively, offering up only reconnaissance aircraft and not participating in the strike mission.⁷³ Countries such as the US, France and the UK interpreted the wording to mean that every element of Gaddafi's power base was permitted to be struck to prevent further harm to civilians, including ground formations, military installations and government infrastructure.⁷⁴ Turkey assisted in enforcing the No-Fly Zone but refused to participate in striking Gaddafi's ground forces.⁷⁵

One of the most hotly contested actions taken by some of the participating countries was the arming of the anti-Gaddafi rebel force. Nowhere in UNSCR 1973 nor the NATO mission statement specified supporting rebels or assisting with a regime change, but there were multiple countries that armed and assisted the rebels. Four countries specifically provided arms to the rebels: France, Italy, the UAE and Qatar. They did so by parachuting arms into Libya as well as alerting naval and air forces not to interdict specified cargo planes and naval vessels heading to Libya from Qatar and the UAE.⁷⁶ These countries stated that providing the arms was merely to assist the rebels with self-defence. While it may be difficult to know the full intention of the United Nations Security Council when drafting UNSCR 1973, it appears that OUP turned into a

⁷² *Ibid.*, 30.

⁷³ Gregory, *Clean Bombs and Dirty Wars: Air Power in Kosovo and Libya*, 163.

⁷⁴ *Ibid.*, 163.

⁷⁵ *Ibid.*

⁷⁶ *Ibid.*, 166.

proxy war fought on behalf of an uprising rebel movement with regime change as the main goal.⁷⁷

FUTURE VIABILITY OF LIBYAN CAMPAIGN MODEL

The NATO operation came to a half after 223 days of operations, with many targets struck and naval vessels headed to or from Libya interdicted.⁷⁸ Was the 2011 mission in Libya a success? As to whether the operation was a political success could be debated, as it seems that the rebels won by absolute victory and not a mediated peace agreement. One would argue, myself included, that it was a success militarily in that the desired outcome was primarily achieved. NATO saved many thousands of lives from injury and death and significantly minimized collateral damage by insisting on PGMs and adhering to strict guidelines when targeting. This all occurred without a single allied casualty and cost a several billion dollars overall, a fraction of the cost spent on previous interventions like in the Balkans and Afghanistan.⁷⁹ But it would be short-sighted to chalk it up to a complete NATO allied victory. Some argue that OUP was a proxy war fought on behalf of a rebel revolution, and success came only as an accident and highlighted an incredible shortcoming in NATO's capabilities.⁸⁰ And to be fair, the victory rests predominantly with the rebels. This was not the "clean" airpower campaign that was promised, without the use of ground fighters. There were ground fighters indeed, just not ones under the command and control of NATO, a point that was further punctuated when the rebels tortured and murdered Gaddafi, in direct opposition of NATO's

⁷⁷ Johnson and Mueen, *Short War, Long Shadow: The Political and Military Legacies of the 2011 Libya Campaign*, 1

⁷⁸ Florence Gaub, *Six Strategic Lessons Learned from Libya: NATO's Operation Unified Protector*. (Research Division NATO Defense College, 2012), 4.

⁷⁹ Ivo H. Daalder and James G. Stavridis, "NATO's Victory in Libya: The Right Way to Run an Intervention," *Foreign Affairs*, no. March/April 2012 (2012).

⁸⁰ Johnson and Mueen, *Short War, Long Shadow: The Political and Military Legacies of the 2011 Libya Campaign*, 1

publicly stated goal that they were not intending to force a regime change. Although the rebels initially constituted a ragtag organization, they benefitted tremendously from training provided from outside their country, equipment airdropped to them and airstrikes conducted at vital points that allowed them to seize and hold ground.

With that said, would this operational campaign design be a viable model for future conflict? One of the key elements in the joint targeting cycle is the collection of information on possible targets. The Libyan campaign showed that coalition forces had a difficult time collecting sufficient quality intelligence to develop their own targets once the standing military infrastructure was destroyed. Coalition airpower alone could not succeed once the broader target set was destroyed. Ground presence proved necessary to finesse the finer target sets, particularly dynamic targets of opportunity. Without the rebels, the coalition's targeting processes would have grind to a halt after the initial strikes against the IADS and military installations. Without the assistance of the rebels providing targeting via social media, the campaign would have had limited success in that it would have been able to enforce a No-Fly Zone and target Gaddafi's larger military installations and C2 nodes based of its own intelligence, which would have had a limited effect on protecting civilians. But without follow-on intelligence, the successful protection of civilians would have been inadequate.

ASSESSMENT AND CONCLUSION

Air power is a clear enabler of Effects Based Operations, but is not an entity unto itself. In an ironic twist, one of the few times that airpower alone has been thought to have achieved strategic success was the 1986 El Dorado bombing of Libya in retribution for Gaddafi's terrorist

attacks on a German nightclub that killed US servicemen.⁸¹ While this may have stopped him from continuing along the path of sponsoring overt terrorism, it did not stop him from covertly sponsoring terrorist attacks such as the Lockerbie bombing.⁸²

The Libyan campaign of 2011 represents a slant on the Afghan Model, achieving results with a combination of precision airpower, ground advisors, and supplies and training provided to local fighters. Avoiding collateral damage is another key facet of the Afghan Model, one that requires a partner on the ground who is able to provide the vital aspect of ground witnessing and providing further, finer detail. One of the key differences of the Libyan campaign from the Afghan model was the lack of synchronization between the coalition and the rebels. Air strikes in Afghanistan were precisely synchronized with the Northern Alliance movements, whereas in Libya, NATO's policy directly stated that the coalition was not to serve as the air power arm of the rebels, even if there was an underlying cooperation when it came to targeting.⁸³

It was necessary for the coalition to conduct air strikes gradually, as the rebels did not have forces trained and able to seize a large amount of ground in the early days of the campaign, nor did NATO have sufficient PGMs to do so. NATO's ability to conduct a protracted air campaign, forced somewhat by circumstances and not completely by choice, slowly wore Gaddafi and his forces down thus granting the coalition victory. In the end, the Libyans themselves made the final decision of how to deal with a regime, western air power simply assisted in shifting the balance of power and setting the conditions for rebel action. It is important to remember that although it is often touted as such, OOD and OUP were not solely air campaigns and were indeed tri-service operations conducted by unconventional means. The use

⁸¹ *Ibid.*, 27.

⁸² Francis A. Boyle. *Destroying Libya and World Order*. (Atlanta, GA: Clarity Press Inc., 2013), 74.

⁸³ Christian F Anrig, *Allied Air Power Over Libya: A Preliminary Assessment*, 89.

of a ground force of some sort, be it coalition or indigenous, is an absolute imperative in future operations that will involve dynamic targeting.

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