

Editorial

This issue commences with a perspective piece by Sanjay Badri Maharaj titled 'Air Support for Internal Security Operations: What India can Learn from Trinidad and Tobago'. The author begins by discussing how air power has long been recognised as a useful asset in internal security operations, running the full gamut from militarised counter-insurgency (CI) and counter-terrorist (CT) operations to the mundane task of crowd control. India's experiences in CI operations in Jammu and Kashmir (J&K), the North-East and left-wing extremist (LWE)-affected areas have also involved the use of Indian Army Aviation and Indian Air Force helicopters. However, the Central Armed Police Forces (CAPFs) and state police forces have made little use of helicopters, with the exception of the Border Security Force (BSF) which operates a small fleet of aircraft and helicopters on behalf of the Ministry of Home Affairs, and whose Dhruv and Mi-17 helicopters have been deployed in anti-LWE operations, essentially in a support role.

While much smaller in terms of area and population as well as having a very different geographical profile, Trinidad has made extensive use of air assets for internal security operations, with mixed results. The country's main security challenge has been from the related activities of narcotics and weapons smuggling and heavily armed criminal gangs, which vie for control of urban centres, and some of which have links to avowed jihadi groups. As criminal gangs became better armed and organised, ground-based operations required air support, leading Trinidad to deploy assets accordingly. Badri-Maharaj says that, in contrast, India's police forces have made next to no use of aviation assets in support of their regular or even special operations in urban areas. In this sphere, Trinidad offers lessons which can be gainfully employed to facilitate the employment of such resources by the Indian police forces. While the author has offered suggestions derived from a particular operational environment, transplanting these to a vastly different Indian context will naturally involve many modifications.

Kishore Kumar Khera contributes an article to the issue titled 'International Military Exercises: An Indian Perspective'. He begins by elucidating how international military exercises are an extension of military training for partner countries as well as a significant military diplomacy tool. The Indian armed forces have engaged 23 countries in 93 international military exercises since 2012. Khera's article analyses the data regarding these exercises in terms of participating countries and services from India. Outlining the benefits and possible pitfalls of participation in international military exercises, the author suggests a holistic policy review on the subject. A key contribution of the article is how it lists out factors that need to be considered while planning an international military exercise in terms of objectives, participants, frequency and scale. This is a timely piece that elaborates on the issue at the conclusion of Exercise Malabar (2017), a complex and advanced naval exercise hosted by the Indian Navy that saw large-scale participation by the navies of Japan and the United States.

In 'Public-Private Partnership for MRO in Defence: Application to Aerospace and Land Systems', Chandrika Kaushik examines the various aspects of employing public-private partnership (PPP) for carrying out maintenance, repair and overhaul (MRO) activities for aerospace and land forces in India. The PPP in MRO is expected to increase the uptime of the existing equipment, and enable full exploitation. Furthermore, it would enable harnessing the efficiencies of the private sector while using resources that exist in the public sector. The article also covers the broad concepts and operational philosophy of MRO for defence equipment. The author also includes a small case study on the enabling mechanisms implemented by the United States in fostering PPP in MRO; the country was one of the world's major early adopters of this method. Kaushik seeks to build up a case for exploring possible exploitation of PPP for MRO in the Indian defence sector, to enable learning of how to leverage the potential of the private sector and the facilities available in the public sector, with the government retaining overall control.

Kevin Desouza's article 'Transfer of Defence Technology: Exploring the Avenues for India', discusses how India has been the recipient of transfers of defence technology predominantly through the licensed manufacture mode. While being cheap and easy to implement, this has some major limitations. Desouza then sheds light on alternate modes of technology transfer and explores additional possibilities through a broad perspective on technology development. The article attempts to assess

the relative strengths of each mode, the challenges in implementation and indicates a way forward to meet suitable national goals. The discussion reveals some challenges that are relevant in the Indian context: stringent regulations (both unilateral as well as multilateral) on transfer of technology, for example, the US International Traffic in Arms Regulation and the Wassenaar Arrangement; India's intellectual property rights policy being perceived as weak; a work culture that tends to encourage quick innovations for short-term and cheap solutions, and assigns a lower priority to delivering quality and long-term capability building; and the risk-averse attitude in the Indian government and public sector environment, especially in defence matters.

The author concludes by saying that if India desires to achieve technology leadership or at least *technology competence* it needs to move upstream and build world-class capabilities in the earlier steps of technology evolution. If indigenous efforts to build such capabilities are not fruitful, then avenues to import them could be explored. This can only be achieved through painstaking effort and meticulous planning over a period of 10–20 years, maybe more. To reduce the risks, specific fields of technology could be targeted where India possesses some indigenous resources and is placed at an advantageous or at least even footing with others. And that investments in these areas will need to exceed the 'critical mass' necessary to bring results.

The issue also includes four detailed book reviews: S. Kalyanaraman reviews *India's Wars: A Military History, 1947-1971*; Vivek Chadha reviews *The New Arthashastra: A Security Strategy for India*; Sarabjeet S. Parmar reviews *Assessing Maritime Power in the Asia-Pacific: The Impact of American Strategic Rebalance*; and Uma Purushothaman reviews *War Crimes, Atrocity, and Justice*.

