

Editorial

We mark the end of 2016 with our final issue of the year, Pointer Vol. 42, No. 4. As we reflect on all that has happened this year, one thing is very clear to us – the need to be vigilant and alert, always ready to protect our country and defend our sovereignty. As our Minister for Defence, Dr Eng Eng Hen said: “But one constant remains, whether in 1966, 50 years ago, today, and I suspect 50 years hence. Threats will remain, because this is the nature of geo-politics as history teaches us. Today, it is the threat of extreme terrorists.”¹

The topics in the essays published in this issue cover a discussion on the evolution and development of The Five Power Defence Arrangements (FPDA) as well as a discourse on the rise of cyber power and the impact of information technology.

The essay entitled, ‘The Five Power Arrangements: A Contemporary Assessment.’ is by MAJ Pek Wee Kian. According to MAJ Pek, the FPDA came into being in 1971 as the third security arrangement involving Australia, New Zealand, Britain, Malaysia and Singapore. In his essay, MAJ Pek attempts to trace the evolution of the FPDA over the past forty five years. He examines the contemporary interests of each member state as well as the potential pitfalls and opportunities in the future. Finally, he assesses whether the FPDA will survive the next forty five years.

In the essay, ‘Cyber Power – An Age of Perpetual Disruption’, ME5 Calvin Seah Ser Thong makes an analysis of the importance and impact of cyber power. ME5 Seah highlights that since the introduction of the internet in the 1990s, the internet has been rapidly growing in terms of usage and that countries have to use the internet to their advantage as the world is moving towards the cyber age. In his essay, ME5 Seah first defines the meaning of cyber power and explains why it is important in this day and age. Next, he briefly describes what perpetual disruption through cyber power is and how these attacks would affect the defence force of any country. Lastly, using examples of cyber threats that had happened in the

last decade, ME5 Seah describes how the examples would result in perpetual disruption by cyber power. According to ME5 Seah, cyber threats are wide-spanning, accessible and boundary-less. In the final analysis, ME5 Seah feels that cyber threats have become the norm and will continue in an age of perpetual disruption.

ME5 Su Juncun’s essay is entitled, ‘Information Technology: Friend or Foe.’ According to ME5 Su, Information Technology (IT) has advanced by leaps and bounds over the past few decades. ME5 Su examines the implications of the advancement of IT on Singapore and the Singapore Armed Forces (SAF). He begins by tracing the rapid growth of IT and along with it, the evolution of cyber warfare, which has opened up a new battlefield in the realm of cyber space and shown the capability to facilitate psychological operations and perception management. On the other hand, ME5 Su contends that IT has presented many new opportunities for the SAF to exploit, especially in the areas of learning and training, safety and administration and raising public awareness via social media platforms. By employing a combination of ‘Quality’ and ‘Quantity’ safety nets, ME5 Su feels that the SAF will be better able to counter cyber attacks, also reaping the many benefits of IT advancements to further enhance its effectiveness in defending the nation.

In this issue, we are also pleased to feature two papers which were presented at the Goh Keng Swee Command and Staff College (GKS CSC) Seminar 2015. Held at the SAFTI Military Institute from 8th to 9th October 2015, the GKS CSC Seminar was entitled ‘The Role of Technology in the 21st Century Battle-Space’ and jointly organised by GKS CSC, the S. Rajaratnam School of International Studies (RSIS) and the SAF-NTU Academy (SNA).

The first of these essays is entitled, ‘The Role of the Military in Cyber Space: Civil-Military Relations and International Military Co-operation’ and is by Ms Caitríona Heintz. In her essay, Ms Heintz highlights the significance of co-ordination that is key at both the national level within

a state and between countries from a strategic and policy perspective for cyber-related issues. She considers several significant matters that arise in terms of the role of the military and civil-military co-ordination for cyber security. She also highlights a number of challenges in finding the right roles and responsibilities for the military in national cyber security and then focuses on military co-operation and dialogue. Finally, she analyses how to ensure that there are mechanisms to prevent further escalation when militaries are involved in managing these threats.

Dr Thomas X. Hammes' essay is entitled, 'Technologies Converge and Power Diffuses.' According to Dr Hammes, the convergence of dramatic improvements in the fields of robotics, artificial intelligence, materials, additive manufacturing and nano-energetics are dramatically changing the character of conflict in all domains. These developments will provide smaller powers—and even some individuals—with capabilities that used to be the preserve of major powers. According to Dr Hammes, this diffusion of power has major implications on the conduct of warfare and national strategy. This is because while massive investment in mature technology leads to only incremental improvement in capabilities, the proliferation of many small and smart weapons may simply overwhelm a few exceptionally capable and complex systems. Strategically, small nations will be able to afford effective anti-access/area denial (A2/AD) defences that can defend not only their territories, but also reach out to strike an invader's intermediate and home bases. They can generate many of

the capabilities of the most expensive current systems at a fraction of the cost, which will drastically change the calculus of intervention. However, the critical military functions will remain—but how they will be accomplished will change. Dr Hammes feels that rather than investing everything in few, exquisite and very expensive systems, it makes more sense to explore augmenting them and, in time, replacing them with systems that conform to small, smart, and many.

We are pleased to announce that the Chief of Defence Force Essay Competition 2016/2017 is now open for participation. We would like to invite all our readers to take part in the competition. Details can be found on the POINTER website: <http://www.mindef.gov.sg/safti/pointer>.

At this juncture, POINTER would like to bid farewell to our Chairman of the POINTER Editorial Board, COL Ng Wai Kit as he retires from service. We wish to thank COL Ng for his support, advice and encouragement. POINTER has benefitted much from his insightful observations and on a wide variety of military subjects. We wish you all the very best in the next stage of your career as you hang up your uniform, Sir.

We also bid a fond farewell to CFC Delson Ong. We thank him for all his contributions and wish him the very best in his future endeavours. Finally, we would like to wish all our readers a Merry Christmas and a Happy New Year! Happy Holidays!

The POINTER Editorial Team

ENDNOTES

1. https://www.mindef.gov.sg/imindef/press_room/details.html?name=27oct16_speech&date=2016-10-27#.WEYlk9J97IU