

RESTRICTED

98603475MC  
Maj A.Garcia  
SO2 ETD  
SA Army Engineer Formation

**STAFF PAPER FOR THE CHIEF OF THE ARMY AND THE SOUTH AFRICAN  
ARMY WRITING COMPETITION ON A PROPOSED SOUTH AFRICAN ARMY  
FUTURE DEPLOYMENT STRATEGY CONCEPT SYSTEM: THE CAPSTONE  
CONCEPT AND THE OPERATING CONCEPT**

SA ARMY WRITING COMPETITION 2016

Cell: 0824603622  
Landline: 012 671 6005  
Fax: 012 671 6201  
Email: [antoniogarcia81@yahoo.com](mailto:antoniogarcia81@yahoo.com)

RESTRICTED

**CONTENTS**

	<b><u>Page</u></b>
1. Introduction	1
Background	1
Aim	3
Scope	3
2. Future SA Army Deployment Strategy Concept System	3
3. SA Army Capstone Concept	3
4. SA Army Operating Concept	6
5. Conclusion	10
Summary	10
Conclusions	11
6. Appendices:	
Appendix A: Bibliography	A-1

**STAFF PAPER FOR THE CHIEF OF THE ARMY AND THE SOUTH AFRICAN ARMY WRITING COMPETITION ON A PROPOSED SOUTH AFRICAN ARMY FUTURE DEPLOYMENT STRATEGY CONCEPT SYSTEM: THE CAPSTONE CONCEPT AND THE OPERATING CONCEPT (Words - Body: 4082; Footnotes: 2053; Bibliography: 859)**

Reference	A:	Letter SA ARMY/DASD/R/303/8, The SA Army Writing Competition
	B:	Rules and Regulations for the 2016 SA Army Writing Competition
Appendix	A:	Bibliography

## **INTRODUCTION**

### **BACKGROUND**

1. This paper presents a philosophical and conceptual model to determine the South African (SA) Army's approach to future operations and war. In the pursuit of understanding the SA Army deployment strategy, 'how do we fight', this paper suggests an experimental model comprised of two concepts, an SA Army Capstone Concept (SAACC) and an SA Army Future Operating Concept (SAAFOC).<sup>1</sup> This model is benchmarked with the concepts applied by other international armies in their determination of future operating contexts and conditions. Furthermore, the model considers the security trends present in the current strategic moment.<sup>2</sup>

2. The analysis of future security threats and trends must form the basis for the development of future SA Army capabilities and force preparation. It is within this sphere of future preparation that the paper proposes the creation of an SAACC and operating concept. The creation of concepts and doctrine is thus designed to address the changing character of war in a complex world.<sup>3</sup>

3. The character of war is contrasted to the nature of war which is said to be constant or at least continuous.<sup>4</sup> The character of war however, remains in flux and has experienced many changes over the course of history.<sup>5</sup> The various military histories and studies on the

<sup>1</sup> For the purposes of this paper, the capstone concept refers to the overarching and guiding thought processes of the Army regarding future operations. This concept should be represented in a concept paper or document. The operating concept is subservient to the capstone concept, and addresses the way the army will operate in the future. The operating concept should also take the form of a concept paper. These proposed concepts should be subordinate to the Future Army Strategy and complement and assist to operationalise its objectives.

<sup>2</sup> A strategic moment as defined by M.A. Clarke as a "confluence of different trends that are at once full of possibilities, but also difficult to interpret and liable to rapidly evolve, a time when major choices with long-term consequences cannot be avoided.": UK Army, *Joint Concept Note 2/121 Future Land Operating Concept* (Swindon: Ministry of Defence, 2012), iv.

<sup>3</sup> US Army, *TRADOC Pamphlet 525-3-1 The US Army Operating Concept, Win in a Complex World 2020 - 2040* (Fort Eustis: TRADOC Publications, 2014), iv; SA Army Vision 2020 Team, *SA Army Strategic Profile* (Pretoria: SA Army HQ, 2006), i.

<sup>4</sup> US, *Operating Concept*, 8; Australian Army, *Army's Future Land Operating Concept: Adaptive Campaigning* (Canberra: Australian Army HQ, 2009), iii. For a discussion on the nature of war see, J. Angstrom, 'Introduction: Debating the Nature of Modern War', Chapter in, J. Angstrom and I. Duyvesteyn, *Rethinking the Nature of War* (New York: Frank Cass, 2005), 5.

<sup>5</sup> For information on the changing character of war see, H. Strachan and S. Scheipers (eds), *The Changing Character of War* (Oxford: Oxford University Press, 2011); C. Holmqvist-Jonsäter and C. Coker (eds), *The Character of War in the 21<sup>st</sup> Century* (New York: Routledge,

role of innovation and technology on the conduct of war illuminates the broad changing character of warfare.<sup>6</sup> This paper thus proposes a conceptual system for addressing the changing character of war within the African battlespace. This system should be considered within the current South African threat perspective which includes the possibility of conventional and unconventional operations in symmetric and asymmetric environments.<sup>7</sup> Current national and international thinking about global security trends are similar in that they underline uncertainty and complexity in future operations.<sup>8</sup>

4. The changing character of war and the evolving future security threat forms the basis for the arguments proposed in this paper. The SA Army deployment strategy as a broad theme of landward operational application is directly related to the anticipation of future security threats and the objectives of national strategy. The South African National Defence Force (SANDF) strategy determines its ends as objectives from national security policy and its ways as concepts.<sup>9</sup> Concepts, thus guide the implementation of strategic ends. The conceptual component of fighting power provides the thought processes required for the appropriate decision making and contemplation of combat.<sup>10</sup> The proposed SA Army Future Deployment Strategy Concept System (SAAFDSCS) aims to understand the future deployment strategy and takes into account the importance of operations research which uses scientific methods to better understand military problems as per the methodology derived from the Second World War, while acknowledging its limitations.<sup>11</sup> The development of concepts marked a clear break from the limitations of older operations research which did not consider future changes in the conduct of war. The innovation of concepts for future warfare forms part of conceptual thinking.<sup>12</sup> This paper thus finds its existence by proposing a future SAAFDCS which includes an SAACC and an SAAFOC.

5. The proposed capstone concept considers the capabilities which needs to be developed in consideration of future war.<sup>13</sup> The proposed operating concept is then derived from the capstone concept and addresses how the Army will operate in the future.<sup>14</sup> The

---

2010); J. Vicente, 'Toward a Holistic View of Warfare', *Empresa da Revista Militar*, 2, 3, 2009. For an interesting discussion on the character of war refer to: C.S. Gray, *War Peace and International Relations: An Introduction to Strategic History* (New York: Routledge, 2012), 254. For a broad view on military theories over time see, D. Coetzee and L.W. Eysturid, *Philosophers of War: The Evolution of History's Greatest Military Thinkers Volume 1: The Ancient to Premodern World, 3000 BCE – 1815 CE* (Oxford: Praeger, 2013). For a current perspective on strategic history see, H. Strachan, *Contemporary Strategy in Historical Perspective* (Cambridge: Cambridge University Press, 2013).

<sup>6</sup> The battle tank, manned aircraft, nuclear weapons, aircraft carrier, unmanned aerial vehicles and precision guided munitions changed the dynamics and character of war: T.G. Mahnken, *Technology and the American Way of War* (New York: Columbia University Press, 2008), 222 – 224. Jeremy Black argues for the importance of technology and other societal factors which shapes and changes the character of war, J. Black, *War and Technology* (Indianapolis: Indiana University Press, 2013), 35.

<sup>7</sup> SA Department of Defence, *South African Defence Review 2015* (Pretoria: Government Printing Works, 2015), 2-19. The SANDF takes a mission based approach in terms of the application of military resources. Previous threat paradigms are no longer applicable in the SANDF: SANDF, *SANDF Military Strategy* (Pretoria: SANDF HQ, 2008), ix.

<sup>8</sup> UK Ministry of Defence, *Joint Concept Note 1/14 Defence Joint Operating Concept* (Swindon: Ministry of Defence, 2012), iii; SA, *Defence Review 2015*, v.

<sup>9</sup> SA, *SANDF Strategy*, xi.

<sup>10</sup> SANDF, *Joint Warfare Publication 137: Defence Doctrine* (Pretoria: SANDF, 2009), 4-2.

<sup>11</sup> SA National War College, *Campaign Planning Process* (Pretoria: SANDF, 2010), 1-34. See, C.R. Shrader, *History of Operations Research in the United States Army* (Washington: US Army, 2009).

<sup>12</sup> SANDF, *Defence*, 4-3.

<sup>13</sup> US, *Operating Concept*, ii.

<sup>14</sup> US, *Operating Concept*, 16.

SAAFDSCS will thus illuminate the requirements for future planning, resources and the development of the required forces. The findings of the capstone and operating concepts has to be considered within the overarching viewpoint of the 'Defence Review' and the SA Army Future Strategy (SAAFS). The findings and recommendations of the concepts would then have to be analysed, refined and operationalised after which it could be added into doctrine.

## AIM

6. This paper aims to answer the question, "how do we fight?" within the broad theme of the future SA Army force deployment strategy by suggesting the development of a future SAAFDSCS comprising an SAACC and a SAAFOC.

## SCOPE

7. This paper proposes a SAAFDSCS within the sphere of future force deployment. The paper commences with a discussion on the proposed SAACC followed by a deliberation on the proposed SAAFOC. The paper is concluded with a brief summary and conclusion section.

## FUTURE SA ARMY DEPLOYMENT STRATEGY CONCEPT SYSTEM

### SA ARMY CAPSTONE CONCEPT

8. The SA Army Strategic Profile (SAASP) and SAAFS form a strong foundation for the conceptualisation of future conflict and the broad direction of the Army. At its core the SAASP envisions "a professional and dynamic force".<sup>15</sup> A capstone concept could assist in the operationalisation of the SAAFS by conceptualising future applications and determining the direction for the development of capabilities. In making use of an international example, the United States (US) Army capstone concept speaks to the capabilities which will be required during a future period, taking into account limited resources, hybrid threats and adaptive enemies in a complex operating environment.<sup>16</sup>

9. The capstone concept must compliment the SAAFS and other higher doctrinal guidance.<sup>17</sup> Benchmarking with the US Army, the capstone concept should illuminate "how we think about future conflict in an uncertain and complex environment."<sup>18</sup>

10. The SA Army should consider the creation of a capstone concept to strengthen and support the SAAFS project and provide a frame of reference for future operations.<sup>19</sup> The conceptual framework for an SAACC for landward forces should be based on current and future SA security policy challenges and realities. It should thus be based within the African

---

<sup>15</sup> SA, *Strategic Profile*, 2.

<sup>16</sup> US, *Capstone Concept*, ii.

<sup>17</sup> The SANDF strategy is a capstone document and provides an overarching guide to the SA Army: SA, *SANDF Strategy*, x.

<sup>18</sup> US Army, *US Army Capstone Concept: Draft Version 2.7* (Fort Eustis: TRADOC Publications, 2009), ii.

<sup>19</sup> The SAACC should be founded on a Joint capstone concept; however, this detail falls outside the scope of this paper. The US applies a Joint capstone concept from which the other arms of service determine their capstone concepts. The Joint capstone concept is valid for 8 – 20 years: US Army War College, *How the Army Runs, A Senior Reference Handbook, 2011-2012* (Carlisle: US Army, 2011), 48.

battlespace while considering the dynamics of uncertainty and complexity on the continent.<sup>20</sup> The SAACC would thus correspond with the thinking of the SA Army Landward Defence Capability Board while providing a future oriented framework. In this context the renewal of landward defence capabilities is a strategic priority.<sup>21</sup>

11. The capstone concept is intended to shape the way that army leaders think about future warfare<sup>22</sup> and therefore should consider the factors and capabilities required in future operations. The mission success factors, superior firepower, mobility, protection and sustainment are crucial factors in the development of the SA Army.<sup>23</sup> These mission success factors are fundamentally linked to the SA Army landward capabilities.

12. The capstone concept should amalgamate the mission success factors and the landward capabilities in terms of future conflict. The understanding of future capabilities should be enshrined in doctrine so as to provide a basis for current application. Doctrine allows knowledge on warfare to be structured and provides a common way of thinking about war.<sup>24</sup> The capstone concept should thus be congruent to the development of current SA Army doctrine. The SAASP states that "contemporary doctrine... is awarded prime resources and is futuristically inclined to ensure a proactive instead of a reactive approach... to determine the nature of future warfare in which the SA Army will be involved".<sup>25</sup>

13. The development of doctrine should be accompanied by a consideration of the human and psychological aspect. In this regard the US Army capstone concept underpins operational adaptability through flexibility and the decentralised approach.<sup>26</sup> The 'Defence Review' regards adaptability as a key requirement to adjust to a changing world.<sup>27</sup> The SA Army should thus consider a similar approach in terms of the importance of adaptability. The proposed capstone concept should include adaptability, decentralisation and mission command which is enshrined in SA Army and defence doctrine.<sup>28</sup>

14. The SA Army philosophy provides the broad context for complex operations in the African battlespace.<sup>29</sup> The SANDF strategic concepts guides the SA Army concepts. The proposed SA Army future deployment concepts should be congruent to that of the strategic dimension which declares "rapid reaction operations for interventions, expeditionary operations to project forces for protracted periods, complex war fighting within the human and physical dimensions of the battle space, interoperability of command and control capabilities, and concurrency of operations in multiple theatres and joint, inter-agency, interdepartmental and multinational operations."<sup>30</sup> The current international SA Army deployment focus is on peace support operations within the African battlespace.<sup>31</sup>

<sup>20</sup> The scope of military threats ranges from unconventional to conventional in symmetric and asymmetric environments with the condition of complexity and the possibility of sudden escalation: SA, *Defence Review 2015*, 2-19.

<sup>21</sup> SA, *Defence Review 2015*, xi.

<sup>22</sup> US, *Army Runs*, 49.

<sup>23</sup> SA, *Strategic Profile*, 14.

<sup>24</sup> SANDF, *Defence*, 1-2.

<sup>25</sup> SA, *Strategic Profile*, 12.

<sup>26</sup> US, *Capstone Concept*, ii, iii.

<sup>27</sup> SA, *Defence Review 2015*, 3-13.

<sup>28</sup> SANDF, *Defence*, 4-3, SA, *SANDF Strategy*, 14-1, South African Army College, *Operational Concepts: Staff Officer's Operational Manual, Part VII* (Pretoria: 1 Military Printing Regiment, 1996), 7/6-3.

<sup>29</sup> SA, *Strategic Profile*, 9.

<sup>30</sup> SA, *Defence Review 2015*, 9-10.

<sup>31</sup> See, SANDF, *Joint Warfare Publication 106: Peace Support Operations* (Pretoria: SANDF, 2009); SANDF, *Joint Warfare Publication 139: African Battlespace* (Pretoria: SANDF, 2007).

15. The future operations of SA Peace Support Forces as part of the mission in the Democratic Republic of Congo (DRC) UN Stabilisation Mission in the DRC (MONUSCO) should be considered in the SAACC. MONUSCO is tasked to operate under Chapter VII of the UN Charter.<sup>32</sup> Currently the Force Integration Brigade (FIB) and the SA Army Engineer Squadron is currently deployed in the DRC. The FIB consists of military forces from South Africa, Malawi and Tanzania. The FIB is fundamentally an offensive force.<sup>33</sup> The engineer squadron is under the tactical command of the North Kivu Brigade where the Force Engineer and Force Commander are the functional tasking authority in terms of force engineer resources.<sup>34</sup> The SA Army Engineers are concerned with the building of operational and non-operational infrastructure, the building and maintenance of roads for mobility and minor explosive ordinance disposal and combat engineer tasks.<sup>35</sup> The FIB's role is offensive in nature and their main aim is to defeat (neutralise) rebel/armed groups in the DRC. These armed groups include the Democratic Forces for the Liberation of Rwanda (FDLR); the Allied Democratic Forces (ADF) and the Lord's Resistance Army (LRA).<sup>36</sup> The development of capabilities for future operations of the SA Army engineer squadron and the FIB (with support elements) should be considered in the SAACC.

16. The variety of peace support roles and the multiplicity of actors in the peace mission context underpin the SAASP's focus on complexity and uncertainty.<sup>37</sup> An SAACC would thus direct the doctrine and education, training and development (ETD) of the SA Army towards greater joint, inter-department, inter-organisational and international collaboration with other actors.<sup>38</sup> Furthermore the capstone concept should consider the Army's obligation and capability development requirement in the creation of a South African Development Community (SADC) Standby Force<sup>39</sup>, as part of the Africa Standby Force (ASF) as proposed in the Defence Review<sup>40</sup> and the African Capacity for Immediate Response to Crises

<sup>32</sup> UN Meetings Coverages and Press Releases, <http://www.un.org/press/en/2016/sc12307.doc.htm>, 30 March 2016. The Chapter 7 of the UN Charter, provides for the use of force to restore international peace in the event of a threat or breach to international peace and security: UN Charter Chapter 7, <http://www.un.org/en/sections/un-charter/chapter-vii/>. Accessed 11/09/2016.

<sup>33</sup> UN Security Council Resolution 2098. The UN renewed the MONUSCO mandate and the FIB under Chapter 7 in UN Security Council Resolution 2277: UN Meetings Coverages and Press Releases, <http://www.un.org/press/en/2016/sc12307.doc.htm>, 30 March 2016. Accessed 10/09/2016.

<sup>34</sup> C.A. Dos Santos Cruz, 'Employment of Force Engineer Assets', *Interoffice Memo from MONUSCO Force Commander*, October 2015, 1; C.A. Dos Santos Cruz, 'Policy for Executing Engineer Works in Support of Operations', *Interoffice Memo from Force Commander*, August 2014, 1.

<sup>35</sup> C. Prakash, 'MONUSCO Military Engineer SOP', *Force Commander MONUSCO*, November 2011, 2, 3; C.A. Dos Santos Cruz, 'Amendment to SOP Military Engineering', *MONUSCO Interoffice Memo from Force Commander*, July 2014, 1. The further application of military engineers for road building, repairs and infrastructure development is considered in post conflict reconstruction and development: T. Neethling and Heidi Hudson (eds), *Post-Conflict Reconstruction and Development in Africa: Concepts, Role-Players, Policy and Practice* (Tokyo: UN University Press, 2013), 27.

<sup>36</sup> Mandate of MONUSCO – security council; UN Meetings Coverages and Press Releases, <http://www.un.org/press/en/2016/sc12307.doc.htm>, 30 March 2016.

<sup>37</sup> SA, *Strategic Profile*, 10.

<sup>38</sup> ETD should be geared towards future warfare: SA, *Defence Review 2015*, 11-12; SA, *Strategic Profile*, 13.

Article 4 of the AU Constitutive Act: G. Prins, 'The South African Army in its Global and Local Contexts in the early 21st Century: Mission-Critical Analysis', Chapter in, L. Le Roux, *South African Army Vision 2020 Security Challenges Shaping the Future South African Army* (Pretoria: Institute for Security Studies), 12.

<sup>40</sup> SA, *Defence Review 2015*, 7-4.

(ACIRC).<sup>41</sup> The ACIRC is currently a stopgap due to delays in the development and implementation of the ASF.<sup>42</sup> The challenges in capability development must be aimed to meet future Army needs within the regional and international security environment.

17. The purpose of the Army capstone concept is that it “hones the Army’s understanding of emerging challenges and informs our preparation for the future, ensuring our Army stands ready to meet the demands that lie ahead.”<sup>43</sup> The SA Army’s commitment to the ASF includes a brigade tactical headquarters, a parachute infantry battalion, a motorised infantry battalion, a mortar battery, a composite engineer regiment, a tactical intelligence troop, an integrated signal squadron and a composite maintenance company.<sup>44</sup> The development of the capabilities required in order to execute future missions within the African battlespace requires the direction of a capstone concept.<sup>45</sup> This paper thus proposes the SAACC, ‘**operational adaptability: operations in a complex African battlespace.**’<sup>46</sup>

18. The capstone concept as a ‘way’ of achieving national policy objectives amalgamates with the strategic objective of promoting peace, security and stability in the region and the continent.<sup>47</sup> The proposed SAACC would fundamentally have to be related to an operating concept. The operating concept “describes how future Army forces, as part of joint, inter-organizational, and multinational efforts, operate.”<sup>48</sup> The second part of this paper relates the capstone concept to the operating concept. The proposed model thus interlinks the conceptualisation of a capstone concept to the development of an operating concept.

## SA ARMY OPERATING CONCEPT

19. The operating concept addresses how the future Army will operate.<sup>49</sup> The future character of war is the baseline for the creation of the future operating concept.<sup>50</sup> The proposed SAAFOC is designed to give context and direction to the application of landward forces in the future. The idea of using an operating concept is benchmarked with international armies and their future application in the pursuit of policy objectives.<sup>51</sup> The operating concept should thus be congruent to the SAAFS vision and its perception of future security threats.<sup>52</sup>

<sup>41</sup> Anon, ‘Understanding the African Standby Force, Rapid Deployment and Amani Africa II’, *Institute for Security Studies Media Toolkit*, November 2015, 4.

<sup>42</sup> H.P. Langille, ‘Improving United Nations Capacity for Rapid Deployment’, *International Peace Institute: Providing for Peacekeeping No 8*, October 2014, 19, 20; Anon, ‘Understanding the African Standby Force’, 4.

<sup>43</sup> Association of the US Army, ‘Defence Report: The U.S. Army Capstone Concept: Defining the Army of 2020’, *Institute of Land Warfare*, January 2013, 1.

<sup>44</sup> SA, *Defence Review 2015*, 7-5.

<sup>45</sup> The complexities of such a capstone concept have to include a multitude of operational contingencies such as the complexities of post-conflict reconstruction and development in Africa; counterinsurgency and conventional and other operations.

<sup>46</sup> Higher order SANDF doctrinal guidance in the Joint Warfare Publication (JWP) series attempts to provide a baseline for understanding complex operations in the African battlespace: SANDF, *African Battlespace*, viii. The JWP on Peace Support Operations emphasises the importance of Peace Support Operations. The central tenets of the JWP on Peace Support Operations include the strategic context, principles, tasks and techniques and components: SANDF, *Peace Support*, ix-xi.

<sup>47</sup> SA, *SANDF Strategy*, 12.

<sup>48</sup> US, *Operating Concept*, 7.

<sup>49</sup> US, *Operating Concept*, 16

<sup>50</sup> UK, *Future Land*, 1-7.

<sup>51</sup> UK, *Future Land*; US, *Operating Concept*; Australia, *Army’s Future*; US Operating Concept Summary; US, *Army Runs*, 49.

<sup>52</sup> SA, *Strategic Profile*; Le Roux, *South African Army Vision 2020*; The Future SA Army Strategy project team is working on conceptualising the context of the future SA Army.



20. The 'Defence Review' states that the international security situation is characterised by traditional and non-traditional threats including political, ethnic and regional violence. Furthermore, international terrorism, crime and cyber threats are also of great concern.<sup>53</sup> The increase in complexity in the 21<sup>st</sup> century has brought on new challenges in terms of the unpredictability of threats and conflict.<sup>54</sup> The SANDF and SA Army will face operations in environments of increased human complexity which includes linguistic, ethnic, socio-economic and political dimensions. Within this context the SANDF and SA Army will carry out non-combat and possibly major combat operations.<sup>55</sup>

21. The operating concept provides the philosophical framework to carry out current operations as well as the foundation for future operations.<sup>56</sup> In this context it is of great importance for Army professionals to think about the advent of future conflict. The Army operating concept thus asks big questions about future operations which rests firmly in the relevant operating environment.<sup>57</sup>

22. The proposed SAAFOC is a means to consider the application of future landward forces in the pursuit of political objectives. The operating concept considers the importance of deterrence and the role of the use of force in achieving policy objectives.<sup>58</sup>

23. There are many factors which influence the Army operating concept and every nation state must consider its context and political objectives. The SA Army cannot apply the methods of another country's Army in the development of its own operating concept, but it should rather be based on its national character and policy objectives. The British operating concept considers six fundamental ideas which include, understanding the battlespace, terrain, interdependence and interoperability, initiative, development of soldiers and command.<sup>59</sup> In philosophising about future conflict the Australian Army considers, the operational tenets of success including flexibility and agility, the adaption cycle, the human dimension and operational art.<sup>60</sup> The US Army operating concept considers the core tenets and competencies of future conflict. The core tenets include initiative, simultaneity, depth, adaptability, endurance, lethality, mobility and innovation. The core competencies comprise shaping the security environment, setting the theatre, projecting national power, combined arms manoeuvre, wide area security, cyber space operations and special operations.<sup>61</sup> The SAASP considers "superior firepower, mobility, protection and sustainment capabilities that ensure a high state of readiness and ability to operate for long periods."<sup>62</sup> The operating concept is intended to describe how the various fighting concepts are combined.<sup>63</sup> The SA Army Landward Defence Capability Board could determine the integration of their various capabilities in terms of future application.<sup>64</sup> These aspects should be considered in the proposed SAAFOC within the broader strategic goals of the SANDF.

24. The SANDF envisions the possibility of expeditionary campaigns and the projection and sustainment of forces in distant operating theatres.<sup>65</sup> The operating concept thus

<sup>53</sup> SA, *Defence Review 2015*, iv.

<sup>54</sup> UK, *Defence Joint*, 1-2.

<sup>55</sup> SA, *Defence Review 2015*, v.

<sup>56</sup> Australia, *Army's Future*, i.

<sup>57</sup> US, *Operating Concept*, iii.

<sup>58</sup> UK, *Future Land*, vi; US, *Operating Concept*, i.

<sup>59</sup> UK, *Future Land*, 7, 8.

<sup>60</sup> Australia, *Army's Future*, iv.

<sup>61</sup> US *Complex War*, 20 – 23.

<sup>62</sup> SA, *Strategic Profile*, 16.

<sup>63</sup> US, *Operating Concept*, 31.

<sup>64</sup> Interview with Colonel L. Olivier, SSO SA Army Future Strategy, 8 September 2016.

<sup>65</sup> SA, *Defence Review 2015*, vi.

considers the foundational capabilities required for future conflict without providing a definitive answer in the conduct of future war.<sup>66</sup> The development of these capabilities are hampered by the budget limitations of the SANDF.<sup>67</sup> Pressure to reduce defence spending is not only a South African phenomenon. Defence spending is dependent on the viewpoint of a given nation state with reference to their specific contexts.<sup>68</sup> The South African defence budget is 1.2% of the gross domestic product (GDP) whereas the US defence allocation is 4.9% of the GDP.<sup>69</sup> Despite the confines of national defence spending the SANDF is committed to the achievement of regional security policy objectives.<sup>70</sup>

25. The operating concept should consider the rapid deployment of land forces with minimal time spent in transition from deployment into operations. The area of operations should be foreseen to be at the end of extended lines of communications (LoC) in challenging conditions.<sup>71</sup> The future deployment of SA Army forces is most likely to take place in the African battlespace and under the auspices of the UN, African Union (AU) or another recognised international organisation. The future deployment of such a force should be considered with respect to current trends of the development of the UN's rapid deployment capabilities.<sup>72</sup>

26. The SAAFOC for international deployments such as the FIB would have to consider rapid reaction capabilities and how to ensure the demands of the UN are met. The resources, Contingent Owned Equipment (CoE), which are allocated to a peacekeeping force and reimbursed, are agreed to in the Memorandum of Understanding (MoU) between the Troop Contributing Country (TCC) and the UN.<sup>73</sup> The operating concept should consider the resources and capabilities required to execute the required objectives within the frame work of the mission. For example, the FIB could claim that due to the difficult and varying terrain in the DRC the Brigade would require its own independent air assets for rapid reaction, air lift and close air support. A model for rapid tactical deployments in overcoming difficult and varying terrain can be benchmarked with the US Army during the Vietnam War

<sup>66</sup> US, *Operating Concept*, 24.

<sup>67</sup> SA, *Defence Review 2015*, vii.

<sup>68</sup> US, *Operating Concept*, 20–23; What are the biggest defence budgets in the world, <http://www.telegraph.co.uk/news/uknews/defence/11936179/What-are-the-biggest-defence-budgets-in-the-world.html>, article accessed 17/09/2016; Europe's Paper Militaries NATO Spending Still Shrinking, <http://www.the-american-interest.com/2016/01/29/nato-spending-still-shrinking/>. Article accessed 17/09/2016.

<sup>69</sup> SA, *Defence Review 2015*, vii, 2-21.

<sup>70</sup> SA, *Defence Review 2015*, 0-4.

<sup>71</sup> US, *Operating Concept*, 33.

<sup>72</sup> Langille, 'Rapid Deployment', 4. The AU ASF Framework Document declares that the ASF rapid deployment capability must be able to intervene in cases of genocide or imminent conflict within 14 days: Prins, 'South African Army', Chapter in, Le Roux, *Vision 2020*, 12, 25. The influence of rapid deployment capabilities should also be considered doctrinally within the UN. The current UN capstone doctrine and the subordinate 1000 – 5000 doctrinal series should fundamentally consider the resources required for rapid reaction and rapid deployment. Furthermore, the lower level doctrine relevant to battalions should also be revised as far as rapid reaction is required. The rapid deployment concept received significant attention in the early until mid-1990s. Former UN Secretary General Boutros Boutros-Ghali advocated for peace keeping forces from all member states and rapid deployment. The failure of the UN in Somalia, Rwanda and Bosnia were indications of the limitations of peace keeping: T. Lansford (ed), *The Political Handbook of the World* (Los Angeles: Sage, 2013), 1763. Despite previous failures a UN rapid deployment capability is recognised by many as an effective method of conflict prevention: H.P. Langille, 'Conflict Prevention: Options for Rapid Deployment and UN Standing Forces', Chapter in, T. Wodehouse and O. Ramsbotham (eds), *Peacekeeping and Conflict Resolution* (London: Frank Cass, 2000), 219.

<sup>73</sup> UN DFS, Contingent Owned Equipment, <http://www.un.org/en/peacekeeping/issues/fieldsupp>, Accessed 13/09/2016.

which involved the use of helicopters for airlift, close support and air mobility.<sup>74</sup> The FIB's defeat of the M-23 armed group made extensive use of helicopters for airlift and air strikes and the Rooivalk was employed towards the end of the offensive.<sup>75</sup> The military nature of the M-23, and its roots as a disgruntled faction of the DRC Army, perhaps allowed for a decisive tactical decision. Operations against the FDLR, who have settled and have families in the eastern DRC and, who furthermore have political ambitions remain a challenge.<sup>76</sup> The use of military means to achieve political ends in counterinsurgency operations is multifaceted and in many ways a serious challenge.<sup>77</sup>

27. The operating concept should thus consider the strategic objectives and the tactical realities of current and future operations. The terrain in the DRC restricts the mobility of peace keeping and enforcement forces. Air mobile forces should be considered as part of the SAAFOC (jointly with the SA Air Force) while considering the resource limitations of aircraft in MONUSCO and the UN.<sup>78</sup> The operating concept provides the context of where landward based operations are to be carried out. Terrain thus becomes a fundamental consideration.<sup>79</sup>

28. A practical example of the context of current FIB operations is the lack of military engineer resources directly linked to the brigade. The tactical placement of military engineer companies (MECs) under the South Kivu Brigade (2 MECs), North Kivu Brigade (2 MECs) and Ituri Brigade (two MECs) and the lack of allocated engineer resources under the direct command and control of the FIB has limited their ability to deploy. The FIB has an assault pioneer capability (limited combat engineer) which cannot provide sufficient engineer support for the required operational tasks. These tasks often require heavy machinery. The MECs of other brigades in MONUSCO are thus diverted to cater for the FIB engineer requirements which include base defences and the provision of mobility.<sup>80</sup> The operating concept for future deployments in a rapid capacity should thus consider the terrain<sup>81</sup> and the military means for traversing difficult terrain and overcoming obstacles of physical geography.<sup>82</sup>

<sup>74</sup> C.C.S. Cheng, *Air Mobility: The Development of a Doctrine* (Westport: Praeger, 1994), 186; D.J. Mrozek, *Air Power and the Ground War in Vietnam: Ideas and Action* (Honolulu, University Press of the Pacific, 2002), 76, 77.

<sup>75</sup> S. Hoffstater, South Africa at war in the DRC – The Inside Story, 22 August 2014, <http://www.timeslive.co.za/local/2014/08/22/south-africa-at-war-in-the-drc--the-inside-story>, article accessed 21 September 2016.

<sup>76</sup> Security Council Report, June 2016 Monthly Forecast: Democratic Republic of Congo, <http://www.securitycouncilreport.org/monthly-forecast/2016-06/democratic-republic-of-the-congo-11.php>. Website accessed 21 September 2016.

<sup>77</sup> D. Baker and E. Jordaan (eds), *Contemporary Counterinsurgency: Roots, Practices, Prospects* (Cape Town: University of Cape Town Press, 2010), xi. See, D.J. Kilcullen, *Counterinsurgency* (Oxford: Oxford University Press, 2010); P.B. Rich and I. Duyvesteyn (eds), *Routledge Handbook of Insurgency and Counterinsurgency* (New York: Routledge, 2010).

<sup>78</sup> MONUSCO had 60 military helicopters in 2014: Kevin Smit Presentation, <https://www.vhpa.org/heliloss.pdf>, accessed 13/09/2016. The US military employed 12000 helicopters during the Vietnam War: Heliloss, 1 <https://www.vhpa.org/heliloss.pdf> accessed 13/09/2016.

<sup>79</sup> SANDF, *African Battlespace*, vii.

<sup>80</sup> Dos Santos Cruz, 'Engineer Works', 2. MONUSCO Military Engineer SOP, 1; Dos Santos Cruz, 'SOP Engineering', 1.

<sup>81</sup> Landward operations has, is and will always be fundamentally influenced by the nature of physical terrain, UK, *Future Land*, 2-1.

<sup>82</sup> See, F.A. Galgano and E.J. Palka (eds), *Modern Military Geography*, New York: Routledge, 2011); D.R. Caldwell, J. Ehlen and R.S. Harmon, *Studies in Military Geography and Geology* (Boston: Kluwer, 2004).

29. The element of physical geographical constraints as well as human complexity (ethnicity, language, religion) are fundamental considerations in future warfare. Difficult terrain may include: urban areas and complex terrain, jungle, dense bush, desert, mountains and marshes.<sup>83</sup> These geographical terrain types may become contested battlegrounds within the African battlespace.<sup>84</sup> Therefore a fundamental knowledge of the geographic landscape is required as well as the requirements and capabilities for addressing these obstacles. The operating concept will thus consider, analyse and provide options in terms of the context of future operations.

30. In the human dimension non-state actors present a current and future threat. Cultural knowledge is and will be of great importance and includes knowledge of histories, customs, languages, norms and religious aspects among others.<sup>85</sup> The landscape of future conflict is paved with asymmetry<sup>86</sup> which may include, interventions and the escalation of minor operations into major combat as well as counter-insurgency operations.<sup>87</sup> The operating concept thus has to consider the capabilities required to grapple with human complexity in future operations.

31. The adaption of tactics in complex terrain has favoured dispersion in the view of increased lethality of modern weaponry and fires. The tactical approach of adversaries has thus adapted to individuals and or small groups with increased lethality and unpredictability (suicide bombers and civilian targets in city centres are examples).<sup>88</sup> The asymmetrical edge, dispersion tactics and complex terrain are thus fundamental to the understanding of the future operating environment and should be considered in the development of an SAAFOC.

32. The development of SANDF capabilities is a primary objective of the SANDF strategy.<sup>89</sup> The SAAFOC proposed in this paper is, '**winning in a complex African battlespace.**' The proposed concept is congruent with the SAAFS which according to former Chief of the Army Lieutenant General Solly Shoke, "remains a continuous and cyclical process of revision to ensure that our thinking and activities remain relevant."<sup>90</sup>

## CONCLUSION

### SUMMARY

33. This paper answers the question 'how do we fight?' within the broad theme of the future SA Army force deployment strategy. In doing so, it suggests a future SAAFDCS. The

<sup>83</sup> Complex terrain is defined as, "the environment shaped by physical, human and informational factors that interact in a mutually-reinforcing fashion." Australia, *Army's Future*, ix. Complex terrain may include population centres, subsurface, surface and super-surface aspects in which adversaries operate, US, *Operating Concept*, 12. Adversaries of conventional forces are strengthened by complex terrain whereas conventional land forces seek to avoid complex terrain, UK, *Future Land*, 2-2.

<sup>84</sup> SA, *Defence Review 2015*, 2-19. Sun Tzu proposes the idea of 'difficult' terrain which includes mountain forests and marshes amongst other terrain forms which are fundamentally difficult to traverse, S. Tzu, tr. A.L. Sadler, *The Art of War* (Tokyo: Tuttle, 2009), 69.

<sup>85</sup> SA, *Defence Review 2015*, 2-19; US, *Operating Concept*, 18.

<sup>86</sup> For further information on asymmetry in the African battlespace see, SANDF, *African Battlespace*.

<sup>87</sup> SA, *Defence Review 2015*, 2-19, 2-20.

<sup>88</sup> Australia, *Army's Future*, 19.

<sup>89</sup> SA, *SANDF Strategy*, xii.

<sup>90</sup> S. Shoke, 'Foreword' in D. Baker and E. Jordaan (eds), *Contemporary Counterinsurgency: Roots, Practices, Prospects* (Cape Town: University of Cape Town Press, 2010), ix.

proposed concept system comprises an SAACC and an SAAFOC. These concepts will determine how we will fight in future operations.

34. The proposed future SA Army deployment strategy concept system is discussed and deliberated upon in two sections in the paper. The first section comprises a discussion on the SAACC which is followed by a deliberation on the proposed SAAFOC.

35. The SAACC must correspond and complement the SAAFS. In essence the capstone concept should be our guide for how we consider future conflict within the confines of uncertainty and complexity. The capstone concept will direct the capability requirements which will in turn fulfil the strategic priority of renewing the landward defence capabilities. The development of a capstone concept should thus be intertwined with the Landward Defence Capability Board and its respective teams.

36. This paper proposes the SAACC, '**operational adaptability: operations in a complex African battlespace.**' The proposed SAACC within the future SAAFDCS is linked to the operating concept. The operating concept should describe how a future army will operate.

37. The operating concept addresses how an army will fight with the advent of complex terrain and human complexity in the African battlespace. This paper proposes the SAAFOC proposed in this paper is, '**winning in a complex African battlespace.**'

## CONCLUSIONS

38. This paper finds its existence at the nexus between the continuities in the nature of war and the constant change in the character of war. The changing character of war questions the shape and form of the SA Army as well as the capabilities required for future operations. It is within this vein that the paper considers the required future SAAFDCS for the planning and understanding of future war.

39. The proposed concepts should be limited their forward projection. Due to the continuous change in the operational landscape the concepts must exist in fluidity. The capstone concept and operating concept can be created for current operation with a future view of five to eight years or the corresponding amount of years as is practicable.

40. The solution to the question 'how do we fight?' is thus answered through presenting a philosophical model and not a prescriptive method for future SA Army operations. The proposed SAAFDCS is benchmarked with international armies. Furthermore, the proposed system is conceptual and outlines the process of determining how we will fight in the future, and requires further development into substantive concept papers which exceeds the scope of this paper.

41. The proposed SAAFDCS will determine the capabilities required in conjunction with the Landward Defence Capability Board and the operating concept will help in the understanding of how we will fight in the future. The concept system thus could facilitate the SA Army future vision and assist in the philosophical and practical preparations for future operations.



**(A. GARCIA)**  
**SA ARMY ENGINEER FORMATION SO2 ETD: MAJ**

30 September 2016

AG/AG

**BIBLIOGRAPHY**

1. Australian Army. *Army's Future Land Operating Concept: Adaptive Campaigning*. Canberra: Australian Army HQ.
2. Anon. 2016. *Europe's Paper Militaries: NATO Spending Still Shrinking*. Available from: <http://www.the-american-interest.com/2016/01/29/nato-spending-still-shrinking/>. (Accessed 17 September 2016).
3. Anon. 2016. *UN Charter Chapter VII*. Available from: <http://www.un.org/en/sections/un-charter/chapter-vii/> (Accessed 11 September 2016).
4. Anon. 2016. *UN DFS, Contingent Owned Equipment*. Available from <http://www.un.org/en/peacekeeping/issues/fieldsupp>. (Accessed 13 September 2016).
5. Anon. 2016. *UN Meetings Coverages and Press Releases*. Available from: <http://www.un.org/press/en/2016/sc12307.doc.htm> (Accessed 10 September 2016).
6. Anon. 2015. "Understanding the African Standby Force, Rapid Deployment and Amani Africa II". In: *Institute for Security Studies Media Toolkit*, November 2015.
7. Anon. 2016. *What are the biggest defence budgets in the world*. Available from: <http://www.telegraph.co.uk/news/uknews/defence/11936179/What-are-the-biggest-defence-budgets-in-the-world.html>, (Accessed 17 September 2016).
8. Angstrom, J and Duyvesteyn, I (eds). 2005. *Rethinking the Nature of War*. New York: Frank Cass.
9. Anon. 2016. *Security Council Report, June 2016 Monthly Forecast: Democratic Republic of Congo*. Available from: [http://www.securitycouncilreport.org/monthly-forecast/2016-06/democratic\\_republic\\_of\\_the\\_congo\\_11.php](http://www.securitycouncilreport.org/monthly-forecast/2016-06/democratic_republic_of_the_congo_11.php). (Accessed 21 September 2016).
10. Baker, D and Jordaan, E (eds). 2010. *Contemporary Counterinsurgency: Roots, Practices, Prospects*. Cape Town: University of Cape Town Press.
11. Black, J. 2013. *War and Technology*. Indianapolis: Indiana University Press.
12. Cheng, C.C.S. 1994. *Air Mobility: The Development of a Doctrine*. Westport: Praeger.
13. Caldwell, D.R, Ehlen, J and Harmon, R.S. 2004. *Studies in Military Geography and Geology*. Boston: Kluwer.
14. Coetzee, D and Eysturlid, L.W. 2013 *Philosophers of War: The Evolution of History's Greatest Military Thinkers Volume 1: The Ancient to Premodern World, 3000 BCE – 1815 CE*. Oxford: Praeger.
15. Dos Santos Cruz, C.A. 2014. *Amendment to SOP Military Engineering, MONUSCO Interoffice Memo from Force Commander*, July 2014.



16. Dos Santos Cruz, C.A. 2015. *Employment of Force Engineer Assets, Interoffice Memo from MONUSCO Force Commander*, October 2015.
17. Dos Santos Cruz, C.A. 2014. *Policy for Executing Engineer Works in Support of Operations*, Interoffice Memo from Force Commander, August 2014.
18. Galgano, F.A and Palka, E.J (eds). 2011. *Modern Military Geography*. New York: Routledge.
19. Gray, C.S. 2012. *War Peace and International Relations: An Introduction to Strategic History*. New York: Routledge.
20. Helicopter losses. 2016. *Heliloss*. Available from: <https://www.vhpa.org/heliloss.pdf> (Accessed 13 September 2016)
21. Hoffstater, S. 2014. *South Africa at war in the DRC – The Inside Story, 22 August 2014*. Available from: <http://www.timeslive.co.za/local/2014/08/22/south-africa-at-war-in-the-drc--the-inside-story>. (Accessed 21 September 2016).
22. Holmqvist-Jonsäter, C and Coker, C (eds). 2010. *The Character of War in the 21<sup>st</sup> Century*. New York: Routledge.
23. Kilcullen, D.J. 2010. *Counterinsurgency*. Oxford: Oxford University Press.
24. Langille, H.P. 2014. "Improving United Nations Capacity for Rapid Deployment". In: *International Peace Institute: Providing for Peacekeeping No 8*, October 2014.
25. Lansford, T (ed). 2013. *The Political Handbook of the World*. Los Angeles: Sage.
26. Le Roux, L. 2007. *South African Army Vision 2020 Security Challenges Shaping the Future South African Army*. Pretoria: Institute for Security Studies.
27. Mahnken, T.G. 2008. *Technology and the American Way of War*. New York: Columbia University Press.
28. Mrozek, D.J. 2002. *Air Power and the Ground War in Vietnam: Ideas and Action*. Honolulu, University Press of the Pacific.
29. Neethling, T and Hudson, H (eds). 2013. *Post-Conflict Reconstruction and Development in Africa: Concepts, Role-Players, Policy and Practice*. Tokyo: UN University Press.
30. Prakash, C. 2011. *MONUSCO Military Engineer SOP, Force Commander MONUSCO*, November 2011.
31. Rich, P.B and Duyvesteyn, I (eds). 2010. *Routledge Handbook of Insurgency and Counterinsurgency*. New York: Routledge.
32. South African Army College. 1996. *Operational Concepts: Staff Officer's Operational Manual, Part VII*. Pretoria: 1 Military Printing Regiment.
33. SA Army Vision 2020 Team. 2006. *SA Army Strategic Profile*. Pretoria: SA Army HQ.
34. SA Department of Defence. 2015. *South African Defence Review 2015*. Pretoria:



Government Printing Works.

35. SANDF. 2008. *SANDF Military Strategy*. Pretoria: SANDF HQ.
36. SANDF. 2007. *Joint Warfare Publication 139: African Battlespace*. Pretoria: SANDF.
37. SANDF. 2009. *Joint Warfare Publication 137: Defence Doctrine*. Pretoria: SANDF.
38. SANDF. 2009. *Joint Warfare Publication 106: Peace Support Operations*. Pretoria: SANDF.
39. SA National War College. 2010. *Campaign Planning Process*. Pretoria: SANDF.
40. Shrader, C.R. 2009. *History of Operations Research in the United States Army*. Washington: US Army.
41. Smit, K. 2014. *UN Presentation*. Available from: <https://www.vhpa.org/heliloss.pdf>. (Accessed 13 September 2016).
42. Strachan, H. 2013. *Contemporary Strategy in Historical Perspective*. Cambridge: Cambridge University Press.
43. Strachan, H and Scheipers, S (eds). 2011. *The Changing Character of War*. Oxford: Oxford University Press.
44. Tzu, S, tr. Sadler, A.L. 2009. *The Art of War*. Tokyo: Tuttle.
45. UK Army. 2012. *Joint Concept Note 2/12I Future Land Operating Concept*. Swindon: Ministry of Defence.
46. UK Ministry of Defence. 2012. *Joint Concept Note 1/14 Defence Joint Operating Concept*. Swindon: Ministry of Defence.
47. US Army. 2014. *TRADOC Pamphlet 525-3-1 The US Army Operating Concept, Win in a Complex World 2020 – 2040*. Fort Eustis: TRADOC Publications.
48. US Army. 2009. "US Army Capstone Concept: Draft Version 2.7", In: *TRADOC Publications*.
49. US Army War College. 2011. *How the Army Runs, A Senior Reference Handbook, 2011-2012*. Carlisle: US Army.
50. Vicente, J. 2009, "Toward a Holistic View of Warfare", In: *Empresa da Revista Militar*, Vol 2, No 3.
51. Wodehouse, T and Ramsbotham, O (eds). 2000. *Peacekeeping and Conflict Resolution*. London: Frank Cass.