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Chapter 9

The Evolution of Peacekeeping Intelligence: The UN's Laboratory in Mali

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Abstract This chapter looks at how peacekeeping intelligence expanded in MINUSMA and how it worked in practice. Apart from reviewing the main innovations and structures, and the means for information gathering, processing, dissemination and direction, the chapter identifies many challenges and summarizes these by means of three dichotomies. First, the European countries brought in the innovative intelligence capabilities, heavily based on advanced NATO procedures, but the main force was mostly populated with African soldiers who had the greater cultural familiarity and knew more of the locally spoken languages. Marrying the Western and African capabilities turned out to be challenging due to incoherent procedures, systems, levels of experience as well as reporting mechanisms. In addition, information-sharing from classified NATO databases proved difficult. Second, whereas several innovative intelligence units produced comprehensive intelligence reports focusing on the longer term, MINUSMA's military leadership valued current and security-related intelligence more, but that was insufficiently available within the organization. Third, the contributions of military and civilian actors were largely stovepiped and lacked sufficient sharing, coordination and integration. The reasons underlying this were organizational, political as well as technical in nature. Coordination boards were installed but these were not fully effective due to a lack of directive powers.

Keywords Minusma · ASIFU · JMAC · Peacekeeping intelligence · Stovepiping

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9.1 Introduction

Most modern military missions take place in complex environments with mandates that are often broad in scope and involve a multitude of political, socio-economic and security challenges. As a result conventional intelligence aimed at information regarding states, militaries, and target individuals is no longer sufficient. Rather, armed forces have to gain extensive knowledge of local populations and their societies as well. In their study ‘Left of Bang’, US Lieutenant General Michael Flynn and two colleagues¹ stressed this:

The lesson of the last decade is that failing to understand the human dimension of conflict is too costly in lives, resources, and political will ... a new [intelligence] concept should seek to explain how populations understand their reality, why they choose either to support or resist their governments, how they organize themselves socially and politically, and why and how their beliefs transform over time.

Many researchers and practitioners have focused on the rise of such new forms of intelligence, based mostly on the recent missions in Iraq and Afghanistan—missions that were dominated by US and NATO troops.² These studies reflected new initiatives that were labelled as population-centric intelligence,³ cultural intelligence⁴ and ethnographic intelligence,⁵ among other names. These initiatives have contributed to our understanding of how to gain a wider and more comprehensive intelligence picture that covers multiple and interrelated domains including but not limited to political, socio-economic and security issues.

Ironically, before the United States and NATO learned of the importance of stability operations and the need for new forms of intelligence, the United Nations

¹ Flynn et al. 2012, p. 14.

² See e.g., Flynn et al. 2010; Kitzen et al. 2013, pp. 159–191.

³ Kitzen 2012.

⁴ Spencer and Balasevicius 2009.

⁵ Perugini 2008, pp. 213–227.

had been evolving its own practice of intelligence in peace and stability operations, focusing also on the wider population-centric approach. Because of the array of UN actors in the field, from peacekeepers to humanitarian workers to development personnel, the United Nations was pre-disposed to take a comprehensive approach, though certainly not in a systematic fashion.

Though the United Nations is less equipped with monitoring technology and other resources than NATO or coalition forces formed by Western nations, the world organization has shown innovation over time that can benefit the wider understanding and practice of intelligence. To increase our appreciation and understanding of the UN's approach, case studies of specific missions can show the expansion in the scope and capability of UN intelligence, gradually moving towards what we call 'comprehensive intelligence'. What sources, methods and architectures have UN missions used to gather, process and disseminate intelligence? The United Nations is evolving towards a comprehensive approach as it incorporates large civilian components to complement its military instruments, though the methods and means to integrate them have proven challenging.⁶ Separate agencies are tasked to care for refugees, internally displaced persons, children, women, all loosely networked with a plethora of non-governmental organizations. These UN agencies and organizations have the advantage of experience: they are in the field long before the peacekeeping mission arrives and will stay long after the mission leaves. They have built long-term relationships with the local populations that they serve, and can benefit by gaining information and situational awareness.

In part because of these relationships, the United Nations has been hesitant to even use the term intelligence. In traditional peacekeeping, as practised during the Cold War, the use of the term 'intelligence' was banned.

Initially the United Nations even shunned all types of intrusive gathering of information because it felt it could not afford to lose credibility or tarnish its image as an impartial mediator by opening itself to accusations of employing covert or misleading techniques to gather information.⁷

The United Nations altered its stance towards the term and practice of intelligence, mainly due to the complex and dangerous environments in which many post-Cold War UN peacekeeping missions took place. As a result UN peacekeeping missions gained new capabilities,⁸ and intelligence in peacekeeping has become more accepted, as well as increasingly professionalized.

In looking at the recent evolution of peacekeeping intelligence, the mission in Mali stands out. The Multidimensional Integrated Stabilization Mission in Mali

⁶ Norheim-Martinsen and Ravndal 2011.

⁷ Dorn 2010, p. 277.

⁸ In the twenty-first century, the United Nations added new "intelligence" components to its missions, though avoiding the term explicitly. For instance, in 2005–06, it instituted "Joint Mission Analysis Centres" and the "Joint Operations Centres" in its peacekeeping operations and formulated a general policy for them (United Nations, Department of Peacekeeping Operations 2006).

(MINUSMA) has shown the greatest expansion of intelligence of any peacekeeping mission in the twenty-first century. It has significant and innovative intelligence capabilities, illustrating the UN's attempt to gain greater intelligence, moving in the direction of comprehensive intelligence. This chapter looks at how peacekeeping intelligence evolved in the mission, particularly within the military component. It focuses on the key innovation: the All Sources Information Fusion Unit (ASIFU). It examines its main activities and structures, the means for information gathering, processing, dissemination, as well as the direction that is provided.

9.2 MINUSMA and Its Intelligence Design

The establishment of MINUSMA by the UN Security Council in Resolution 2100 on 25 April 2013 was the result of a number of intertwined events. The northern regions of Mali had long complained of a lack of democratic power-sharing, leading to resentment and a loss of state control. Furthermore, the region became increasingly unstable due to illicit trafficking of arms, drugs and people, especially with heavily armed Tuareg fighters returning from Libya after the fall of the Gaddafi government in 2011. This explosive cocktail led to mutinies in the country, a military coup in March 2012 before some democratic order was restored and a marginalization of the Armed Forces of Mali (FAMA), which constantly lacked ammunition and reinforcements to fight in the North. At the invitation of the government, France deployed forces to push back advances by rebels, who were based in the North, and by some other groups widely labelled as 'terrorists.' A peace process was fostered with the rebels. An African Union mission was temporarily deployed in early 2013⁹ before the United Nations took over the peacekeeping duties, even as an Ebola crisis hit other countries in West Africa.¹⁰ In broad terms, it was MINUSMA's task to promote a stabilization of key population centres, and guide the political/peace process. It also carries the mandate for 'protection of civilians,' which had become standard in twenty-first century peacekeeping operations.

By 2015, MINUSMA consisted of close to 9,000 military personnel, 1,000 police, 500 international civilians, and 120 UN volunteers, along with many local hires.¹¹ The military troops originated from 41 different countries including European countries (e.g., Denmark, Germany, Sweden, and The Netherlands), African countries (e.g., Egypt, Gambia, and Niger) and others, notably China. In

⁹ The African-led International Support Mission to Mali (AFISMA) was authorized by the UN Security Council in resolution 2085 of 20 December 2012. It was a military mission of the Economic Community of West African States (ECOWAS), led by Nigeria. The first forces arrived on the ground in January 2013.

¹⁰ Fortunately, the Ebola epidemic did not spread to Mali, though about eight fatalities occurred in the country, including in Mali's capital, Bamako. World Health Organization 2015.

¹¹ United Nations 2015a, b. The site gives currently authorized figures (August 2016) of 13,300 military personnel and 1,920 police.

addition to the Force Headquarters (FHQ) in the capital Bamako, MINUSMA had three sector headquarters (SHQs) that commanded approximately 4,000 military personnel each. SHQ-West was headquartered in Timbuktu, whereas SHQ-East operated from Gao. A SHQ-North was created in 2014, based in Kidal and covering a smaller but very turbulent region.

African forces contributed the majority of troops on the ground, conducting patrols and seeking to maintain security. By contrast, European countries contributed key enabling forces that played to European strengths: command units, communications, special operations, attack helicopters and intelligence units.

MINUSMA's force design contained the typical military intelligence units (designated by the number 2, according to standard military staff convention) within its battalions (S2), Sector headquarters cells (G2) and Force Headquarters cell (U2). These units were supposed to provide MINUSMA's commanders with current intelligence, especially relating to security.

In addition, a civil-military Joint Mission Analysis Centre (JMAC) was established in accordance with standard UN procedures for missions since 2006 to produce mission-wide and longer-term analysis for the senior management.¹² Also a Joint Operations Centre (JOC) kept track of the situation on the ground, focusing on unfolding events and the immediate future. However, these mechanisms were not enough, since little active processing and analysis of information was done by the relatively small units listed above. These civilian structures were understaffed at the regional level. To make matters worse, a significant proportion of the civilian and local military personnel were illiterate. To help address the deficiencies, Under-Secretary-General for Peacekeeping Hervé Ladsous requested that MINUSMA be enhanced by an additional military intelligence unit that was coined ASIFU, the All Sources Information Fusion Unit, a term borrowed from NATO. After finding European countries willing to provide the personnel and forces, the ASIFU was deployed from March 2014.

The main mission of ASIFU was to provide intelligence capacity and 'contribute especially to traditionally non-military intelligence analysis, such as illegal trafficking and narcotics-trade; ethnic dynamics and tribal tensions; corruption and bad governance within Mali and MINUSMA area of interest'.¹³ This wide range of topics was often referred to as X-PMESII, indicating that information was to be gathered and analyzed on Political, Military, Economic, Social, Infrastructure and Information domains (again, following NATO conventions). The X (cross) implied that these domains were interconnected and could not be seen separately. Doing this, ASIFU's role is

...to improve the processing and production of MINUSMA broad information and intelligence in order to have accessible and useable information on time. This will support the decision-making processes on the operational (force headquarters) and tactical (sector

¹² For an elaboration on JMACs, see Ramjoué 2011. See also Chap. 8 by Theunens.

¹³ PowerPoint presentation by representative of UN Department of Peacekeeping Operations, Carlisle Barracks, United States, 28 January 2015.

headquarters) level. But ASIFU should also be able to support the strategic level: the special representative of the secretary-general through the JMAC and UNDSS.¹⁴

ASIFU would also collect and analyze information in order to support MINUSMA activities such as:

- The provision of humanitarian aid;
- The recovery and stabilization efforts;
- The facilitation of peace dialogue.¹⁵

ASIFU headquarters was attached to the UN's mission headquarters in the capital, Bamako, and fell under direct command of MINUSMA's Force Commander. ASIFU's capacity consisted initially of 30 military officers from seven European countries (Denmark, Estonia, Finland, Germany, Norway, Sweden and The Netherlands). In time this capacity would increase to approximately 70 by the end of 2015. The primary units within ASIFU HQ were an Analysis Fusion Cell (AFC), a Collection Coordination and Intelligence Requirements Management (CCIRM) section, several liaison officers and one civilian advisor from the Dutch Ministry of Foreign Affairs.

In addition, ASIFU HQ had two ISR (Intelligence, Surveillance and Reconnaissance) companies under its command that focused on intelligence gathering and analysis. The first company consisted of 55–65 mostly Dutch soldiers¹⁶ and was deployed in the eastern province of Gao from March 2014 onwards. As such it was worked within MINUSMA's Sector East, based at the SHQ. The company had several distinct capabilities including human intelligence (HUMINT), civil-military interaction and Unmanned Aerial Vehicles (UAVs). The second unit was the Swedish ISR Task Force. Its intelligence capacity was approximately twice the size of the Dutch unit and started to operate a year later, in March 2015. It was situated in the western province of Timbuktu and attached to MINUSMA's SHQ West. The capabilities of the Swedish Task Force included, amongst others, military reconnaissance personnel, a weapons intelligence team, and small UAVs.

Finally, MINUSMA's Force Commander had two other important assets largely dedicated to the intelligence process, though not under ASIFU. The first was the Special Operations Land Task Group (SOLTG), a unit of approximately 90 Dutch Special Forces. The second unit was a Dutch helicopter detachment consisting of Apache and Chinook helicopters. Both units operated throughout the entire country but were co-located with the Dutch ISR company in Gao. Figure 9.1 presents the organizational structure of MINUSMA, emphasizing the intelligence components. Figure 9.2 presents a map of the most relevant geographical locations.

¹⁴ First Commander ASIFU, Col. Keijzers, cited in Karlsrud and Smith 2015, p. 11.

¹⁵ 1 NLD ISR COY Information Brief. PowerPoint presentation, 13 September 2014.

¹⁶ Several other countries contributed soldiers to the ISR Company, including Belgium, Denmark, Estonia and Switzerland.

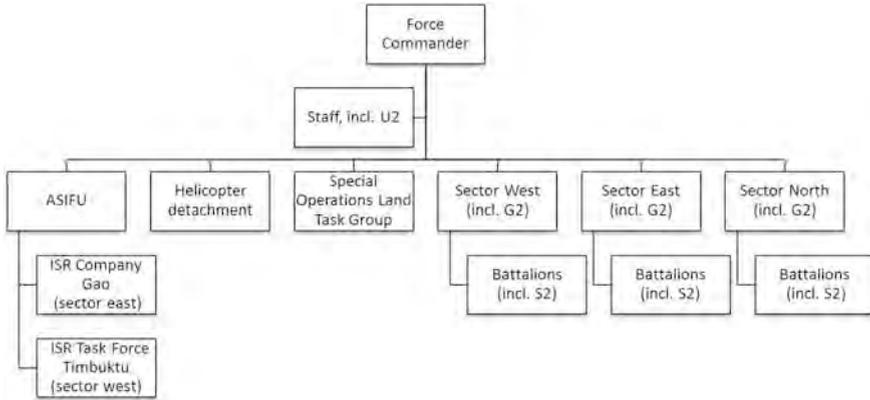


Figure 9.1 MINUSMA Force Intelligence Organisational Structure in 2014–2015. *Source* Compiled from relevant sources by Sebastiaan Rietjens

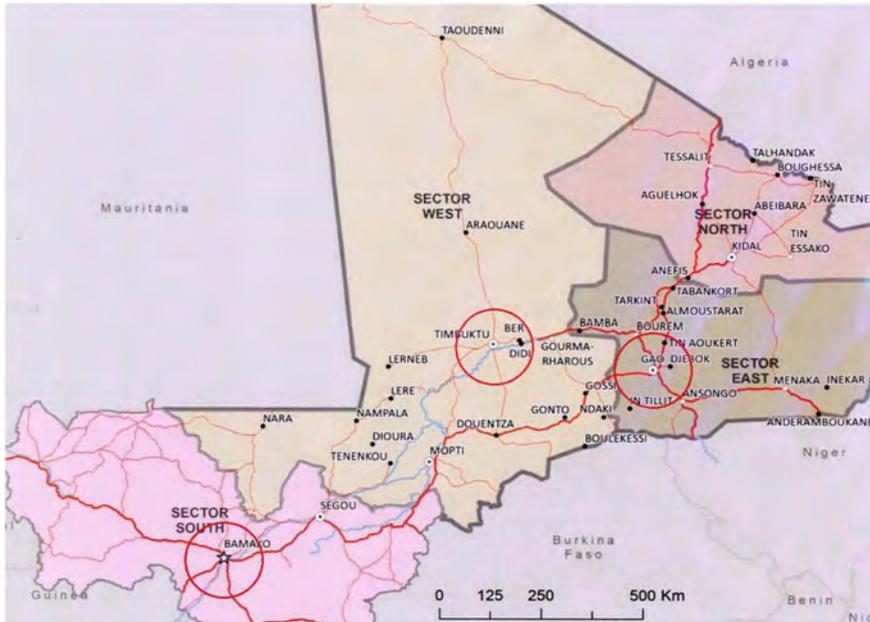


Figure 9.2 Map of Mali with relevant geographical positions. *Source* MUNISMA ASIFU briefing 2015

In order to understand the operation of ASIFU and the mission’s other military intelligence units, the researchers on this project conducted 93 semi-structured interviews with key MINUSMA personnel (mostly from The Netherlands) who had been deployed between March 2014 and December 2015. We also analyzed

documents from the mission, such as available intelligence reports, standard operating procedures and meeting reports. Lastly, the first author attended several pre-deployment exercises of ASIFU and SOLTG personnel and made a 2.5 week field visit to Mali in late 2015 to observe the mission firsthand. From these various sources, and subsequent feedback and validation, an account of the mission's evolution can be presented along with an analysis of the intelligence cycle (direction, collection, processing and dissemination) within the mission.¹⁷

9.3 MINUSMA's Intelligence Process in Practice

9.3.1 *Direction*

When MINUSMA first took over from an African Union force in 2013, the mission's first Force Commander, Major General Jean Bosco Kazura of Rwanda, provided very limited intelligence direction. As there was also no overall campaign plan, the various intelligence units did not have clear information requirements on which they could focus their intelligence efforts. As time progressed, the number of 'top-down' information requirements from the Force Commander and his staff increased. These requirements, however, remained quite broad, ad hoc and generally did not seem to result from a structured intelligence collection plan.

Because of this lack of direction, ASIFU took the initiative to develop an intelligence collection plan based upon the most relevant information requirements that it identified for the Force Commander. Mainly because of its comprehensive character this collection plan had a very broad scope and lacked focus. One of the respondents to our survey described the situation:

With the best of intentions HQ ASIFU created an ICP [Intelligence Collection Plan] of 75 pages that was not workable in any way. In their ICP they deconstructed the entire Malian society along the lines of each of the PMESII factors [Political, Military, Economic, Social, Infrastructure and Information] and presented that as their information need, very much in line with the traditional intelligence officer sending a request saying 'give me everything about...'

Soon after the arrival of the second Force Commander, Major-General Michael Lollesgaard of Denmark, in May 2015, the intelligence process became more focused. The priority information requirements (PIR) were updated and the underlying questions were better structured. Despite this, the intelligence units found it often very challenging to meet the ambitious information requirements. Moreover, while MINUSMA's regular intelligence capacities (i.e., at the battalions,

¹⁷ To ensure internal validity, four officers and one civilian analyst from The Netherlands and two civilians from Canada who were all closely involved in the mission reviewed draft versions of the paper. The draft versions were met with responses of recognition, as well as reactions indicating that important issues had been revealed.

the sector headquarters and the force headquarters) were tasked to provide current and security-related intelligence, in practice they were largely incapable of doing so, according to a large majority of the respondents. While the units accumulated a wealth of knowledge, the intelligence branches lacked experienced officers, had almost no analysis capacity and did not have adequate technical equipment such as computers. Without sufficient storage and archiving means, each new rotation (typically every 6–8 months) had to start its information collection almost from scratch.

As a result MINUSMA's Force Commander and his sector commanders did not receive proper current intelligence, which was particularly needed on safety and security issues such as the threats along MINUSMA's main supply routes and the presence of armed groups. The fact that from 2013 to 2015 more than 50 peacekeepers had died in Mali and 200 were injured only underlined the call for such intelligence.¹⁸ The lack of current intelligence also affected ASIFU; as a result, ASIFU was pushed to fill this gap, although its mandated task was to provide PMESII-wide intelligence for the mid- and long-term. It remained a challenge to collect and process the required information, despite the fact that the mission had the most elaborate intelligence structure and information-gathering means of any UN mission to date.

9.3.2 *Collection*

To collect information MINUSMA had a great variety of sensors at its disposal. These sensors varied from the typical military battalions to innovative newcomers such as ASIFU and SOLTG. Many African nations contributed troops to MINUSMA, including battalions from Burkina Faso, Chad, Guinea, Niger, Senegal and Togo. These units had great potential to collect relevant information, mainly due to the cultural similarities they had with the Malian population. Language skills were an important part of this, though the extent to which African soldiers mastered French or any of the local languages differed. Furthermore, most of the MINUSMA battalions provided poorly detailed information to their superiors in the Sector Headquarters. This was because these battalions mainly focused on their own convoys and force protection, and executed few patrols or operations. Other reasons that contributed to this were: the illiteracy amongst many African soldiers; their unfamiliarity with Western-style intelligence gathering; and their practice of reporting through their national chains of command rather than sharing information with UN, Malian or international actors. ASIFU put much effort into improving the

¹⁸ MINUSMA fatality statistics: 6 (2013), 39 (2014); 29 (2015), with most fatalities from malicious acts. Statistics available at <http://www.un.org/en/peacekeeping/resources/statistics/fatalities.shtml> Accessed 8 February 2017; cf. BBC 2015.

information flow coming from some battalions by providing training and handing them tools, such as village assessment formats. These initiatives had mixed results as one of the ASIFU members recalls:

We have provided many units with [intelligence] training. Together with the French G2 of SHQ East in Gao we went to Nigerbat [the battalion from Niger], and provided the entire intelligence section as well as the platoon commanders with a basic intelligence training. Doing this we hoped that Nigerbat started to report since they didn't do that at all. Unfortunately, this training did not help either. We also provided training to the Bangladesh Riverine Unit. They do report and asked us for [intelligence] formats when they navigate the rivers. We gave these to them and this improved the quality of the incoming information.

The difficulty of getting national peacekeeping troops to contribute to the overall intelligence picture is a long-standing problem in UN missions.¹⁹ It is also one of the main reasons that new and innovative units were brought into MINUSMA. ASIFU was the prime exponent of this development. ASIFU was designed from a Western intelligence perspective. Its headquarters was based in the capital Bamako, but most of its sensors were located within the Dutch and Swedish ISR units. In general, the sensors of the Dutch ISR Company, located in Sector East, focused on PMESII-wide intelligence for the mid- and long-term. The ISR Company put much effort into deriving information from human sources. To do this the ISR Company possessed human intelligence teams, civil-military interaction teams (which was more open with the local population) and mission review and advisory teams (more discrete), as well as liaison personnel. But these were entirely manned by Europeans. Due to their limited capacity and freedom of movement these 'sensors' mainly operated in and around Gao city whereas the entire area of operation was far larger, approximately 170,000 km², corresponding roughly with four times the size of Switzerland. However, as Gao city was the central regional hub it attracted many visitors, which enabled the sensors to also collect information from other regions.

The great cultural differences between the European soldiers of the ISR Company and the Malian actors further complicated the gathering of intelligence. Many soldiers were not fully aware of the complexity of the conflict, the history of Mali and the ethnic sensitivities.²⁰ This hampered them in unravelling the dynamics of the environment and addressing the information requirements they were tasked with. Also, language management greatly influenced the collection of information. There was a lack of interpreters that could speak the many local languages such as Bambara and Tamasheq, and only a few soldiers of the ISR Company had an adequate command of French.

In addition to human intelligence, the ISR Company collected much imagery intelligence. Satellite imagery provided a basis but ASIFU found the available

¹⁹ See e.g. Cammaert 2003.

²⁰ One of MINUSMA's former field officers commented: "Most of the challenges faced by MINUSMA in the regions were, indeed, mostly linked to local community issues (e.g., economic and political rivalries within and between communities and individuals) and not directly to the peace process. Hence formal institutional frameworks, by themselves, only gave a partial understanding, which impacted MINUSMA activities." Email of 28 August 2016.

imagery too low in resolution so it petitioned for higher resolution imagery.²¹ On the ground, imagery was gained by a force protection unit that patrolled with small cameras on their cars and helmets. In the air, imagery came from rail-launched ScanEagle UAVs that had a range of approximately 90 kilometres (limited by line-of-sight communications) and the hand-launched Raven which had a range of 10 km at most. The heat and dust of Mali posed problems for flying and image quality. In addition, the UAV systems suffered from the bureaucratic regulations that the UN enforced.²² According to these regulations the Dutch Ministry of Defence was reimbursed for deploying the UAVs only after they had been thoroughly checked and approved by the United Nations. The organization had very little experience with UAVs and checked them as if they were standard flying platforms. Questions that were thus asked included: does the pilot of the UAV fulfil his training requirements? Or, does the rear wheel of the UAV function well? Although the UAVs did not have an on-board pilot or a rear wheel, it took the Dutch contingent almost half-a-year to get the UAVs approved and operational. When the UAVs became operational the system was able to collect imagery intelligence that supported many of the units.

In Sector West, in contrast to the Dutch ISR Company, the sensors of the Swedish ISR Task Force were mostly geared towards security-related intelligence for the short term. The Task Force's most important sensors were a reconnaissance platoon, a small UAV squad, an electronic warfare section as well as a 'Weapons Intelligence and Improvised Explosive Device (IED) Disposal Squad,' a term drawn from NATO practice, like ASIFU.

At its headquarters in Bamako, ASIFU only had a few direct sources and sensors to complement the information provided by Dutch and Swedish ISR units. The most prominent was a small Open Source Intelligence (OSINT) section. Rather than relying on classical open sources such as newspapers, radio and television, this section emphasized web-based communities such as Facebook, Twitter, wikis and internet fora.²³ By means of well-structured queries through software programs such as Silobreaker²⁴ the OSINT section was able to obtain a great amount of relevant information. This included live updates on events such as the Bamako hotel attack in November 2015, video and photo material that was posted on social media (Instagram, Facebook, Twitter), but also more general reports that scholars or think tanks had written on certain topics. Based on this information, the OSINT

²¹ ASIFU found that it possessed high-resolution (<1.5 m) satellite imagery for only 8 small locations and that for its imagery covering all of Mali the best resolution was 150 m, hardly enough to do intelligence-led peacekeeping, especially within a city or to guide a helicopter or a UAV to a particular target. Especially for automated change detection and to identify emerging threats, higher resolution imagery integrated into a Geographical Information System (GIS) was deemed to be essential. MINUSMA ASIFU 2014.

²² Van Dalen 2015.

²³ MINUSMA ASIFU PowerPoint presentation, September 24, 2015. Bamako.

²⁴ Silobreaker is a browser-based tool that structures open source information available on the internet.

section was frequently able to get in-depth information on specific issues, locate individuals such as local leaders by analysing the geo-tags of their posts on social media, as well as to get indications of the public opinion on certain matters or events (e.g. through twitter analyses).

In addition to ASIFU, the helicopter detachment and the SOLTG (special forces unit) contributed significantly to the mission's information gathering. The Apache helicopters of The Netherlands are, arguably, the most sophisticated helicopters ever placed in a UN mission. They were equipped with advanced Forward-looking Infra-Red (FLIR) sensors and a Target Acquisition Designation Sight (TADS), with an excellent detection range, both forward and peripheral. The attack helicopters saw their first combat on 20 January 2015 in response to rebels firing close to peacekeepers and civilians while conducting an offensive on the town of Tabankort.²⁵ After firing warning shots and seeing no diminution of rebel fire, the helicopter engaged and successfully destroyed the rocket launcher. Unfortunately, less than 2 months later, an Apache helicopter crashed in an accident owing to a technical cause and resulting in the loss of the two crew members.²⁶

The helicopters were able to cover large distances in short periods of time, which was a crucial capability given Mali's difficult terrain. Helicopter personnel and sensors collected some very important pieces of information (e.g., the positions of armed groups) that the Special Representative of the Secretary-General (SRSG) and the Force Commander could use during the peace negotiations. Executing covert operations, however, proved to be nearly impossible for the helicopter detachment as there were insufficient hiding places and the solid ground (usually thinly covered by sand) meant that the sound of helicopters reverberated tremendously. Moreover, due to the high costs to deploy helicopters, UN Headquarters restricted the monthly hours these helicopters spent on ISR flights.

The SOLTG collected much information through multiday operations.²⁷ During these operations the Special Forces visited several communities at long distances from their base in Gao. This was a task that few other UN units could perform, given the remote locations of some of these communities, far from UN bases and normal patrol routes. The Special Forces held many meetings with a variety of people, including military commanders, police chiefs, political leaders, leaders of 'terrorist' armed groups and local villagers. In addition to these multiday operations some SOLTG soldiers collected open source intelligence (OSINT) by following a number of well-informed journalists, both local and international, on Twitter. A third way the SOLTG collected data was through telephone exchange with locals. A unit commander remarked:

We gave them [the local people] our telephone numbers. And when we were in the [general] neighbourhood and they called us because of banditry or something like that, a French-speaking person in Gao answered the phone. We were then informed and could pass

²⁵ United Nations 2015; Lewis and Farge 2015.

²⁶ New York Times, 17 March 2015.

²⁷ For a detailed analysis see Rietjens and Zomer (forthcoming).

by one day later. By this we established a telephone circle of which we retrieved much information from political and local leaders.

Since both the helicopter detachment and the SOLTG were under direct command of MINUSMA's Force Commander and the battalions were under command of the Sector commanders (see Fig. 9.1), ASIFU did not have the authority to send out data collection taskings to these units. The information flow from the SOLTG and the helicopter detachment to ASIFU was thus not self-evident and heavily relied on informal agreements and relationships (depending on 'who you know'). At times this situation proved to be detrimental to the intelligence structure's effectiveness as decisions on whether and when to share information with ASIFU were made on a case-to-case, ad hoc basis. The mission brought in new Standard Operating Procedures (SOPs) to help with information gathering, sharing and analysis.

There were, however, also positive aspects to the direct command and control that the Force Commander had with both the SOLTG and the helicopter detachment. The speedy communication enabled the Force Commander in several instances to react promptly to the incoming intelligence. The chief of SOLTG's intelligence section illustrated this as follows:

We received information from the field that two parties were at the brink of fighting each other. This had not yet happened since we [the SOLTG] were present in the area. This kind of information will be reported [to the Force Commander] immediately with the following comment: 'we assess that when there are no UN troops in the area to take our positions, heavy fighting will take place... possibly with civilian casualties.'

A final innovation for information collection that should be mentioned is the aerostat. This tethered balloon was deployed for the first time in the history of UN peacekeeping and was sent aloft with a high-resolution camera as the payload. The French company Thales was contracted to assemble the system, including the large balloon above the UN's base in Kidal to observe in a persistent fashion, observing 24/7 unlike UAVs. The primary purpose of the aerostat was to warn of attacks.²⁸ One such attack came at daybreak on 12 February 2016 in a complex attack on the Kidal camp using mortars, rockets and a ground attack. Soldiers from Mali and MINUSMA intervened to neutralize the attackers but not in time to prevent significant casualties: six peacekeepers from Guinea were killed and 30 others were wounded. Furthermore, major damage occurred to the camp²⁹ and the shrapnel from the explosions damaged the aerostat that was flying over 300 m in the air.³⁰ Still the balloon stayed aloft. But this highlighted the vulnerability of aerostats not only to direct fire but also to attacks

²⁸ "With all the new information coming in, one of the main problems was to interpret the data. For instance, 'how do you know if a vehicle heading towards MINUSMA is a vehicle-borne improvised explosive device (VBIED) or a contractor's car?'" Email from former MINUSMA civilian staff member, 28 August 2016.

²⁹ A photograph of the damage is available at <http://www.unmultimedia.org/photo/detail.jsp?id=664/664068>. A video taken the day after shows the aerostat still in the air. MINUSMA 2016.

³⁰ United Nations 2016.

on the ground. The contracted company, Thales, was not able to repair the balloon for many months. Later, the aerostat succumbed to a sand storm. The United Nations realized that the overall expense of the large aerostat (especially to transport helium) meant that smaller balloons would be preferable in the future.

In sum, it is clear that MINUSMA units collected a tremendous amount of information, and had the inherent capability to collect more. Processing all this turned out to be quite challenging.

9.3.3 Processing

MINUSMA contained several different intelligence staff branches that were tasked to process the information collected by the sensors. These staff branches were at the battalion level (S2), the sector headquarters level (G2) and the force headquarters level (U2), as mentioned above. According to many interviewees (both from these branches themselves as well as from outside units) most of these branches had great difficulty adding much value to the incoming information. There were several reasons for this. Most intelligence staff branches had very limited personnel, let alone experienced intelligence personnel. Within the battalions and at the sector headquarters this problem was most prevalent. At MINUSMA's headquarter the U2 branch consisted of approximately 15 persons, but most of them did not have experience in the field of intelligence. Meanwhile, ASIFU HQ had expanded to a total of 70 persons. Most of these were trained European intelligence officers. However, according to MINUSMA's organizational structure, the U2 was supposed to direct the work of ASIFU on behalf of the commander. This resulted in much friction between the intelligence staff of the U2 branch and ASIFU HQ as both units believed themselves to be in charge of MINUSMA's intelligence activities. For ASIFU this was because of its qualitative and quantitative advantage, while the U2 branch believed itself to be in charge because of its position in the hierarchy.

Also, at the lower levels the command and control structure was not functioning properly. The fact that in mid-2015 the G2 section of Sector HQ East did not even know the S2 officers of its own battalions was a clear example illustrating this problem.³¹ Rather than processing the incoming information within western-style intelligence branches, many African troop contributing countries considered intelligence to be a matter for commanding officers only. A respondent of the U2 formulated this as follows:

As soon as a patrol discovers something, they immediately tell their chief. This chief reports it to his commander – even if he is the battalion commander. This commander immediately calls the commander of the sector headquarters. And if you are unlucky the Sector commander reports it to the Force Commander. And when the Force Commander sits in the daily morning briefing and listens to the U2 he might say: 'no way, because I heard this and that.'

³¹ Interview with a captain of the ISR Company by one of the authors.

There was also a major problem with the databases used to store and share information. Like many UN missions, MINUSMA employed the UN's standard database, SAGE (Situational Awareness Geospatial Enterprise), which is based on the Ushahidi software platform for incident tracking and visualization. It was available mostly to headquarters unit and some officials with access, including within the JOC and JMAC, viewed it as cumbersome, inflexible, and insufficient for creative analysis. ASIFU employed a Dutch system, TITAAN,³² and the two databases could not 'talk' to each other, unable to convey information in real time. Also the Dutch database had classification requirements that SAGE could not meet. This meant that data would have to be entered twice, which was unacceptable to the already burdened mission. Also TITAAN required specific computer terminals and systems, which rarely existed in field locations. Most troublesome was that, TITAAN information could not be shared with other mission units but only with persons from NATO countries with the appropriate level of clearance. This meant that sharing could only be done officially after information was declassified or downgraded ('sanitized' in intelligence speak), placing an additional strain on ASIFU and diminishing its utility for various members of the mission leadership.³³ Still, some valuable intelligence could be passed on after appropriate processing.

To help process all the information that it obtained, ASIFU contained analysis fusion cells,³⁴ one at ASIFU HQ and the other at the Dutch ISR Company. Both cells consisted of 12–16 persons and included collators, technicians and different kinds of analysts including military analysts, geospatial analysts and human terrain analysts. These often highly-educated officers composed many different and thorough intelligence reports. Most of these reports were aimed at mid- to long-term.

The most prominent intelligence report that ASIFU made was the so-called the 'Quarterly Outlook.' Based on an extensive scenario analysis every 3 months ASIFU produced this intelligence report to predict the future status of Mali.³⁵ The reports tended to be very comprehensive in nature, including not only information about the armed groups, but also about tribal tensions, smuggling routes and the perception of the Malian population towards MINUSMA. ASIFU made assessments of the likely places of 'greatest potential for violence' and of civil unrest. Furthermore, ASIFU reports included some creative scenario-building, e.g., for the possible outcomes of peace negotiations held in Algiers.

³² When the original system was created in the US, TITAAN stood for "Theatre Independent Tactical Army and Air Force Network" but in The Netherlands version it was renamed "Theatre Independent Tactical Adaptive Armed Forces Network," with the same acronym.

³³ For example, the Under-Secretary-General for Peacekeeping, Hervé Ladsous, obtained agreement in 2014 from Mauritania's President to provide two intelligence officers for the Mali mission but only realized later that they could not be put into ASIFU because the unit held information and equipment that only NATO countries were allowed to access (Ladsous 2016).

³⁴ Within the Dutch ISR Company this cell was coined the All Sources Intelligence Cell (ASIC), while at ASIFU HQ such a cell was named the Analysis Fusion Cell (AFC).

³⁵ ASIFU information brief, PowerPoint presentation, November 2015, Bamako.

However, unlike the expectations, very little sharing took place between the analysts of ASIFU's fusion cells and the many civilian experts that worked within other parts of the MINUSMA intelligence sections. According to many respondents more collaboration could have significantly increased the quality of ASIFU's comprehensive reports. This would be even more true if collaboration was gained with experts in the 'country team,' i.e., the UN agencies and programmes outside MINUSMA. Also, the traditional tension between the peacekeeping mission and UN humanitarian actors remains an obstacle.³⁶ Still, efforts at overcoming these obstacles were made. For instance, in Gao, weekly meetings were eventually initiated between the Dutch military ISR analysts and a number of civilians to gain a broader understanding.

The Swedish Task Force, operating from the Sector West, was also part of ASIFU but it did not have a similar comprehensive focus. As mentioned, this unit emphasized short-term security-related intelligence. To process its information it had a *military source information cell* consisting of a few military analysts. The intelligence reports this cell made therefore focused at the security threats such as the situation along the main supply routes and the disposition and leadership of armed groups. In an attempt to increase the comprehensiveness of their reports, the Swedish Task Force creatively tasked some of its support staff. The legal advisor, for example, made an extensive overview of the rule of law in Sector West, while its pastor composed a report on tribal groups.

As opposed to the Dutch ISR Company, the Swedish Task Force did not share its single-sensor reports with ASIFU HQ. The United Nations considered this as a national caveat and the Dutch commander of ASIFU was simply not able to enforce information reporting upon his Swedish subordinate, the commander of the ISR Task Force. As a result ASIFU HQ only received the processed reports of the Swedish unit and could not collate the raw data in ASIFU-Sector West's database. Tensions arose between the intelligence officers from The Netherlands and Sweden, something even noted by UN officials at UN Headquarters in New York.³⁷ Despite a major bottleneck for single-sensor information within ASIFU, the passage of information from ASIFU, including the Swedish contributions, to the Force Commander was steady.

9.3.4 Dissemination

Since ASIFU was a new concept within the UN, the leadership of ASIFU put great effort in creating awareness about its role and the potential added value. ASIFU produced several types of reports, which were primarily disseminated to the Force

³⁶ For a more general overview of the tension between military and humanitarian actors during peacekeeping operations, see Lucius and Rietjens 2016.

³⁷ UN official in New York in correspondence with one of the authors in 2016.

Commander. These reports were rarely shared downwards and only sometimes shared upwards, with the SRSG. But by doing so, ASIFU tried to position itself as an intelligence unit that produced valuable reports at the strategic level and to improve its integration into MINUSMA's decision-making processes. On several occasions, however, ASIFU's initiatives to disseminate its intelligence products directly to the SRSG led to friction with other units at the MINUSMA's headquarters. Such friction was most obvious with MINUSMA's JMAC that was tasked to deliver analytical reports directly to the SRSG.

To improve this situation and better coordinate all intelligence-related activities MINUSMA installed a Joint Coordination Board in 2015. This board is chaired by the chief of JMAC and includes representatives of JMAC, ASIFU, U2, United Nations Department of Safety and Security (UNDSS), U3 (the Force Commander's operations staff), United Nations Police (UNPOL), JOC and the office of the SRSG. The weekly meetings of the JCB facilitate communication as well as prevent duplication of effort between the different actors. The JCB, however, is a coordinating body only and has no directive powers, which clearly limits its effectiveness.

The Dutch company as well as Swedish ISR units disseminated their analytical products to ASIFU HQ as well as to their respective Sector Headquarters. In particular the Dutch ISR Company also disseminated many of its comprehensive products to civilian UN components within the Sector Headquarters who, over time, developed a strong interest in the company's intelligence products. The weekly civil-military coordination meetings that the ISR company organized and to which it invited several civilian MINUSMA representatives,³⁸ clearly facilitated this and increased the attention paid to the ISR company's activities, products and potential. The Swedish Task Force provided much valuable information on IEDs and weapons that the armed groups used. By making use of their weapons intelligence lab, Swedish forensic experts were able to identify several suspects as well as preventively disarm explosives, which most probably saved lives of MINUSMA personnel and others.³⁹

Apart from disseminating full reports ASIFU also provided answers to specific questions that many outsiders had. The extensive database that ASIFU had developed over time proved to be of great value. As one UNPOL representative argues:

We do not have a decent database. I'm still waiting for an iBase-structure with adequate search functions. As long as we do not have that, I'm very happy that ASIFU is able to structurally record the information. We can then make requests to get information such as names.

All in all, the extent to which 'customers' (intelligence-speak for the receivers of intelligence reports) appreciated the intelligence products of ASIFU and its subunits

³⁸ These included amongst others representatives of JMAC, Stabilization and Reconstruction and Protection of Civilians.

³⁹ This information was retrieved from several interviews with Dutch respondents as well as with Swedish representatives at ASIFU HQ.

varied considerably. Several civilian components of MINUSMA such as Protection of Civilians and Human Rights Division frequently expressed their gratitude and admiration for the tailor-made reports they received.⁴⁰ And as expressed above, also ASIFU's database was widely considered to be of great substantial value.

On the other hand, ASIFU's reporting frequently did not satisfy the intelligence needs of its main client, the Force Commander, or of the sector commanders. These officers emphasized their need for current and security-related intelligence as this affected MINUSMA's force most,⁴¹ while ASIFU's products were often comprehensive in nature and had a longer-term focus. This heavily impacted the extent to which ASIFU's products were taken into account in MINUSMA's decision-making process. A second main reason why the Force Headquarters in Bamako made only limited use of ASIFU's intelligence products was because it simply lacked the means to follow-up ASIFU's comprehensive and mid- to long-term intelligence estimates. Most UN troops had a hard time sustaining and protecting themselves and therefore had only limited possibilities and interest to carry out intelligence-driven operations.

9.4 Challenges as Dichotomies

MINUSMA's intelligence capacity was (and remains) unprecedented within the history of the United Nations. In addition to the regular intelligence organizations (like JMAC and U2), MINUSMA added several innovative units: ASIFU (with two ISR units), the helicopter detachment and the SOLTG. MINUSMA's intelligence capacity made significant contributions to the military as well as the civilian actors within MINUSMA. However, despite the extensive intelligence capacity, the analysis shows that the attempt to gain comprehensive intelligence has not been without its challenges. These can be expressed as three dichotomies. The first is that of the regular intelligence capacities and the innovative newcomers. While the European countries brought in the innovative intelligence capabilities including technologies and tactics, techniques and procedures (TTPs), these were heavily based on NATO procedures and standards, and requiring systems to uphold information security. The systems were linked to classified NATO intelligence systems and meant that peacekeepers from non-NATO countries could not have direct access to them. By contrast, the regular intelligence capacities of the main force were densely populated with African soldiers who had the cultural familiarity and mastered many of the locally spoken languages. Finding ways to better marry the Western and African capabilities could lead to many future improvements.

⁴⁰ Van Dalen 2015.

⁴¹ At the morning briefs of the Force Commander's staff at MINUSMA headquarters, the U2 was tasked with describing the "Opposing Forces Situation" while the U3 would deal with the "Friendly Forces."

The second dichotomy is that of intelligence related to current security threats versus mid- to long-term comprehensive intelligence. The analysis shows that several intelligence units, most notably ASIFU HQ and the Dutch ISR Company, produced wide-ranging reports focusing on the longer term. Meanwhile, however, MINUSMA's military leadership valued current and security-related intelligence most, but that was insufficiently available within the organization. The case showed that when the operational environment became more dangerous the military had a tendency, naturally, to prioritize current and security-related intelligence at the cost of mid- to long-term comprehensive intelligence. This accords to the commonly observed tension in peace operations between an orientation on mission success versus an orientation on force protection. Michael Walzer⁴² refers to this as the 'risk dilemma' in which he poses the critical question: 'how much risk must our soldiers take to reduce the risks they impose on civilians when they respond to those [insurgent and terrorist] attacks?'

The third and last dichotomy is that of the military and civilian actors within MINUSMA's intelligence process (counting police as civilians). The contributions of both sides were largely stovepiped and lacked sufficient sharing, coordination and integration. This applies to the relationship between ASIFU and JMAC as well as to the interaction between the military intelligence capacities and the civilian analysts that worked within MINUSMA's civilian organizations. The reasons underlying this were organizational (e.g. civil and military organizations operated in different command and control structures), political (e.g. both JMAC, ASIFU and UNDSS were eager to be the first to provide MINUSMA's leadership with relevant information) as well as technical (e.g. technical systems such as TITAAN hampered smooth sharing of information between ASIFU and the civilian organizations).

9.5 Conclusions

The Mali mission has served as an important 'intelligence laboratory' for the United Nations, as the world organization tied out more advanced intelligence concepts (NATO-style) and capabilities than ever employed before in UN missions, in particular ASIFU. With its authorized strength totalling some 450 personnel, ASIFU had two dedicated ISR companies under its command, located in Gao and Timbuktu. It conducted sophisticated analyses of trends and people/social networks, developed scenarios, and managed advanced GIS-platforms. It made predictive estimates, from near-term to 3 years in the future.

At this point, however, the experiment can only be called a mixed success. ASIFU was considered an 'outsider' within the mission, mostly because the information coming from its database (TITAAN) could not be readily shared with the rest of the mission, especially mission leaders and peacekeepers from

⁴² Walzer 2016, pp. 289–293.

non-NATO countries who formed the bulk of MINUSMA's troops.⁴³ Also the United Nations lacked the secure communications system needed to transfer and store TITAAN information. Thus ASIFU took in much more information than it could release. In addition, it used NATO procedures and analysis methods (X-PMESII) that were foreign to the world organization, especially to military personnel from non-NATO countries (including the first force commander). The UN is seeking in 2016/17 to reform MINUSMA's intelligence architecture to allow for better information sharing and less isolated stove-pipes in the mission.

MINUSMA has already made important steps to overcome the disjunction in its disparate intelligence units. As mentioned earlier MINUSMA created a Joint Coordination Board (JCB) in 2015 to better coordinate intelligence-related activities. Another helpful step is the upcoming colocation of ASIFU and the force headquarters, and the ASIFU's placement under the U2. Until mid-2016 ASIFU HQ was located close to Bamako airport, while the force headquarters resided within MINUSMA headquarters in downtown Bamako (Hotel L'Amitié). Transportation took at least 30 min, but (far) more during peak hours, which greatly hampered interaction. With the move of MINUSMA's force headquarters to a newly built super-camp at the airport, this is expected to improve. The downside to this development is that MINUSMA's civilian organizations remain located in downtown Bamako, which will probably increase the challenge of civil-military coordination. To further overcome the institutional stovepipes, the mission will need to move from 'need to know' to one of 'need to share,' given that MINUSMA is a multidimensional peace operation. As a step forward, the TITAAN system has already been replaced by a UN-contracted Mali Mission Secure Network.

There is also room for technological improvement, even though the intelligence sections were the best equipped of any UN mission to date. In future, the image intelligence (IMINT), gathered by the military, UAVs and from commercial satellites, could be disseminated in real-time and funnelled directly to ground troops, with real-time analysis to assist in current operations.

Some persons in MINUSMA felt there was too much information in the mission and that intelligence was over-resourced, an unusual complaint in peacekeeping. But the fault lay more in the interface with the mission, and within ASIFU, where even the components did not share the most important or relevant information seamlessly. As mentioned, the most glaring problem was the inability to share information directly from ASIFU database to non-NATO countries, including Sweden that was the second largest contributor to ASIFU. Sweden, in return, did not share its single-sensor intelligence reports. Similarly inhibitions existed with JMAC and the French counter-terrorism operation Barkhane that operated in large parts of northern Mali and the larger Sahel region. At both interfaces there were, apart from the technical reasons, also political, organizational as well as personal

⁴³ Abilova and Novosseloff 2016.

reasons that determined how much information was being shared.⁴⁴ In the give-and-take of the intelligence world, the more information is given to a partner unit, the more the unit is willing to provide information in return. As in many UN missions, stovepiping became the norm for the mission.

This was also true for the smaller intelligence units, such as the U2 or the battalion intelligence units. They had much more rudimentary data-sharing systems, mostly based on Excel spreadsheets, and Word/pdf files and depended on keyword searches of thousands of files. A more centralized common database, with the coordinated management of information would help considerably (e.g., similar to the UN's Sharepoint or NATO's WISEPAGE).

A lack of intelligence integration can have fatal consequences on the ground, both for the UN peacekeepers and the population they are mandated to protect. For early warning and quick response, e.g., for attacks on mission personnel and civilians, rapid information-sharing is needed. Not only mission personnel, but the local population can benefit from information sharing. In population-centric operations, a 'coalition of the connected' can be formed to provide 'protection through connection.' Also needed is the capacity for deeper analysis, which ASIFU amply demonstrated, including scenario-building and predictive analytics. For both purposes, the use of new software tools could be further explored.⁴⁵ In conclusion, a mission-wide approach is needed within MINUSMA to leverage the capabilities of intelligence in peace operations. But significant progress has been made to demonstrate how intelligence can be used in a peace operation. Despite the flawed incorporation of ASIFU into the mission, the unit showed how deeper analysis can be done in the field. The quest for comprehensive intelligence will continue both in MINUSMA and the United Nations more generally, as the international community seeks ways to field effective peace and stability operations in the challenging environments of war-torn lands.

References

Abilova O, Novosseloff A (2016) Demystifying Intelligence in UN Peace Operations: Toward an Organizational Doctrine. International Peace Institute, New York, <https://www.ipinst.org/2016/07/demystifying-intelligence-in-un-peace-ops> Accessed 3 August 2016.

⁴⁴ The interviews revealed that there was very little communication between Barkhane and the Dutch ISR Company. Most of the communication with Barkhane went through the SOLTG that was co-located with the ISR Company in Gao. Both Barkhane and SOLTG were special operations units and as a result their people trusted each other much more. Still, personal connections depended to a large extent what and how much information was being shared between Barkhane and SOLTG. In general Barkhane was very reserved in sharing information. And if they did, it was mostly for "SOLTG eyes" only. In some cases the SOLTG shared information they had received from Barkhane with their ISR colleagues, but this was incidentally.

⁴⁵ MINUSMA was one of several UN mission selected to trial i2 software. It was being rolled out in early 2016. Other software can be adopted from NATO but the lesson from TITAN is that such software needs to be adequately customized and re-purposed for the United Nations.

- BBC (2015) World's most dangerous peacekeeping mission, 20 November 2015 <http://www.bbc.com/news/world-africa-34812600> Accessed 31 July 2016.
- Cammaert PC (2003) Intelligence in Peacekeeping Operations: Lessons for the Future. In: De Jong B, Platje W, Steele RD (eds) *Peacekeeping Intelligence: Emerging Concepts for the Future*. OSS International Press, Oakton, pp. 11–30.
- Dorn AW (2010) United Nations Peacekeeping Intelligence. In: Johnson LK (ed) *Oxford Handbook of National Security Intelligence*. Oxford University Press, Oxford, pp. 275–295.
- Flynn MT, Pottinger M, Batchelor PD (2010) *Fixing Intel: A Blueprint for Making Intelligence Relevant in Afghanistan*. Center for a New American Security, Washington.
- Flynn MT, Sisco J, Ellis DC (2012) Left of Bang: The Value of Sociocultural Analysis in Today's Environment. *Prism* 3,4:13–21.
- Karlsruh J, Smith AC (2015) Europe's Return to UN Peacekeeping in Africa? Lessons from Mali. *Providing for Peacekeeping*, No. 11. International Peace Institute, New York.
- Kitzen M (2012) Close encounters of the tribal kind: The implementation of cooption as a tool for de-escalation of conflict: the case of the Netherlands in Afghanistan's Uruzgan province. In: *Journal of Strategic Studies* 35(5):713–734.
- Kitzen M, Rietjens SJH, Osinga F (2013) Soft Power, the Hard Way: Adaptation by the Netherlands' Task Force Uruzgan. In: Farrel T, Osinga F, Russell J (eds) *Military adaptation in Afghanistan*. Stanford University Press, Stanford, pp. 159–191.
- Ladsous H (2016) Policy Forum on Demystifying Intelligence in UN Peace Operations. International Peace Institute, 18 July 2016, www.ustream.tv/recorded/89734943, 1:16:00.
- Lewis D, Farge E (2015) Dutch UN attack helicopters strike Mali rebels in north. <http://www.reuters.com/article/us-mali-fighting-un-idUSKBN0KT29520150120> Accessed 27 August 2016.
- Lucius G, Rietjens SJH (2016) *Effective Civil-Military Interaction in Peace Operations – Theory and Practice*. Springer, Berlin.
- MINUSMA (2016) Visite au camp de la MINUSMA à Kidal le lendemain de l'attaque du 12 février 2016 (published 18 February 2016) <https://www.youtube.com/watch?v=vP5Dnm1s5L4>, 6:40 Accessed 8 February 2017.
- MINUSMA ASIFU (2014) Why is satellite imagery important for MINUSMA? Special Report, 2 September 2014.
- New York Times (2015) Mali: 2 Peacekeepers Die in Crash. 17 March 2015. http://www.nytimes.com/2015/03/18/world/africa/mali-2-peacekeepers-die-in-crash.html?_r=0 Accessed 8 February 2017.
- Norheim-Martinsen PM, Ravndal JA (2011) Towards Intelligence-Driven Peace Operations? The Evolution of UN and EU Intelligence Structures. *International Peacekeeping* 18(4):454–467.
- Perugini N (2008) Anthropologists at War: Ethnographic Intelligence and Counter-Insurgency in Iraq and Afghanistan. In: *International Political Anthropology* 1(2):213–227.
- Ramjoué M (2011) Improving UN Intelligence through Civil–Military Collaboration: Lessons from the Joint Mission Analysis Centres. *International Peacekeeping* 18(4):468–484.
- Rietjens SJH, Zomer J (forthcoming) In search for intelligence: The Dutch Special Forces in Mali. In: Glicker Turnley J, Michael K, Ben-Ari E (eds) *Special Operations Forces (SOF) around the World: Perspectives from the Social Sciences*. Routledge, London.
- Spencer E, Balasevicius T (2009) Crucible of success: cultural intelligence and the modern battlespace. *Canadian Military Journal* 9(3):40–48.
- United Nations (2015a) MINUSMA Facts and Figures. <http://www.un.org/en/peacekeeping/missions/minusma/facts.shtml> Accessed 15 April 2015.
- United Nations (2015b) Report of the UN Secretary-General on the Situation in Mali. UN Doc. S/2015/219, 27 March 2015.
- United Nations (2016) Security Council Press Statement on Mali 12 February 2016, UN Doc. SC/12240-AFR/3322-PKO/561 <http://www.un.org/press/en/2016/sc12240.doc.htm> Accessed 1 August 2016.

- United Nations, Department of Peacekeeping Operations (2006) DPKO Policy Directive on Joint Operations Centres and Joint Mission Analysis Centres, Ref. POL/2006/3000/04, 1 July 2006]. United Nations, New York.
- UNmultimedia.org (2016) Head of MINUSMA Visits Kidal Following Fatal Attack <http://www.unmultimedia.org/photo/detail.jsp?id=664/664068>. <http://www.un.org/en/peacekeeping/resources/statistics/fatalities.shtml> Accessed 8 February 2017.
- Van Dalen JA (2015) ASIFU: Baanbrekend inlichtingenexperiment in Mali. [ASIFU: A pioneering intelligence experiment in Mali]. *Militaire Spectator* 184 (7/8):306–320.
- Walzer M (2016) The Risk Dilemma. In: *Philosophia*, 44(2):289–293.
- World Health Organization (2015) ‘Ebola Situations Report,’ 21 January 2015 http://apps.who.int/iris/bitstream/10665/149314/1/roadmapsitrepre_21Jan2015_eng.pdf?ua=1. Accessed 1 July 2016.

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