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RESEARCH BRIEF 03/24

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Expeditionary logistics and the Russo-Ukrainian War: 'observations gathered' and their implications for future Southern African military logistic operations

Introduction

The term 'expeditionary logistics' is generally applied to sustainment occurring far enough from a domestic support base to require sustainment over longer distances with increased time intervals, although both of these parameters are imprecisely defined. [1] For example, the recent 2023 Australian Defence Strategic Review has emphasised archipelagic manoeuvre operations to Australia's north and given the distances involved, this clearly requires expeditionary logistics.[2] Analogously (with ocean replaced by land) both geography and distances extending northwards from South Africa to both current and future operational areas also require sustainment through expeditionary logistics.

Ukraine and Southern Africa: parallels

At first glance the Ukrainian and Southern African areas of operation appear quite dissimilar. Obvious differences include not only shorter distances, a different climate and more benign terrain but also different types of typical conflict. The Russo-Ukrainian war is a major armed conflict at a scale much greater than the 'small wars' that the SANDF is accustomed to. However, these two situations are linked across the spectrum of conflict by the threat of high lethality effects, regardless of intensity. In addition, the difficulties encountered by the Russian military in the initial phases of the Ukrainian war have exposed its inability to deliver 'expeditionary logistics'[3], with some observers arguing that logistic deficiencies have had a greater impact on the campaign than strategic deficiencies. 'Expeditionary distances' are

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[1] See: TRADOC, "TRADOC Pamphlet 525-3-1: The US Army in Multi Domain Operations 2028" (2018). See p18.
[2] See: Commonwealth of Australia: 'National Defence, Defence Strategic Review 2023', ISBN: 978-1-925890-66-2, p 23, section 1.3.
[3] See: Ronald Ti, "Russian Military Logistics," *International Centre for Defence and Security* (Tallinn;, 2022), https://icds.ee/en/russias-war-in-ukraine-russian-military-logistics/.

therefore not simply absolute kilometres but represent any distance that is sufficiently long enough to attenuate and degrade a given military logistic system, regardless of absolute kilometres. This brief will show that despite apparent differences, generic logistic observations gathered from the Russo-Ukrainian conflict can be applied to regional military operations undertaken by South Africa. This brief will now proceed to highlight four important elements of expeditionary logistics, the first three of which have been prominent in Ukraine. These are: the effect of uncrewed aerial systems, the elongation of the 'last logistic mile' concept, the strategic importance of medical support, and the presence of commercial logistic providers in the battlespace.

The effects of uncrewed aerial systems

The Ukraine conflict has highlighted two major impacts of widespread employment of uncrewed aerial systems (UAS) in the logistic battlespace. The first impact is in the surveillance aspect of UAS ranging over the battlespace and acting as target acquisition enablers for long-range standoff distance strikes. The second is in the effect of UAS as weaponised strike platforms on logistic facilities in their own right. The comparatively low costs of these systems have led to their widespread use by both state and non-state actors. In a future Southern African battlespace, whether during International or Non-international Armed Conflict, the SANDF can expect to encounter UAS deployed by potential adversaries. The lethality of UAS has recently been increased considerably through the augmentation of weaponised UAS with real-time streaming of flight vision in the form of 'First Person View' UAS (FPV UAS).

The 'last logistic mile' is now hundreds of kilometres long

Where a century ago 'the last logistic mile' was generally reckoned to be around 15 km (a figure which equated to the average range of field artillery in 1914), in 2024 the striking distances of weaponised UAS and distance strike platforms have exposed these previously 'safe' rear area logistic installations to attack far from any notional 'frontline.' The 'last logistic mile' is now effectively hundreds of kilometres long. In the case of operational logistic nodes occurring along a logistic line of communication (LLOC) in future SANDF operations, the implications on force protection requirements are significant. Joint support network arrangements consisting of operating bases, theatre logistic bases, and other aggregations of logistic facilities have been prominent in much of the African operational context. In the evolving threat environment, these logistic arrangements will need re-evaluation, particularly regarding key elements such as dispersal, concealment, electromagnetic signature management, disaggregation, command arrangements and force protection.

Medical support and the 'strategic casualty'

Russian forces in Ukraine have not only been challenged by maintaining forward movement of materiel but also rearwards movement of battle casualties.[4] In future Southern African

[4] Russian military medical treatment facilities and systems remain under-developed compared to equivalent Western systems, to say the least. This reflects the historical Russian lack of interest, resources, and duty of care in the military system towards battle casualties. The Russian military medical system is based on fixed hospital

expeditionary situations, medical stabilisation followed by strategic aeromedical evacuation is not only a critical logistic, personnel support task, but will have major political importance in terms of strategic communication and perception management. This is not the situation of the 'strategic corporal' but rather that of the 'strategic casualty.' In a constrained political environment where political will and perceived domestic support are critical enablers of any military operation, the effectiveness of medical personnel support may be a determinant of operational success in future African military operations, particularly if casualties are anticipated. Strategic communication issues arising from medical support issues may be critical for future South African governments in retaining public support for prospective SANDF military operations.

Contractors in support of operations and commercial supply chains

The final observation concerns contractors and commercial firms supporting expeditionary logistics. Whilst these have not been a feature of either side's operational logistics in Ukraine, operational commercial support has now become a major component of Western expeditionary logistics. This has resulted in widespread use of commercial firms to provide logistic capabilities such as strategic airlift, fuel services, camp real-life support services, and multi-modal transport in major Western militaries. The key force protection issue with commercial firms relates to their 'targetability' in a battlespace where the 'last logistic mile', is now potentially hundreds of kilometres long. The larger question is how an adversary which a non-state actor is and which, by definition, cannot be a signatory to IHL conventions-engaged in a Non-International Armed Conflict can be held accountable, or indeed, will respect these 'rules-based order' norms at all. Critical issues arise from the presence of (now) targetable contractors such as questions of insurance, compensation, and contract pricing effects.[5] Any future SANDF expansion of expeditionary logistic service outsourcing will need to consider risk and force protection issues as well as factor necessary mitigation required into its operational planning.

Concluding reflection

This brief has highlighted four features of logistics from the Russo-Ukrainian war which would have likely application to future Southern African operations involving the SANDF. The specific question of whether SANDF military logistics is in fact currently 'fit for purpose' over expeditionary distances in Africa would be an appropriate discussion following this brief.

Note: *This research brief is linked to the SIGLA seminar to be presented on 14 February 2024.*

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facilities and long lines of evacuation, where resuscitation and damage control surgery are delayed until the casualty manages to survive long enough to receive these services at the destination hospital.

[5] Ronald Ti, "Military and Civilian Integrated Logistics: Caveat Emptor (Let the Buyer Beware)! Considerations for the NATO Article V Battlefield," *War Studies University, Poland* 113, no. 4 (2018): 19–33, https://doi.org/10.5604/01.3001.0013.2801.

Additional Reading:

Ronald Ti, "Russian Military Logistics," *International Centre for Defence and Security* (Tallinn; 2022).

Ronald Ti, "Military and Civilian Integrated Logistics: Caveat Emptor (Let the Buyer Beware)! Considerations for the NATO Article V Battlefield," War Studies University, Poland 113, no. 4 (2018): 19–33.

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