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PROVIDING TRANSPORT CAPACITY FOR PEACE OPERATIONS IN AFRICA

ABSTRACT

The article is aimed at question how nations can better support the United Nations missions in Africa with focus on their transport operations, including military support and commercial transport. The intention is to fill a gap in literature on the most needed specialist enablers – military transport.

Keywords:

United Nations; Africa; transport; peace operations

INTRODUCTION

The United Nations (UN) is an intergovernmental organisation promoting international cooperation. There are 193 member countries in the UN. Its core mission is to maintain international peace and security through collective, and peaceful efforts through peacekeeping operations. The UN works for peace in several regions of the world, with 70% of its resources and operations being executed in Africa.

The UN has established 71 operations in various regions of the world, of which 57 are already completed. There are currently 13 peacekeeping operations under way[106]. They serve about 90 000 uniformed personnel (army and police), recruited from more than 120 Member States. Military and police troops are supported by around 13 000 civilian staff with political, administrative, and logistics functions.

[106] UN Peacekeeping, https://peacekeeping.un.org/en, accessed 12.08.2020.

The legal basis for each operation is a UN Security Council Resolution which defines the mission mandate, and the status of the military and police personnel of the mission. Transport operations in UN peacekeeping missions on the African continent, which face major challenges, are the subject of analysis in the paper. This is because of poor transport infrastructure, poor safety and security, terrain and climate limitations, limited availability of transport assets, poor enforcement of regulations, high cost, slow bureaucracy, corruption, and other factors. However, without planned and effectively executed transport operations there is no peace missions in Africa.

The paper does not discuss transport infrastructure and its development, or rehabilitation nor transport management in Africa. It focuses on one transport aspect of UN Peace Operations. It analyses, hardly touched issue in the literature, the use of military transport units, discusses most required composition of such units and encourages countries to volunteer such capabilities to UN Peace Operations in Africa. Transport enables humanitarian operations and military transport units can make this process efficient and cost effective.

Therefore, the question should be asked whether there is a need for military transport units in UN peace missions? What kind of transport is used in operations? What are main transport challenges in Africa? What are UN's processes, and how are organized and prepared transport operations? What is the composition of transport unit? What are Troops Contributing Countries (TCCs) benefits from contributing their military transport units? Can commercial transport companies take part in these operations?

The paper consists of five sections. The first section discusses transport in Peacekeeping Operations, including different types of strategic and tactical transport. The next one reviews organisation of transport operations, strategic deployment and transport in the area of operation. In the third section the main transport challenges in peacekeeping operations are presented. The following one analyses contingent's preparations for transport operations. Next, the transport sub-units with their exemplary personal and technical composition are investigated. Finally, benefits for the Armed Forces and their countries from participation with transport units in UN Peacekeeping Operations along with desired composition of units are presented. It is important to note that transport is one of main sectors of the UN procurement. Hence, also participation of commercial companies in UN operations additionally to serving international peace and security can be profitable.

In the research process qualitative research methods were used, including in the form of analyses, synthesis, abstracting, comparison, generalization and implication, as well as conclusions. Review, analysis, and conclusions were based on a wealth of empirical materials: mission data, documents and reports, and practical work experience, interviews with the UN and national experts, and practitioners.

TRANSPORT IN PEACE OPERATIONS

Analysis of the composition of the current UN operations shows that the largest missions are in Africa, in Mali (MINUSMA), Sudan, South Sudanc(UNMISS), the Democratic Republic of Congo (MONUSCO), and the Central African Republic (MINUSCA). To these missions must be added the large African Union Mission in Somalia with a force of around 30 000 soldiers and police officers, which logistics is supported by the UN[107].

These personnel are usually deployed in areas where the transport infrastructure is poorly developed, or in extreme cases, practically non-existent, as in Darfur, in the western part of Sudan. These personnel must not only be transported with their equipment to the area of operation, but also receive a regular supply of fuel, food, spare parts, and everything else necessary for their lives and missions.

Transport in UN peacekeeping missions is a key element of the operation. As in military operations, in UN operations, we distinguish strategic transport to/from the operational area and tactical transport within the mission area.

Strategic transport

The UN Department of Peacekeeping Operations defines strategic transport as the transport of personnel and equipment between a permanent location in the sending country and an operational region[108]. It is a large deployment operation that moves military, or police sub-units over several thousand kilometres using all modes of transport. Most often, the transport of personnel and key equipment (communications, ammunition, armaments) are carried out by air, and the main part of equipment and supplies is transported by land and sea. The decision on which equipment will be transported by air is made each time when the final list of equipment is approved[109]. It depends primarily on the political situation, and the accessibility of operational area by sea and land.

Sub-units must be transported from the place of permanent deployment to the air, and/or seaport of embarkation, then to the ports of disembarkation in the mission area to be moved to their final destinations.

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[107] United Nations Support Office in Somalia, https://unsos.unmissions.org/about, accessed 15.08.2020.

[108] United Nations Department of Peacekeeping Operations Department of Field Support, *Movement Control Manual*, Ref. 2014.21, New York, 2016, p. 13.

[109] C. Nilsson, C. H. Wiklund, Looking to Contribute. *A Guide to the UN Force Generation System for Prospective Troop Contributors*, Swedish Defence Research Agency, FOI-R--3893—SE, ISSN1650-1942, Stockholm, 2014, p. 41.

The entire transport operation of infantry battalion (800 soldiers with equipment) usually takes between one and three months, and depends primarily on the time needed to move the equipment from the seaport of disembarkation to the operational area. In the case of transport to a region located remotely from seaports with poor transport infrastructure, this can take even more than three months.

Strategic Sea lift

Due to the weight and volume of equipment, it is mostly transported by sea. Usually 90% of cargo is transported by sea. An example of an inventory of infantry battalion equipment is specified in Table 1.

Table 1. Example of a list of infantry battalion equipment from the mission in Democratic Republic of Congo (MONUSCO)

Loading units	**Quantity in pieces**	**Loading line length in meters**
Containers 20'	89	538
Vehicles	130	785
Trailers	19	93
Non-containerised equipment	8	28
Total	**246**	**1 444**
	Weight in kg	**Storage area in m^2**
Containers 20'	579 598	1 217
Vehicles	888 771	1 865
Trailers	104 556	207
Non-containerised equipment	15 912	84
Total	**1 588 837**	**3 468**
	Value in USD	**Volume in m^3**
Containers 20'	12 387 727	3 153,101
Vehicles	18 659 670	5 090,128

Trailers	1 102 356	507,111
Non-containerised equipment	382 684	62,372
Total	**32 532 437**	**8 812,712**

source: own study

Transporting equipment as part of the cargo on regular container ships, and/or Ro-Ro vessels is an option. However, for the transport of contingent, the UN generally charters a general cargo vessel, preferably equipped with its own cranes and other mechanisms to load and unload cargo. Sailing directly from the port of embarkation to the port of disembarkation is safer than with calling transit ports.

The cost of chartering such a vessel, with a capacity of 3-5 thousand tons, is about 5,000 USD per day. It is about 50% of the price of a container ship, or a Ro-Ro vessel, which are difficult to find on the market. Chartering a general cargo vessel sailing directly avoids any problems with transit port calls. There is a battalion equipment on board, which can be a target in some of the areas where the liner ships call. Normally, there is a security sub-unit on board in the strength of one team. The security team is responsible for protecting the ship and cargo from acts of piracy, but it is not able to prevent the possible arrest of the ship. Arrests may occur for political reasons, in a port, or in the territorial waters of the transit country. For example, on 11.01.2006 in Malabo, Equatorial Guinea, a ship carrying equipment for an infantry battalion from Tanzania (750 soldiers), financed by Belgium, was detained for more than a month[110].

Strategic Air Lift

Air transport is a main way of the deployment of personnel from a contributing country to the mission area. Most often it is several thousand kilometres. The flight takes a few hours. In some situations, for example from Bolivia to Congo, it can take more than 12 hours. Additionally, the time of transfer from the area of permanent dislocation to the airport of embarkation should be added. For this purpose, passenger planes chartered by the UN from airlines are usually used. Sometimes the sending country organises a strategic move. For example, in the UN Interim Security Force for Abyei mission (UNISFA) located on the border between the Republic of South Sudan and the Republic of Sudan,

[110] F. Misser, *Democratic Republic of the Congo: Prospects For Peace And Normality*, Writenet Report commissioned by United Nations High Commissioner for Refugees, Emergency and Security Services, Geneva, 2006, p. 9.

a contingent of Ethiopian troops has been moved on C-130 aircraft of the Armed Forces of Ethiopia.

Typical aircraft used for the air strategic transport of personnel are B-737 and B-767 aircraft of different versions and airbuses A-310, 319, 320, and their modifications. When chartering an aircraft, a baggage allowance per soldier, which can be up to 100 kg, and depends on the planned duration of stay in the mission, plays a significant role. Due to the distance to a destination airport, the total weight of luggage and possible airport restrictions (runway length, airport height, air temperature, etc.), the total number of passenger seats in the aircraft is not used, or the luggage is transported in a separate aircraft.

An essential part of the equipment is always transported by air. These are communications equipment, ammunition, soldiers' personal arms and other key cargo needed in the mission area immediately after the landing of contingent. The market for cargo aircraft for this type of operation is dominated by companies registered in the countries of the former Soviet Union, where the basic aircraft is IL-76. In Africa, South African companies operating mainly L-100 aircraft (civil version C 130) also have a strong position. Sometimes military C-17, or C-130 aircraft of countries sending their contingents to peacekeeping missions are used, but most often air transport is contracted directly by the UN.

Tactical transport

The UN Movement Control Manual defines transport in the mission area as "Tactical Movement"[111]. It shall meet the current needs of the operation for the transfer of personnel, equipment and supplies. This transport is mainly by land, and/or air. Maritime transport is used occasionally only when the conditions of the mission allow, for example in Liberia, where the UNMIL has chartered a vessel to supply points on the coast, or in Somalia, where the main logistics base, for security reasons, was initially in Mombasa, Kenya. The UN has chartered a cargo vessel sailing regularly, every two weeks, between Mombasa and Mogadishu.

Land transport in the mission area

Land transport includes road, rail, and inland waterway transport. Truck is the basic means of transport in peacekeeping missions conducted under the flag of the UN. This is due to its flexibility, the possibility to use it even in poor

[111] United Nations Department of Peacekeeping Operations Department of Field Support, *Movement…*, op. cit., p. 13.

technical condition of roads and Bridges, and the possibility of direct delivery from the sender to the destination.

Road transport is contracted from companies specializing in these services, or carried out by the UN, civil, or military means of transport. For each mission, the cost-effectiveness of owning own means of transport, UN-owned civil, or military transport sub-units (transport companies, or battalions) versus outsourcing road transport is compared.

The analysis of the transport operations of the UN Mission in Africa demonstrates that the solution is to have two options: the UN owned, and operated transport (civil and military), and commercial transport as a complementary capability to be used in the event of an exceeding demand for transport, or when there is a requirement to negotiate a free passage through areas controlled by UN-unfriendly groups, or it is necessary to ensure the favour of local officials. In the latter case, transport firms are much more efficient than UN mission officials that are required to comply with UN procurement rules.

An example of the composition of the military transport company for the UNAMID in Darfur is presented in Table 2. The structure and equipment of the UN owned Heavy Transport Unit (HTU) based in Entebbe is shown in Figure 1, and Table 3 respectively.

Table 2. Equipment of the military transport company

No.	Vehicle	Quantity	Requirements
1	Truck for the transport of containers 20''	20	Drive 6x6 or 6x4. Transverse clearance for difficult, sandy terrain. Equipped with a self-loading system (PLS).
2	Trailer for the transport of containers 20''	20	Load capacity 20 tons. Possibility to transport 20' containers. Cross clearance for driving in difficult, sandy terrain.
3	Fifth wheel tractor	7	Drive 6x6 or 6x4. Transverse clearance for driving in difficult, sandy terrain.
4	Semi-trailer for transporting 40' containers	3	Load capacity 40 tons. Possibility to transport containers: one 40'' or two 20''. Cross clearance for driving in difficult, sandy terrain.

5	Low loader semi-trailer	4	Load capacity 60 tons. The possibility of transporting heavy engineering equipment weighing up to 60 tons. Cross clearance for difficult, sandy terrain.
6	Forklift truck, load capacity 15 tonnes	3	Load capacity 15 tonnes. 4x4 drive. Ability to lift an ISO 20' container. Ability to work on an unpaved surface.
7	Forklift truck, load capacity 7 tonnes	3	Load capacity 7 tons. Drive 4x4. Ability to lift an ISO 20' container. Ability to work on an unpaved surface.
8	Car crane.	2	Load capacity 35 tons. Drive 6x6 or 6x4. Cross clearance for difficult, sandy terrain.
9	Load capacity 35 tonnes	2	Possibility of evacuation and towing to the base of heavy vehicles. Cross clearance for driving in difficult, sandy terrain.
10	Heavy duty evacuation and technical rescue vehicle	2	Basic equipment of a standard car repair shop.

source: own study

The structure and equipment of the UN owned Heavy Transport Unit (HTU) based in Entebbe is shown in Figure 1 and Table 3 respectively.

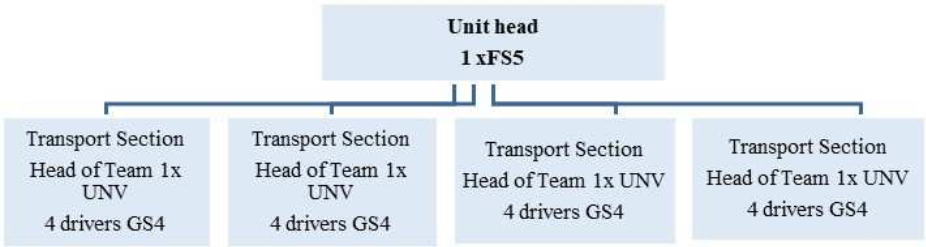

Figure 1. Structure of the Heavy Transport Unit FS5 – Field Service category 5 position, UNV - UN Volunteer, GS4 – General Service category 4 position

source: own study

Table 3: Equipment for the Heavy Transport Unit

No.	Vehicle	Quantity	Requirements
1	Fifth wheel tractor, heavy duty	23	Drive 6x6 or 6x4. Cross clearance for difficult, unpaved terrain.
2	Semi-trailer for transporting 40' containers	23	Load capacity 40 tons. Possibility to transport containers: one 40'' or two 20''. Cross clearance for driving in difficult, unpaved terrain.
- Full-time staff: total 21. - Main task of the branch - transporting supplies to the eastern part of the Democratic Republic of Congo.			

source: own study

Rail and inland waterway transport, in UN missions in Africa, is used occasionally. This is due to the poor technical condition of the transport infrastructure, the lack of enough wagons and locomotives, the destruction of transhipment points. Inland waterway transport is shown at Picture 1.

Picture 1. Transport of French contingent equipment on the Congo River to Kisangani, the MONUC mission, 2005

source: own study

Air transport

In addition to road transport, air transport plays a key role in meeting the operational requirements of UN missions in Africa. For safety reasons,

personnel are mainly transported by air. Equipment and supplies of food, fuel, and construction materials are transported by land wherever possible, but in practice, air cargo transport also plays an important role.

Ammunition, communications equipment, weapons, and any other cargo are moved by air when road transport is not able to meet the time requirements, for example during the rainy season. Often, air transport is the only option due to road congestion, or blockages by armed groups unfriendly to the UN.

These constraints result in a high demand for this mode of transport in peacekeeping operations. Large operations on the African continent, for example in Congo, or Sudan, are supported by a fleet of aircraft and helicopters ranging from large aircraft such as IL-76, B-737, C-130 to small aircraft of type B-1900, or Mi-8. At its peak in 2011/2012, UN peacekeeping operations were supported by a fleet of 289 aircraft and helicopters, comparable to a large airline[112]. Only with such air support it is possible to conduct operations. Some regions were also supplied with fuel by air.

The basic aircraft supporting blue helmets is the Mi-8 helicopter. After the break-up of the Soviet Union, a significant amount of this equipment was transferred from military units to commercial enterprises. Their versatility, uncomplicated operation and, above all, low cost caused the equipment to dominate the fleet of UN helicopters in Africa.

Helicopter airfields that comply with International Civil Aviation Organisation (ICAO) standards are, in principle, at any point where even the smallest civil, or military team is deployed. This is dictated by safety, medical evacuation and logistics considerations.

Due to the long distances, the missions also operate passenger and cargo aircraft. They also charter combi aircraft (cargo + passenger). Large missions (MONUSCO, UNAMID) operate 1 to 4 passenger aircraft with 40-120 passenger seats, several small aircraft (e.g. Beechcraft B-1900 type) useful for medical evacuation and for VIP transport, and several cargo aircraft. IL-76 and C-130 are useful for large cargoes.

ORGANISATION OF TRANSPORT OPERATIONS IN THE UN

The organisation of transport for peacekeeping operations is the responsibility of the Transport Control Section of the UN HQ in New York and the Transport Control Section of each mission. All missions have a high degree of autonomy in terms of logistics organisation, including transport organisation, within the allocated budget. Ensuring an adequate budget is one of the major

[112] A. Novosseloff, *Keeping Peace from Above: Air Assets in UN Peace Operations*, International Peace Institute, New York, 2017, p. 6.

planning tasks of the Heads of Section. The Movement Control Manual is a principal document on which the transport activity in peacekeeping missions is based[113].

Organisation and implementation of the strategic lift

Planning and monitoring of strategic transport are the responsibility of the UN Headquarters Movements Control Section (MCS). This section works closely with many Headquarters units and with:

- Movement Control Section (MOVCON) in missions;
- Strategic Air Operations Centre (SAOC) in Brindisi, Italy, as an organisational element of the UN Global Service Centre (UNGSL);
- Transport and Movement Integrated Coordination Centre (TMICC) in Entebbe as an organisational element of the Regional Service Centre;
- The Permanent Representation to the UN of the country sending the contingent and the relevant national military or police command. Figure 5 shows the process of organising transport in the UN.

[113] United Nations Department of Peacekeeping Operations Department of Field Support, *Movement…*, op. cit., p. 2-95.

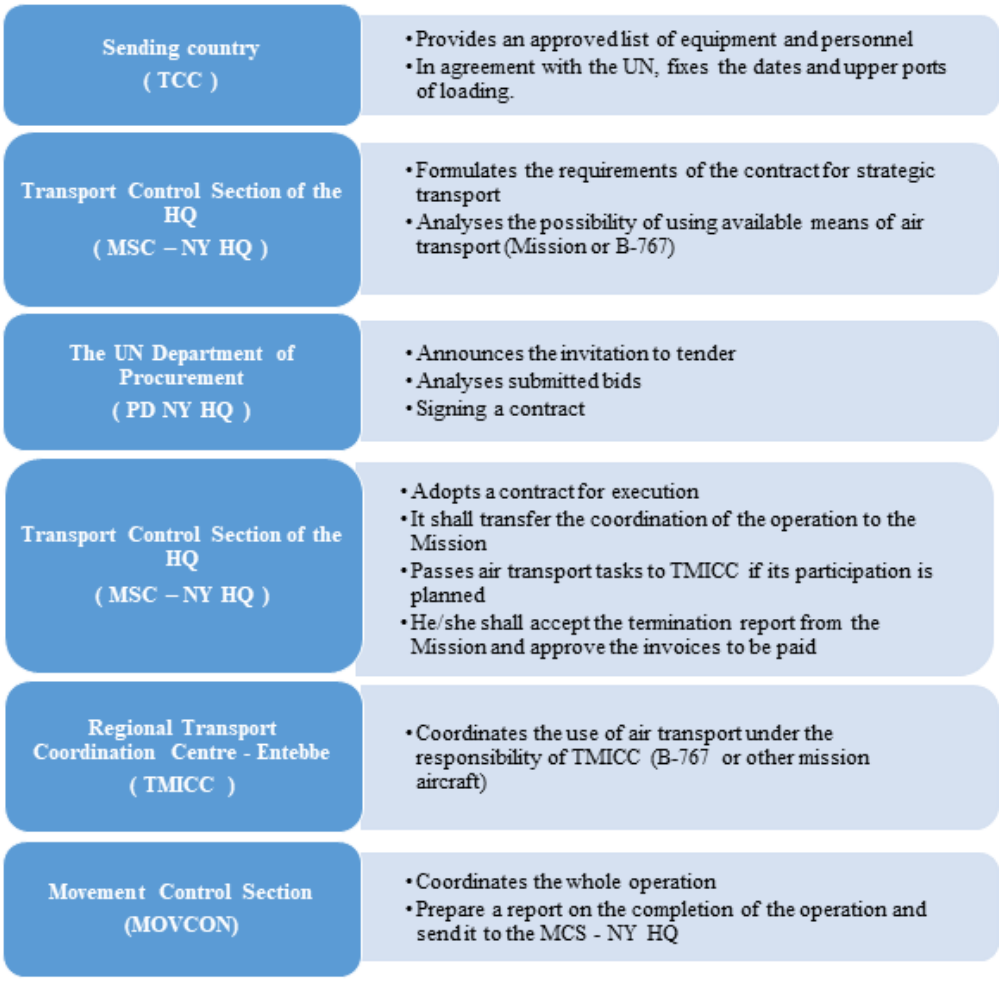

Figure 2. Transport organisation's process

source: own study

The MCS is an organizational element of the Logistics Support Division (LSD) of the Department of Peace Operations (DPO)[114]. The LSD is responsible for the implementation, and monitoring of policies and procedures for all logistical support and includes the Operational Support Service, Transport and Movements Service, and Specialist Support Service. One of its main tasks is to organize strategic transport for both new contingents to be deployed, their

[114] R. Little, *Logistical Support to United Nations Peacekeeping Operations: An Introduction*, Peace Operations Training Institute, Williamsburg, USA, 2019, p. 14.

periodic rotation and for the withdrawal from the mission area. It also administers the budget for these purposes.

The first step in the process is to agree with the Permanent Representative of the TCC to the UN, and the mission on the dates of transfer, the main points of entry and exit, and the list of equipment and personnel.

Then, the MCS formulates the requirements of the transport contract and sends them to the Procurement Division (PD), which launches the tender procedure and finalizes the contract.

As a rule, the UN uses commercial means of transport. When the sending country organizes the transport, the UN signs a Letter of Assistance (LoA) and the UN pays for the service. The condition for signing the LoA is to offer a lower price than the one available on the market from the Procurement Division.

The UN currently has a long-term contract with Ethiopian Airlines for the charter of one B-767 aircraft, which is mainly used for personnel rotation. The plan for the use of this aircraft is coordinated by the Regional Transport Coordination Centre in Entebbe in agreement with the UN HQ[115].

After the signing of the contract, and the initial setting of the deadlines, the operation is transferred to the MOVCON section of the Mission, which then coordinates the operation. This section is responsible for the smooth running of the entire transport operation in cooperation with the transport contractor, the UN HQ and the sending country. Where necessary, it assists the sending countries in the preparation of contingents and coordinates the preparation of documents for customs clearance, immigration, and any other authorisation, depending on the local requirements of the country in which the operation is conducted. The organization and tasks of the MOVCON section are discussed below.

Movement Control Section (MOVCON)

The MOVCON is responsible for the organization of transport in the operational area of the Mission, as well as coordinates the strategic transport. Section personnel is composed of civilian and uniformed personnel delegated to work in the section by the Mission Force Commander (FC). Generally, the MOVCON has no means of transport. Vehicles and aircraft are under the management of two section respectively: The Transport Section and the Aviation Section act as the dispatcher of equipment owned, or leased by the UN. The military transport troops of the contingents receive the tasks of the MOVCON through the FC. An example of the organisation of the MOVCON is shown in the Figure 3.

[115] UN Fleet Details and History, https://www.planespotters.net/airline/United-Nations, accessed 25.08.2020, UN Regional Service Centre Entebbe, https://rsce.unmissions.org/logistics, accessed 25.08.2020.

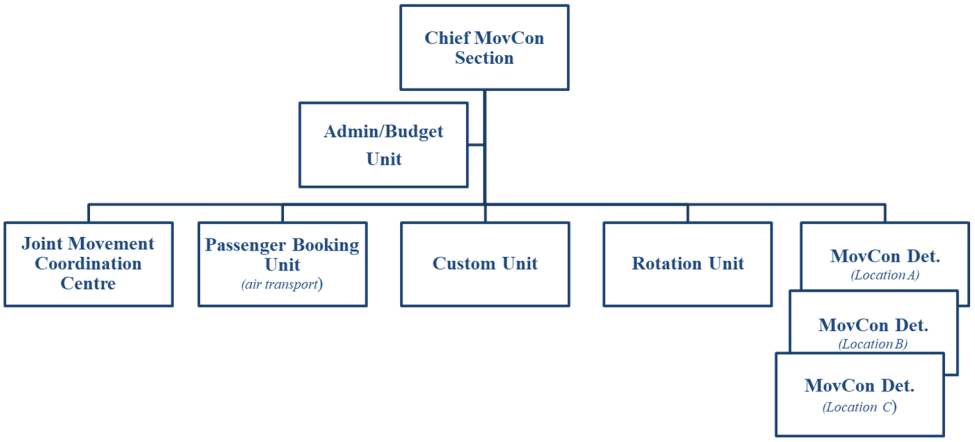

Figure 3. Example of the structure of the MOVCON section

source: own study

The structures of the Section may vary depending on the operational requirements of given Missions, but their primary task – to ensure the continuity of transport of equipment and personel – is unchanged. Demand for transport in some missions, such as the UNAMID, MONUSCO, UNMISS is high. Usually, in the area of UN operations there is no local supplies, and everything must be brought from outside. In addition, commercial passenger transport is practically non-existent.

In large missions the MOVCON organizes even more than 100 flights of planes and helicopters of different types, passenger and cargo transporting up to 500 passengers per day and up to 100 tons of cargo per month. In addition, there is land transport, mainly cargo, during the deployment, or withdrawal of the Mission, up to several hundred containers per month.

The Joint Movement Co-ordination Centre is a key element of the MOVCON. It analyses the need for transport, assigns tasks to UN civil and military transport units and commissions transport to commercial companies. The information flow and the assignment of tasks are shown in the Figure 4.

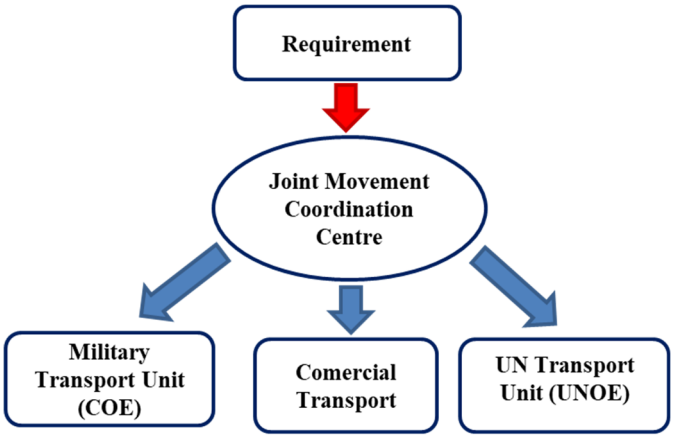

Figure 4. The process of organising transport in a mission

source: own study

The Rotation Unit is responsible for transferring military and police sub-units to and from the Mission area, both at the deployment, rotation, and during the withdrawal of the contingent from the operation in cooperation with the military command of the mission and the MSC. The Passenger Booking Office has a similar role to that of a commercial ticket office, but the UN does not charge a fee, but the journey must be linked to the mission's mandate (including holidays). MOVCON units located in the operational area of the Mission perform primarily executive functions in cooperation with the Transport Coordination Centre, the Mission administration, military, and police units located in their area of responsibility.

MAJOR TRANSPORT CHALLENGES IN PEACE OPERATIONS

Conducting operations in Africa is logistically very challenging because of the technical conditions of transport infrastructure, which is posing the major challenge. In Africa, there is poor transport infrastructure, poor safety record, and poor enforcement of regulations[116]. Also, the security of personnel and cargo, tropical climate, corruption and different administrative habits than in Europe are factors that must be taken into account when planning transport in Africa.

[116] K. Gwilliam, et al., *Africa's Transport Infrastructure. Mainstreaming Maintenance and Management*, The World Bank, ISBN: 978-0-8213-8456-5, eISBN: 978-0-8213-8605-7, DOI: 10.1596/978-0-8213-8456-5, Washington D.C., USA, 2011, p. 39-45.

Public administration

In European countries, bureaucracy is usually associated with a well-functioning administrative machine, public offices and agencies. However, in many African countries, especially where the state apparatus is poorly organised, or does not exist, as in Somalia, each mission is confronted with extreme delays in processing their questions by state and local government offices. That is why the UN often entrusts local transport companies with the task of obtaining customs clearance documents and others required by state and local law-enforcement agencies. However, this is not always an effective solution.

Security

Ensuring the safety of the transported cargo is an important and complex task. Peacekeeping operations are carried out in areas where operate various armed groups, guerrillas, government armies, rebels and ordinary bandits. They charge high fees for permission to travel or even confiscate cargo. Although every convoy is protected by the UN and the army, or police of the host country and private companies, it happens that the protection is ineffective. In addition, each mission by delegating police, or military units to protect its convoys significantly reduces the number of sub-units ready for other operational activities in accordance with its mandate. For these reasons, staff are generally transported by air to reduce the risk of crossing dangerous areas.

Transport infrastructure

The car is the primary mean of land transport in Africa, but the condition of roads and bridges is poor. They have been unrenovated for many years, and newly built bridges do not always meet European standards. When planning an operation, we must take into account the fact that there is usually only daytime traffic, and that the average speed of the convoy is low. For example, in Darfur the convoy travels an average of 200 km per day. This is the standard in transport companies. During the rainy season, many roads are impassable. This has also to be taken into account in the planning process.

There are enough airports in Africa. However, apart from the runway, which is sometimes in need of renovation, you can't count on too much. The UN sometimes finances projects to adapt airports to meet basic standards. As a rule of thumb, air operations must comply with the formal requirements of the ICAO, the country of operation and the country where the aircraft is registered.

In addition to formal compliance with international standards, air transport in African peacekeeping operations faces many obstacles, which include:

- limited, or no supply of aviation fuel, high prices. This reduces the capacity of the aircraft, or the need for a stopover to refuel;
- lack of enough airport equipment such as: aircraft stairs; airport power generators; airport pallet and container lifts; airport tractors; and lack of properly trained personnel. This results in a significant increase in the time necessary to service, load and unload aircraft;
- airport apron is usually small, which limits the number of aircraft that can be operated at the same time.
- most air operations in Africa are daytime only, which also limits operational capacity.

PREPARATION OF THE CONTINGENT FOR PARTICIPATION IN PEACEKEEPING OPERATIONS IN THE FIELD OF TRANSPORT

Military units sent far from their logistics bases, must be adequately prepared for transport. The UN recommends that each battalion should have a transport officer who is properly trained and authorised to carry dangerous goods by air and sea, e.g. for air transport certified by the International Air Transport Association (IATA).

The transport officer supervises the preparation for transport to the mission area and coordinates movements with the MOVCON section while performing the tasks in the area. The officer should know the English language, and it is desirable to know the language of the country in which the mission is being carried out.

Maximum load containerization is recommended because it facilitates transhipment, protects against theft and serves as a warehouse. Sometimes the equipment is waiting for weeks for customs clearance and loading on its way[117].

In case of lack of personnel with adequate experience in container packing, it is recommended to outsource tis task to a specialized commercial firm. Transport firms can also assist in the preparation of transport documents as required by international law, and the regulations of the host country.

Prior to the launch of deployment, the UN sends a team of experts for a pre-deployment visit to verify that the contingent is prepared to contribute to the mission, including transport aspects. The team, in addition to verifying the actual situation of the equipment, provides recommendations on the preparation of personnel and transport equipment.

[117] United Nations Department of Peacekeeping Operations Department of Field Support, *Movement…*, op. cit., p. 37-43.

CONCLUSIONS AND IMPLICATIONS – SECURING TRANSPORT FOR UN PEACE OPERATIONS BY THE MILITARY

When generating a new mission, the UN is asking their member states to submit proposals for participation. As a rule, sub-units of ground troops are reported. However, there are difficulties in securing logistics. Sub-units of engineering, medical, or transport troops are rarely notified.

Road transport sub-units – possible composition and rules of operation

The Military Transport Company is one of the most desirable technical sub-units in peacekeeping missions. Of course, its equipment must be adapted to the requirements of the mission.

The Transport Company equipment must meet the technical specifications to be able to operate in desert, and/or rainy road conditions, which are prevalent in Africa. The Company must include competent, experienced supervisory, and technical staff capable of managing and maintaining the operations of the fleet. These staff shall include the fleet Manager/Supervisor, vehicle mechanics, drivers, and operators for the machines and equipment. The fleet manager has the overall responsibility of the operations and maintenance of the fleet. The Company must have a well-equipped workshop, capable to carry out maintenance and breakdown repairs of the different type of vehicles, machines, and equipment in its fleet. The Company must be capable to provide maintenance and repair spare parts, and should at all times maintain a minimum stock of fast moving spares, such as air, fuel, oil, and transmission filters, drive belts, brake disc pads, brake shoes, and other brake components, steering and suspension components, springs and bushings tyres, wheel rims and tubes tubes, batteries, bulbs, and other electrical components. It must be capable to access, or order spare parts within a reasonable period between 5-7 weeks in case a part is not available in their stores in the mission area.

Tables 6, 7, and 8 present an example of the equipment and requirements of a transport company as for the UNAMID in Darfur (Sudan).

Table 6: Composition of Military Transport Company - Vehicles and Equipment Holding

No.	Description	Quantities	Specifications /Remarks
1	Heavy Trucks with flatbed (20')	20	High ground clearance on 6x4 or 6x6 wheels, capable of carrying one 20' sea container on the flat bed up to 20 T. The Truck should be equipped with drop sides

			and 4 twist locks for securing the ISO containers. It should have high ground clearance, and be capable of operating on off road and sandy desert conditions
2	Trailer, Draw Bar type 20’	20	Draw Bar Trailer capable of carrying one 20’ ISO sea container up to 20 T. The trailer should be equipped with drop sides and 4 twist locks for securing the ISO containers. It should have high ground clearance and be capable of operating on off road and sandy desert conditions
3	Heavy Truck Tractor	7	High ground clearance on 6x4 or 6x6 wheels capable of hauling 40 feet Low-bed semi-trailer or 40 feet Flat Bed Semi-trailers for the movement of heavy engineering equipment and one x 40 feet or 2 x 20 feet ISO containers respectively with a combined weight of 60 Tons maximum. The Truck Tractor should be equipped with all necessary tie-down straps and safety ratchet chains and wooden planks, and capable of operating on off road and sandy desert conditions
4	Semi-Trailer 40’	3	40’ Flat Bed Semi-trailers for the movement of 1 x 40 feet or 2 x 20 feet ISO containers with a combined weight of 40 Tons maximum. The Trailer should be equipped with drop sides or on side boards and 8 twist locks for securing 2 x 20 feet or 1x40’ ISO containers. Trailer should be equipped with all necessary tie-down straps and safety ratchet chains and wooden planks. The trailer should have higher ground clearance and capable of operating on off road and sandy desert conditions
5	Low-Bed Semi-Trailer 40 feet	4	40 feet Low-Bed Semi-trailers for the movement of heavy engineering equipment up to 60 Tons capacity. The Trailer should be equipped with all necessary tie-down straps and safety ratchet chains and

			wooden planks. The trailer should have higher ground clearance and capable of operating on off road and sandy desert conditions.
6	Fork-lift	3	15 T capacity, Low Mast, equipped with Forks for lifting ISO Sea Containers. Capable to operate in rough terrain, 4x4
7	Fork- lift	3	7 T capacity equipped with forks for the lifting of ISO Sea Containers and capable to operate in rough terrain, 4x4
8	Mobile Truck Crane	2	35 T capacity. Capable to operate in rough terrain 6x4 /6x6 . The crane must be equipped with all necessary steel slings, and safety attachments to lift up to the maximum lift capacity.
9	Heavy Recovery Vehicle	2	Capable to recovery / tow heavy truck back to base.
10	Mobile Workshop for heavy trucks /equipment	2	Equip with essential workshop tools /equipment to carry out breakdown repairs. The trucks should include recovery and safety equipment.

source: own study

Table 7. Composition of Military Transport Company - Technical Staff / Drivers, Operators

No.	Description	Remarks / Competency
1	Heavy Workshop Manager/ Supervisor	Competent in the management and supervision of heavy vehicle fleet, repair and maintenance personnel and workshop.
2	Heavy vehicle drivers	Capable of driving heavy trucks with trailer attachment

3	Heavy vehicle driver / equipment operator	Capable of driving heavy trucks with trailer attachment and operate machines and lifting equipment
4	Heavy Vehicles Mechanics	Capable to carry out repairs and maintenance of heavy vehicles, including electronic, hydraulic and pneumatic systems.

source: own study

Table 8. Composition of Military Transport Company - Workshop Equipment / Tools required at each workshop location

No.	Description
1	Heavy duty air compressor
2	Heavy duty tire changing machine
3	Electric welding machine
4	Gas welding and Cutting Equipment.
5	Drilling machines
6	Grinding/ cutting machine
7	Heavy duty workshop Jacks / stands/ Engine crane/Transmission Jack
8	Complete sets of heavy-duty workshop hand tools
9	Heavy duty battery charger
10	All necessary electronic diagnostic tools and testers as may be required
11	All necessary Pneumatic and hydraulic tools
12	Any other tools that may be required to repair and maintain the vehicles in roadworthy condition including accident damage repair tools and equipment.
The workshop Equipment/ Tools should be enough to fully equip at least two workshops.	

source: own study

Transhipment sub-units – possible composition and operating rules

Transhipment sub-units for operations at the main ports and airports are also a required element in peacekeeping missions, especially when there is a need for rapid opening of supply routes during the period of establishment of a new mission, or during a crisis. For example, the U.S. has deployed a transhipment sub-unit in the Port-au-Prince (Haiti) in the aftermath of the January 2010 earthquake. Thanks to this sub-unit, in the first days after the disaster, a humanitarian aid was able to arrive.

The concept of transhipment unit dedicated for seaports and airports was analysed in the Polish Armed Forces. However, due to the cost of equipment, it was not implemented. However, UN missions need smaller sub-units, the size of a platoon, ready to be deployed immediately into a distant operational area.

An example of the composition and requirements for the MOVCON platoon operating in Darfur (UNAMID) is given in Table 9.

Table 9: MOVCON transhipment platoon

Equipment			
No.	**Vehicle**	**Quantity**	**Requirements**
1	4x4 off-road vehicle	3	Type pickup truck, with open cargo box, possibility to transport up to 5 persons and 500 kg of cargo.
2	Delivery van 2.5 tonnes	3	Load capacity 2.5 tons, built-in cargo box
3	Light truck	2	Load capacity 5 tons,
4	Truck with PLS loading vehicle system	3	Drive 6x6 or 6x4. Possibility of transporting 20' containers. Equipped with a self-loading system (PLS).
5	Forklift truck 5 t	1	Exhaust gas drive. Ability to work on an unpaved surface.
6	Forklift truck 7 t	2	Load capacity 7 tons. Drive 4x4.
7	Forklift truck 15 t	1	Load capacity 15 tons. Drive 4x4. Possibility of lifting the ISO 20'

			container. Ability to work on an unpaved surface.
8	Forklift truck 27 t		Load capacity 27 tons. Drive 4x4. Ability to lift an ISO 20' container. Ability to work on an unpaved surface.
9	Trailer	3	Load capacity 20 tons. Possibility of transporting 20' containers.
10	50 KVA generator	2	
11	100 KVA generator	1	
Personnel: 1x Major; 1x Captain; 2 x Senior Ensign; 5 x Ensign; 26 x NCO (sergeant/caporal). Total 35 persons.			

source: own study

Air transport

Military air, cargo and passenger, transport is used by blue helmets sporadically because Member States are reluctant to make available air transport for a longer period. Poland has some experience in this area having sent transport military aircraft to the Balkans, Central African Republic, and Chad. Demand for air transport is high.

Benefits for the Armed Forces from participation in UN Peacekeeping Operations

Participation in UN Peacekeeping Operations brings economic, training, and political benefits to the country.

The participation of the Armed Forces, both personnel costs, and equipment operation and depreciation, is financed entirely by the UN, unlike NATO operations, or the European Union. Some countries (e.g. Fiji, Sweden) treat sending soldiers to the UN missions as creating additional jobs. In addition, showing equipment that works well in an operation can serve as a marketing tool if it is produced domestically.

The soldiers taking part in the operation perform tasks in field conditions that ca not be replicated on the training grounds. They operate in international environment, cooperate and collaborate with the military of other countries, seeking interoperability, getting know other nations' culture and customs, and

practically learning foreign languages. Participation in such operations is an incentive for military service after a period of life in barracks.

The TCC presence is marked in important regions of the world where media interest is directed. UN Peacekeeping Forces and their role in peacekeeping are publicised in media, in the press, and on television.

The staff taking part in the work of the HQs, or in command of the operation are 'ambassadors' of their country. Often they are recruited for civilian positions of the UN DPO. Some of them are likely to reach high positions and have a significant influence on decisions taken at the level of the UN HQ in New York.

UN procurement market share

The UN procures goods, services, and works to support its activities. It should be noted that the UN contracts most of its goods and services for the implementation of peacekeeping operations. In 2017, the UN procurement market was worth more than 18 billion USD. It is on an upward trend. The main sectors of procurement are transport, fuel, food, engineering services, IT, and telecommunications. The UN procurement market is dominated by companies from such countries as the USA, India, United Arab Emirates, Belgium, France, Great Britain, Switzerland, the Netherlands, Denmark, and Kenya. Procurement policies, procedures and practices are presented in the UN Procurement Manual and in the UN Procurement Practitioner's Handbook.

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