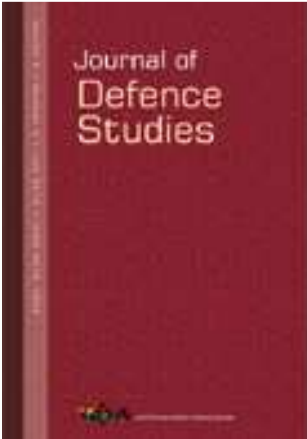


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Journal of Defence Studies

Publication details, including instructions for authors and subscription information:

<http://www.idsa.in/journalofdefencestudies>

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To cite this article: Kishore Kumar Khera (2017): International Military Exercises: An Indian Perspective, Journal of Defence Studies, Vol. 11, No. 3 July-September 2017, pp. 17-40

URL http://idsa.in/jds/jds_11_3_2017_international-military-exercises

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International Military Exercises

An Indian Perspective

*Kishore Kumar Khera**

International military exercises are an extension of military training for partner countries and a significant military diplomacy tool. Since 2012, the Indian armed forces have engaged 23 countries in 93 international military exercises. This article analyses the data regarding these exercises in terms of the participating countries and services. Outlining the benefits and possible pitfalls of participation in international military exercises, it suggests a holistic policy review on the subject. The article also lists out factors that need to be considered while planning an international military exercise in terms of objectives, participants, frequency and scale.

Diplomacy, which is a tool of statecraft, includes military diplomacy as its subset. In most democratic forms of government it is the political leadership that defines the role of the military and, normally, assigns it a significant role in the national security matrix. Therefore, military diplomatic engagement between two or more countries assumes significance. The presence of defence wings in major diplomatic missions of all countries further reinforces this argument.

Military diplomatic engagements primarily take place through the defence wings of diplomatic missions on a continuous basis; the effort is augmented by empowered steering groups (ESGs) with representation of high-level delegation of ministers, bureaucrats and military officials. Such engagements facilitate better professional coordination between the

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two militaries with subject matter expert exchange (SMEE) programmes as well as exchange of trainees in courses conducted at various military training institutes in the two countries. The offer of professional military training unilaterally, combat or combat support equipment, alongwith the relevant training takes the military engagement between two countries to a higher level. However, all such interactions between two militaries have severe limitations in terms of quantum and impact, owing to diplomatic norms and the limitation of focus on basic training activities.

In July 2017, a complex and advanced Exercise Malabar, hosted by the Indian Navy, saw large-scale participation by the navies of Japan and the United States (US). Another first would be the participation by an Indian military contingent in a military exercise that is to be held in Israel in October 2017. This comes post the first visit by an Indian Prime Minister to Israel in July of the same year. The attention these exercises have already received the world over showcase their strategic significance. With this backdrop, this article highlights the Indian armed forces' military exercises with various countries that have occurred over the last five years. Thereafter, it proposes a holistic review of the process of engagement based on strategic and operational factors.

INTERNATIONAL MILITARY TRAINING COOPERATION

Training of and with military personnel of partner countries has a dual impact: firstly, in capacity building in the partner country; and secondly, in generating an understanding between two militaries in terms of professionalism, procedures and processes, and the military ethos. India, for example, assisted Nigeria and Ethiopia in the 1960s in establishing their basic military training facilities. It also deputed teams of military professionals to assist in professional training in a number of countries like Uganda, Zambia, Lesotho, Botswana, Seychelles and Tanzania.¹ This kind of military assistance while India herself was grappling with the after-effects of Partition in 1947 and armed conflicts in 1948 and 1962 is indicative of the recognition of military diplomacy as an important cog in statecraft. These occurrences also helped in establishing close relationships with countries that were, especially in Africa, throwing off the yoke of colonialism which India had herself done when she gained independence in 1947.

India has also offered training to military personnel from partner countries at her military training establishments in order to share combat

experience and technical know-how.² Military training in India, under the technical and educational programme, is extended on a gratis, self-financing or reciprocal basis in keeping with the norms followed internationally.³ In 2016, over 2,000 military training slots were offered to partner countries in various defence institutions in India—a ten-fold increase in the last 16 years.⁴ Data pertaining to the military training slots allotted from 2000 onwards is given in Figure 1.

Afghanistan, Algeria, Australia, Bangladesh, Benin, Bhutan, Botswana, Burkina Faso, Cambodia, Chile, Congo, Egypt, Eritrea, Ethiopia, France, Germany, Ghana, Indonesia, Iran, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Lao PDR, Lebanon, Lesotho, Malaysia, Maldives, Mauritius, Mongolia, Myanmar, Namibia, Nepal, Nigeria, Oman, the Philippines, Qatar, Republic of Korea (ROK), Russia, Seychelles, Singapore, South Africa, Sri Lanka, Sudan, Syria, Tajikistan, Tanzania, Thailand, United Arab Emirates (UAE), Uganda, the United Kingdom (UK), the US, Uzbekistan, Vietnam, Zambia and Zanzibar are some of the countries that have been offered training programmes at various

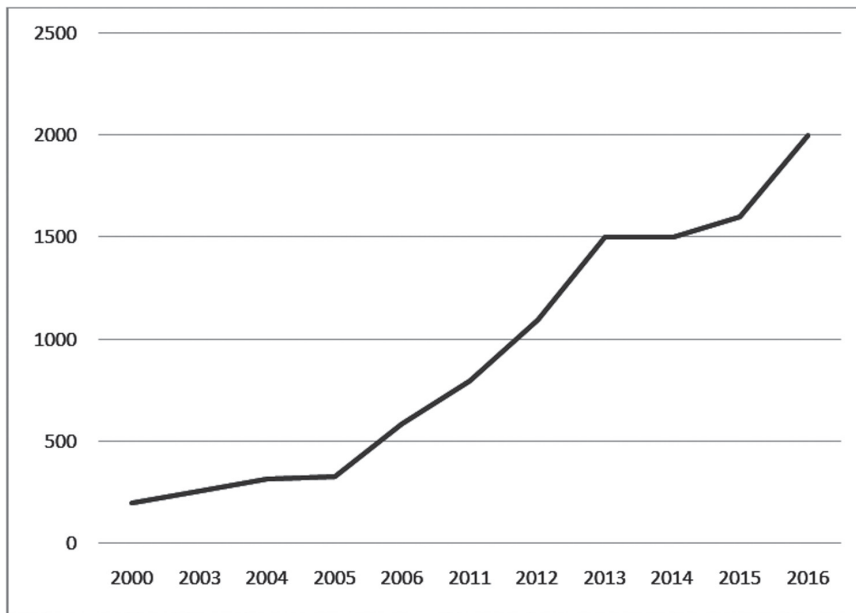


Figure 1 Military Training Slots offered by India to Partner Countries from 2000 onwards

Source: Compiled from *Annual Reports* (2000–2016) of the Ministry of External Affairs, Government of India.

military institutions in India.⁵ Indian military personnel too avail training courses in some of these countries on a reciprocal basis. Besides this, the Indian Army has deployed 10 training teams in Vietnam, Lao PDR, Myanmar, Tajikistan, Seychelles, Namibia, Uganda, Bangladesh and Bhutan for capability-building of the host nations.⁶

This increase in international military training offers is due to the recognition of the potential of such cooperation for achieving the strategic goals that the country seeks. The gravitating of military personnel from a large number of countries to Indian military training institutions for professional military education (PME) indicates the relevance of these institutions in contemporary conflict situations. This has resulted in the Indian Army's defence cooperation, in particular, with 98 countries, including institutionalised 24 international military exercises with 19 countries.⁷

RELEVANCE OF INTERNATIONAL MILITARY EXERCISES

Training courses assist in understanding the theoretical as well as basic aspects of operations and technology. However, military exercises are based on a real-time application of the theoretical knowledge and, therefore, are the highest form of military training. 'Train together to fight together' is the guiding principle of militaries that plan to undertake operations against a common enemy or in common geographic locations. All elements of any military alliance need to have seamless interoperability in terms of communications, processes and procedures for the achievement of laid-down objectives. Therefore, international military exercises are planned to ensure interoperability between various elements of forces of military alliances such as the North Atlantic Treaty Organization (NATO). However, countries with similar outlooks and objectives, not necessarily bound by an alliance, may be required to pool in military resources for a common cause. For such contingencies too undertaking joint military exercises is desirable.

Sharing of military training aspects through international military exercises is one of the most effective confidence-building measures (CBMs) between partners. It helps in understanding the intent and perspectives of participants and normally gives a boost to bilateral ties. The long-term impact of international military exercises on participants is that it allays fears and apprehensions between them and this, in turn, assists in forging a bond of understanding as well as brings about an enhancement of the risk threshold.

The location, time, scale and nature of participants, and stated objectives of an international military exercise can be selected to send a signal to a common adversary. The large-scale US and ROK joint military exercises in ROK, conducted with a stated objective to practice targeting the North Korean leadership, is an example of political and military signalling.⁸ However, conduct of international military exercises in such a fashion could reduce the risk threshold level and act as a trigger for a military confrontation, howsoever undesirable.

The military training pattern is based on the equipment capability and knowledge of the likely adversary. Here, history plays a major role in defining the capabilities of an adversary's armed forces and the method of its employment. Strategic, operational and tactical surprises are the most efficient tools in the bags of armed forces to maximise the impact of available combat capability. This results in the entire process of military training remaining under cover. Lessons from past/ongoing conflicts in the world are also modulated before being released, and are often done with a defined agenda. More often than not, the available literature is never adequate/authentic when it comes to enhancing the force application methodology or development/acquisition of technology. Therefore, a force-to-force interaction between forces with different operational experience and technology plays a key role in this respect. International military exercises provide a perfect backdrop for such an interaction.

Also, disasters can strike with no warning and the military is often the first respondent in any large-scale natural or man-made disaster, both within a country and internationally. An understanding between the militaries of the disaster-struck country and the relief provider can substantially reduce the reaction time for deployment of relief teams, thereby minimising the impact of disaster. Joint military exercises provide the necessary impetus to such an understanding and play a pivotal role in efficient aid disbursement in the provision of humanitarian assistance and conduct of disaster relief (HADR) situations. Operation Maitri is a good example of efficient support provided by the Indian armed forces to Nepal in the aftermath of the earthquake that struck the country in April 2015.

Due to these reasons, a large number of structured military exercises are planned and executed in various regions of the world every year. According to Military Balance 2017, over 100 international military exercises are carried out within one calendar year, with participation of

Table I Major International Military Exercises in 2016

<i>Region</i>	<i>Major International Exercises</i>	<i>Participants</i>
Asia	Cobra Gold, Cope North, Key Resolve, Shaheen, Khan Quest, Balikatan, Friendship, Blue Chromite.	Australia, the UK, the US, Cambodia, Singapore, Thailand, Japan, ROK, Canada, Mexico, Norway, Guam, Jamaica, India,
West Asia & North Africa	Shamal Storm, Arabian Gulf Shield, Union, African Lion, Eager Lion, Sun Mountain, Defenders of Friendship.	Italy, Argentina, Brazil, Panama, France, Germany, Colombia, Spain, Armenia, Belgium, Poland, Romania, Turkey, Serbia, Denmark, Finland, New Zealand,
Sub-Saharan Africa	Cutlass Express, Flint Lock, Nemo, Southern Accord.	Sweden, Georgia, Latvia, Portugal, Hungary, Romania, Slovakia, Ukraine, Kosovo, Belarus,
Russia and Eurasia	Steppe Eagle, Dragon Pioneer, Noble Partner, Cooperation, Unbreakable Brotherhood, Russia Belarus Joint Exercise.	Russia, China, Kazakhstan, Kyrgyzstan, Indonesia, the Philippines, South Africa, Pakistan, Magnolia, Tajikistan, Nepal, the Netherland, Jordan, Egypt Djibouti, Kuwait, Morocco,
Europe	Dynamic Manta, NATO Crisis Management Ex, Cold Response, Saber Junction, Brilliant Jump Alert, Griffin Strike, Joint Warrior, Ramstein Alloy, Flaming Sword, Spring Storm, Open Spirit, Combined Resolve.	Senegal, Tunisia, Oman, Sudan, Qatar, Bahrain, Chile, Haiti, Uruguay, Rwanda, Tanzania, Kenya, Uganda, Gabon, Congo, Togo.
North America and Canada	Red Flag, Emerald Warrior, CARAT, Pacific Dragon, RIMPAC, PANAMAX, Amalgam Eagle, Green Flag and Cutlass Fury.	
Latin and Central America	Fuerzas Commando, Trade Winds, Austral, Unasur.	

Source: International Institute for Strategic Studies (IISS), *Military Balance 2017*, London: Routledge, Chapman & Hall, 2017, pp. 550–53.

almost all countries with recognisable military forces.⁹ Region-wise major international military exercises carried out in 2016 are given in Table 1.

With a global military deployment, the US participated in the largest number of international military exercises in 2016. China, though a late starter, participated in 20 international military exercises in 2016, with a 50 per cent share going to People's Liberation Army Navy (PLAN) (see Figures 2a and 2b). The People's Liberation Army Air Force (PLAAF)

was involved only in one annual exercise—Shaheen—in Pakistan and the military games organised in Russia. Besides Russia and Pakistan, the Chinese military engaged India, Australia, Cambodia, Germany, Indonesia, Malaysia, Thailand, the US and Shanghai Cooperation Organisation (SCO) nations.¹⁰ China deputed 22 military teams (People’s Liberation Army [PLA]: 17; PLAN: 2; PLAAF: 3) to Russia and one each to Brazil and Kazakhstan in 2016,¹¹ indicating a strong leaning and willingness to expand its footprint.

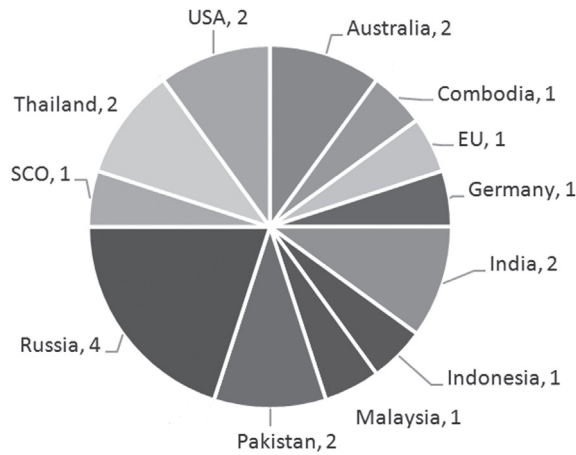


Figure 2a China’s International Military Exercises in 2016

Source: Chinese Ministry of National Defense, available at http://eng.mod.gov.cn/MilitaryExercises/index_3.htm, accessed on 9 May 2017.

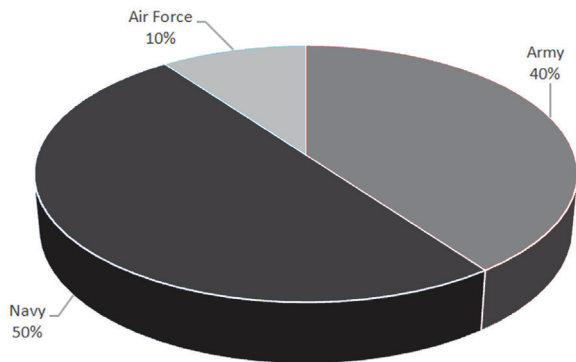


Figure 2b Services Share of China’s International Military Exercises in 2016

Source: Chinese Ministry of National Defense, available at http://eng.mod.gov.cn/MilitaryExercises/index_3.htm, accessed on 9 May 2017.

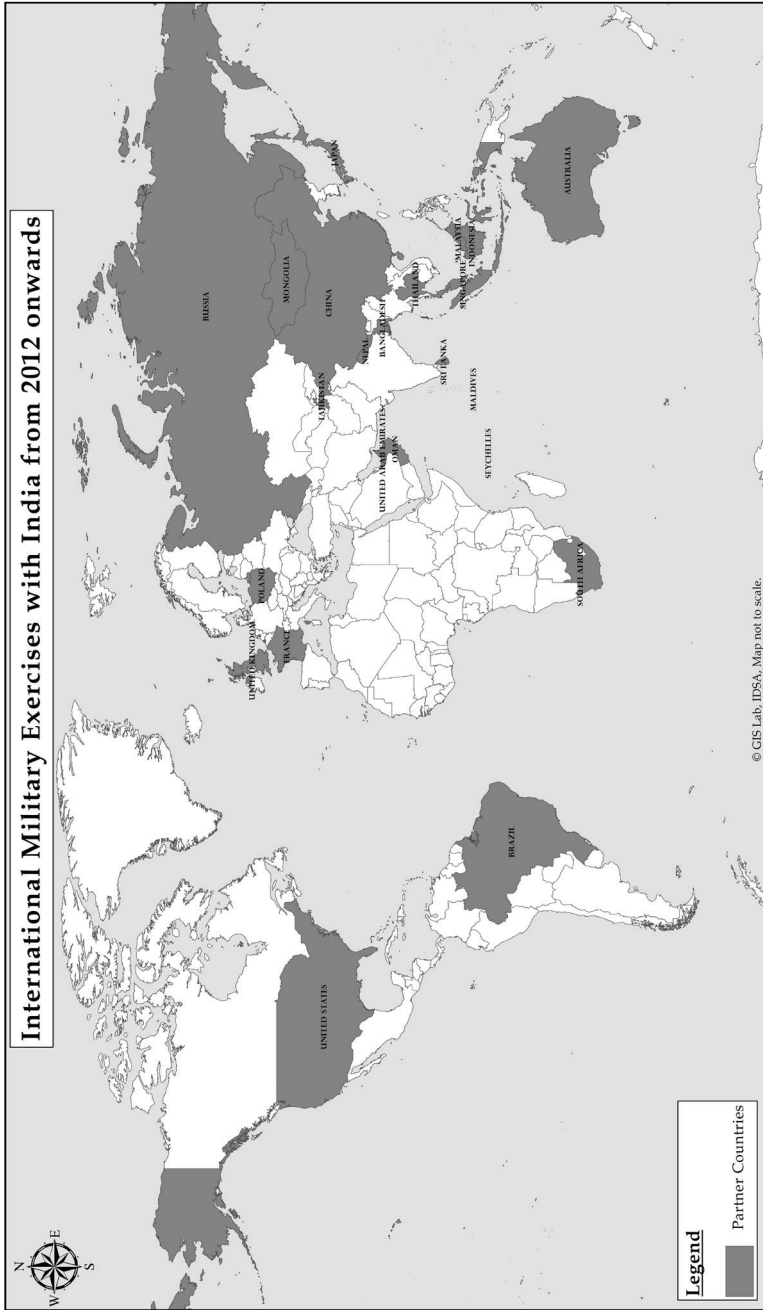


Figure 3 Partner Countries for International Military Exercises with India from 2012 onwards

Source: Ministry of Defence, *Annual Reports (2011–12 to 2015–16)*.

Note: – countries participated in joint military exercises with India from 2012 onwards.

INTERNATIONAL EXERCISE PARTICIPATION BY
THE INDIAN ARMED FORCES

According to the *Annual Reports* of the Ministry of Defence (MoD), Government of India, from 2011–12 to 2015–16, the Indian armed forces have been engaging a number of countries through regular international military exercises in India and abroad (see Appendix Table A1).¹² Partner countries for international military exercises that India conducted or was part of from 2012 onwards are depicted in Figure 3. The share of various countries in these international exercises by Indian armed forces is given in Figure 4. Singapore and the US head the list with 12 engagements since 2012 amongst the list of 23 countries in this category.

The Indian Army has expanded the engagement envelope for international exercises focused on various domains of warfare that are decided mutually with the partner countries. The Indian Navy regularly exercises with various foreign navies at both at bilateral and multilateral levels in three participative formats: passage exercises (PASSEX); occasional exercises; and institutionalised exercises. PASSEX are conducted when ships of either navy pass near the other's coast, with the duration and complexity determined as per the operational considerations and degree of interoperability attained. Occasional exercises are those periodic international exercises on maritime security or HADR in which the Indian Navy participates occasionally on the sidelines of overseas deployments. Institutionalised exercises are conducted on regular basis with partner countries in areas of maritime interest, with the scope and content progressively enhanced for traditional and non-traditional maritime challenges.¹³ Exercise Malabar (with the US since 1992); Exercise Thammar-al-Tayyib, renamed as Exercise Naseem-al-Bahr in 2007 (with Oman since 1993); SIMBEX (with Singapore since 1994); Exercise Varuna (with France since 2001); Exercise INDRA (with Russia since 2003); Exercise Konkan (with the UK since 2004); Exercise SLINEX (with Sri Lanka since 2005); Exercise IBSAMAR (with Brazil and South Africa since 2008); Exercise JIMEX (with Japan since 2012); AUSINDEX (with Australia since 2012); and Exercise KOMODO (with Indonesia since 2015) all into this category.¹⁴

The Indian Air Force (IAF) has come a long way after its first international exercise with participation of fighter aircraft, Exercise Garuda-I with France, in India in 2003. Other exercises in various formats have also been conducted since then. These include: Exercise Cooperative Cope Thunder, later renamed Exercise Red Flag-Alaska

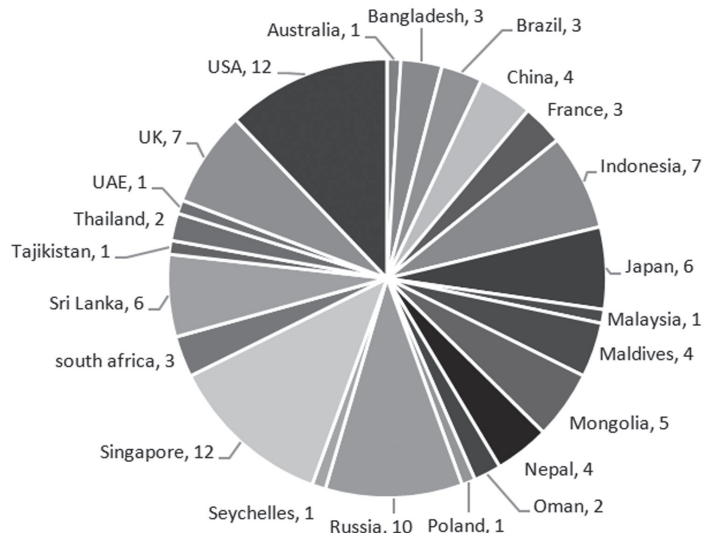


Figure 4 Depicting Countries Engaged by the Indian Armed Forces in Military Exercises since 2012 along with Frequency

Source: Ministry of Defence, *Annual Reports* (2011–12 to 2015–16).

Exercise Red Flag-Nellis and Exercise Cope India (with the USA since 2004); Exercise Golden Eagle (with South Africa since 2004); Exercise Indradhanush (with the UK since 2006); Exercise Desert Eagle (with the UAE since 2008); Exercise Eastern Bridge (with Oman since 2008); Joint Military Training (JMT) (with Singapore since 2007); Exercise Avia Indra (with Russia since 2014); and Exercise Siam Bharat (with Indonesia since 2015).

The Indian policy of engagement with neighbours is depicted in Figures 5a and 5b, which indicates 55 per cent share for Asian countries in international military exercises. Africa's share, at just 4 per cent, is considerably lower than its strategic significance.

In our context, the largest engagement is by the Indian Army (Figure 6). The probable reason for this is the multiple roles that being the largest of the three services, the army needs to play in the prevailing environment in counter-insurgency/terrorist operations, special operations and disaster relief. A large number of international military exercises, in fact, are focused on these themes.¹⁵ The navy, owing to its nature, has been involved in international port calls and anti-piracy operations, and as it continuously operates in international waters it needs to coordinate and synchronise operations with the other players there.

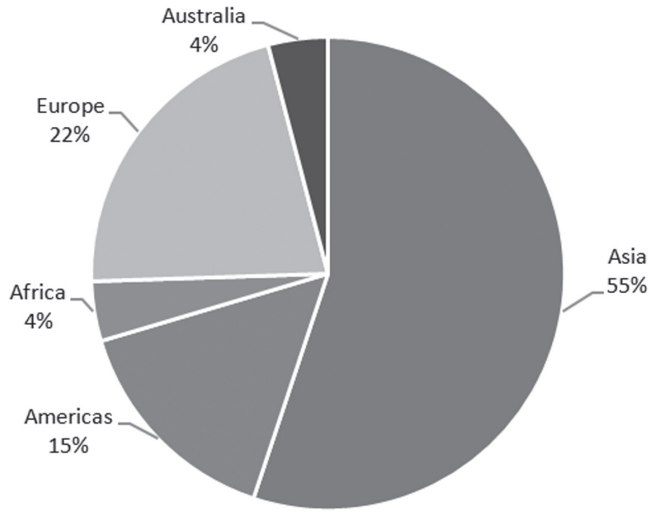


Figure 5a Continent-wise Share of International Military Exercises by India since 2012

Source: Ministry of Defence, *Annual Reports* (2011–12 to 2015–16).

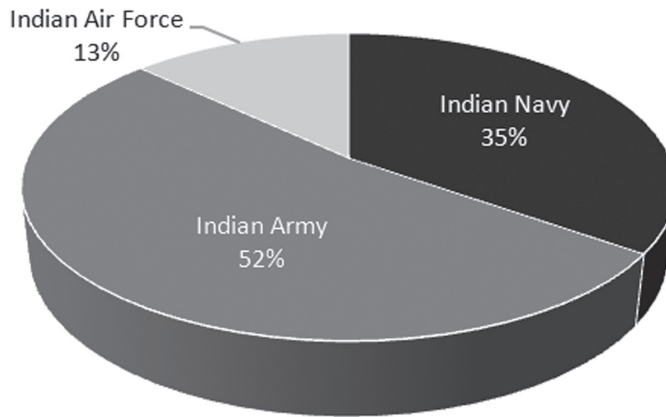


Figure 5b Share of Individual Services in India's Participation in International Military Exercises since 2012

Source: Ministry of Defence, *Annual Reports* (2011–12 to 2015–16).

The Indian Army is, on an average, participating in 10 international exercises annually; the Indian Navy in six exercises besides PASSEX; and IAF averages two per year as depicted in Figure 6. There are many reasons for the low number of exercises involving the air force. In the hierarchy of

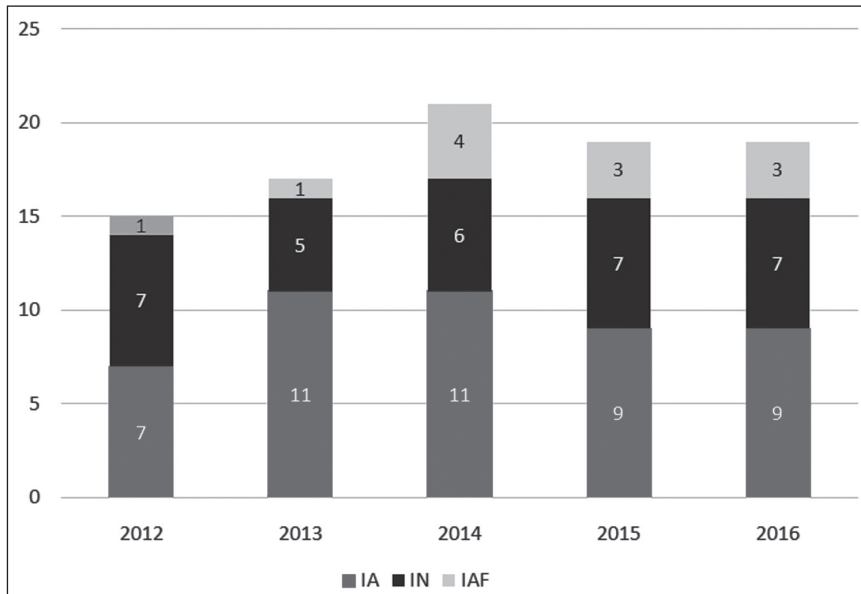


Figure 6 Depicting Year-wise Share of the Three Services in Participation in International Military Exercises since 2012

Source: Ministry of Defence, *Annual Reports* (2011–12 to 2015–16).

international military exercises, an exercise involving aircraft, especially fighter aircraft, is considered at the highest level because of its impact and optics. Therefore, the number of exercises involving air forces are relatively low, and generally take place between militaries after a great deal of mutual understanding has been achieved in the other military and strategic domains. A common language is essential for an exercise with fighter aircraft as there is little reaction time, but this is not mandatory for naval or army exercises as interpreters can be used. Exercises with fighter aircraft are intricate and necessitate a large coordination effort involving the participant country and the large number of countries enroute to ensure diplomatic clearance for flight. Apprehensions in certain sectors/countries for permitting fighter aircraft to approach from certain directions and restricted aerial refuelling corridors make planning for international military exercises with fighter aircraft a challenging task. Another area of concern while planning an international exercise with fighter aircraft is the availability of suitable diversions enroute to the planned destination. A large capability differential between participants restricts usefulness of an aerial combat exercise. This restricts the number of air forces which

can engage in military exercises with combat operations as a basic theme. However, for HADR or application of air power in sub-conventional operations, such near parity is not essential. Finances too play a role in air force exercises as the associated costs are significantly higher than exercises by the other two services.

The Indian armed forces, as mentioned earlier, have carried out military exercises with 23 partner countries since 2012. The objectives of military exercise with these countries are distinct and based on the capabilities of the participating countries. Almost all exercises hosted in India are bilateral in nature and are predominantly single-service exercises. However, there are some exercises that are multilateral. Only five countries—that is, Indonesia, Russia, Singapore, the UK and the US—have been engaged by all the three services in this period, and France and Sri Lanka have been engaged by two services. The rest (16 countries) have been engaged by a single service only.

At the battalion level, Exercise Surya Kiran with the Nepal Army is the biggest Out International Military Exercise (OIME) by the Indian Army in terms of the number of troops participating.¹⁶ Participation by the Indian Navy has been normally restricted to a maximum of four ships for an OIME. Although Exercise Red Flag-08 in the US saw participation by 247 personnel from IAF, it was Exercise Red Flag-16-1 conducted in Alaska in the US that is considered the biggest OIME by the IAF. This saw participation of four different types of aircraft—four Su30MKI, four Jaguar, two IL78, and two C17—making for a total contingent of 12 aircraft and 200 personnel.

POLICY IMPERATIVES FOR EXERCISES

A holistic assessment of military engagement through international military exercises and its alignment with national long-term vision is important for strategic reasons. The factors that need to be considered in the policy review of engagement with partner countries for international military exercises are covered in this section.

Objectives

For military alliance partners, joint military exercises are an operational necessity to ensure interoperability of operational, communication-related, logistical as well as procedural aspects. Failure to achieve synergy in these aspects would result in suboptimal operational execution. However, for countries like India which are not part of any military

alliance, the objective of international military exercises is not only to learn from the best operational practices of others but also to gain from their maintenance, logistical and administrative experiences. Exposure to technological advances, associated problems and varied operational environment management assists all participants in enhancing their individual capabilities and helps in charting a future course of action based on realistic appraisal. Besides operational objectives, international military exercises are designed to institutionalise a framework for quick and efficient HADR missions.

Partner Selection

Obviously, likely enemies can never be partners in any joint military exercise. Partners need to be chosen very carefully with an intent to have one's own forces exposed to different aspects of force and technology application. The broad categories under which exercise partners should be selected are as follow:

1. Countries that engaged in conflicts in recent times and have had an operational experience of employment of current technologies.
2. Countries with state-of-the-art technologies inducted in their armed forces.
3. Countries in the neighbourhood that may have to be supported for HADR missions.
4. Countries that need development of force application concepts based on our experience and technology.

Bilateral or Multilateral

The number of participants in a military exercise should be decided based on the following: objectives that are sought to be achieved, the level(s) of engagement, equipment profile, language and common interests. Bilateral exercises result in greater interaction between the participants and a focused approach for the achievement of objectives. However, multilateral exercises allow for simultaneous engagement with multiple countries, thus making the process more efficient. The selection of partners for multinational engagement needs to be done taking cognizance of their individual capabilities, objectives and sensitivities. It must be kept in mind that the lowest capability denominator defines the highest level of complexity of a military exercise in this scenario. Participants with similar capability to the host nation would be optimal.

Single Service or Multi Service

In a single-service international exercise, it is possible to ensure that the exercise objective is in consonance with the service core. Engagement with countries with state-of-the-art technologies already inducted in their armed forces makes for the best case for single-service interaction. However, with all other partners, multi-service engagement is optimal because in war as well in HADR missions multi-service engagement is envisaged.

Where

Ideally, international exercises should be held alternatively in partner countries. However, this is not an advisable solution in the case of a multilateral exercise. The basic infrastructure for conduct of an international exercise and availability of combat elements to achieve the stated objectives are essential to assess the suitability of a venue. Administrative challenges apart, hosting a multilateral exercise is operationally and financially the best option as it provides the opportunity to grant exposure to the maximum number of combatants.

Sequence

The scale of international military exercises should be defined based on the designated objectives to be achieved. Logically, the engagement must commence with calling/sending observers from the countries that are planning to engage through military exercises to other international military exercises. This can be followed by a tabletop exercise and systematically upgraded to a staff exercise (or command post exercise or war gaming) before undertaking missions with combat assets. However, this process can be fast-tracked based on mutual understanding achieved between the militaries.

Scale

The scale of participation must be based on the intended objectives and should invariably consist of at least one independent combat element. For exercises planned outside the country, owing to various financial and technical factors, the minimum forces that participate should be: one company (army), one ship (navy), four fighter aircraft/one transport aircraft/four helicopters (air force), along with the requisite operational, maintenance and logistics support elements. However, for the international exercises planned within the country, the aim should be to

give exposure to the maximum number of personnel within the defined exercise objectives, and resources should be committed accordingly. With countries operating similar combat equipment, bilateral exercises can be held without movement of combat assets by utilising the host nations assets and benefitting from the resultant low costs.

Frequency

Conducting an international military exercise puts a strain on the annual training programme of the armed forces, and the exercises planned outside the country result in additional financial liability. However, international military exercises are essential for operational growth and ensuring rapid HADR support. In order to balance these two contrary requirements, a calendar needs to be chalked out to ensure engagement with all countries in the intended group at least once every five years.

IMPACT OF INTERNATIONAL MILITARY EXERCISES

Benefits

Strategically, international military exercises assist in forging a bond between participating nations and enhance the level of cooperation between them. This cooperation in military affairs has the potential to expand to other arenas, especially related to technology, human resources, training, education and the economy. Mutual benefits from this expansion lead to greater synergy and a cohesive policy formulation.

International exercises assist in operational interaction with military professionals trained in an entirely different operational environment. Although a number of restrictions are laid down during the conduct of the exercise, a large number of tactical surprises are experienced by the participants. This, in fact, constitutes the biggest gain from this interaction as it helps in grooming combatants in tackling varied operational situations. This forms an important input for refining training methodology too. Another area of significance is the force application planning process. Each participant, based on the defined objectives, plans an independent force application. While the plan springs no surprises as it is normally based on time-tested military principles, the process followed by each participant is different and thus assists in understanding the different routes and ways along with stabilising/destabilising factors. This ultimately leads to a greater understanding of the force application methodology that can be employed in an operational scenario. It is not

necessary that in an international military exercise no benefit accrues by engaging a force with lower technology or combat experience. An analysis of Exercise Cope India 2004, which was conducted with the US Air Force (USAF) in India, assisted it a great deal in understanding the tactical advancements that were underway in a specific context.¹⁷

Military exercises carried out between combat elements of a country's own forces suffer from a 'Blue-on-Blue' tactical employment as both sides are trained together in the same environment with same set of military lessons. Interacting professionally in an operational situation, albeit as a training event as part of international military exercise, highlights the weaknesses of tactical employment plans as both participants have been trained differently. Additionally, empirical data can be obtained to support a theoretical comparative analysis of the combat equipment of participants.

International military exercises assist in bridging gaps between the participating militaries. As military conflict is the last stage of relationship between any two countries, the involvement of their militaries in a joint exercise, rather than in war, is the best form of CBM. The Hand-in-Hand series of exercises between the Indian Army and the PLA, undertaken every year and with the location alternating between India and China, are a perfect example of the power of international military exercises as a CBM.

Forces that need to operate in an overlapping operational environment for war or for humanitarian and disaster relief need to have common operating processes to obviate the risk of sub-optimal operational efficiency. International military exercises are ideal tools for formulating, testing and finalising such interoperable processes between the partners. Once inter-operability is established, the participants will be able to achieve high level of operational efficiency.

The strategic, operational and tactical growth of the armed forces is inherently organic in nature and stems from their operational experience. Development in this regard also takes place by learning and analysing events of military significance that are occurring in other parts of the world. However, interaction with military operators and forces which have directly or indirectly participated in significant military events is of immense military value for learning the outcome of various strategies and tactics. Such interaction takes place through visits and seminars but is most productive during an international military exercise. The lessons learnt by each participant during his/her operational experience find

a way in his/her thought process, operational procedures and tactical employment. Therefore, the best practices of the participants can be learnt and followed as well as employed in one's own processes, with suitable modifications as per the prevailing operational environment. For example, various techniques of 'Broadcast Control' found their way into the IAF through lessons learnt from international exercises with the French Air Force, the UK's Royal Air Force (RAF) and USAF.

The purpose of armed forces across the globe is the same, yet each country develops its armed forces as per its requirements. Based on the objectives and initial model of development, various processes associated with the armed forces gradually develop for optimisation. The organisation of combat elements into various groupings, their tactical deployment, equipment profile, and associated logistical tentacles are based on operational doctrine of the force. Interaction at a tactical level through international military exercises gives an insight into the factors affecting these aspects and its development process in different settings. This is a very useful knowledge and cuts down the development time for creating an optimal model whenever the objectives or equipment profile undergo a transformation.

International exposure of combatants and their interaction with similarly placed combatants of other forces during an international military exercise helps in getting out of the 'frog-in-the-well' syndrome. Exposure during international military exercises induces a systematic change in the work culture and operational thought process. These two attributes appear intangible, yet have a profound impact on the overall force capability and its functioning.

Pitfalls

International military exercise engagements are undertaken with the aim to boost one's national interests and image. However, media reports in 2015 of a '12-0' score in Exercise Indradhanush between the IAF and the RAF, and the follow-on debate ended up undoing a lot of the goodwill that was generated by the bilateral exercise.¹⁸ In fact, after this event, media reports for all international exercises have been restricted to primarily Press Information Bureau (PIB) press releases.

International military exercises are carried out within well-defined, pre-decided and mutually agreed rules of engagement (RoE). Context is of considerable importance in such cases. Therefore, the lessons drawn from such engagements need to be viewed in light of the restricted space

and conceptualisation of operations. Applicability of the lessons learnt across a broad spectrum could be disastrous and thus needs to be handled with utmost care.

Each participant in an international exercise keeps certain capabilities out of bounds for the exercise in order to retain operational independence. However, there are certain capabilities/deficiencies that come to fore during the exercise and become known to all participants. There is risk in the ability of the partner nation to withhold this information within its organisation as this information has low significance level. Any leakage to a nation/organisation inimical to one's own could result in a security compromise.

THE WAY FORWARD

International defence cooperation is an imperative for building our capabilities to deal with how we envisage our current and emerging role in the international arena.¹⁹ International military exercises are, thus, efficient tools to engage partnering nations and enhance existing relationships. These exercises actively support military diplomacy alongwith other aspects such as military training, port calls, delegation visits, and combat equipment support. Besides projecting Indian capabilities and enabling doctrinal learning, such exercises assist in benchmarking our capabilities against international standards.²⁰

The Indian armed forces must continue to hold international military exercises in India and also participate in similar exercises held in other countries. Although the number of countries India has engaged with (23 countries as of now) is good for a period of five years, notable absentees in the list are ROK, Germany, Myanmar, Vietnam, Egypt and Iran. Furthermore, the scope of engagement with our South Asian neighbours—Sri Lanka, Bangladesh, Afghanistan and Nepal—too needs a revision owing to the high probability of involvement of the Indian armed forces in these countries in case of HADR missions. Our engagement policy needs to be re-visited and, if required, the frequency of military exercises with certain countries reduced in order to engage a greater number of countries. The gains from engaging different countries would far outweigh repeated engagement with the same partners. Gradually, multiservice and multinational exercises with an enhanced scope need to be organised in India to make the entire process of military engagement more efficient.

APPENDIX

Table A1 List of International Military Exercises by Indian Armed Forces from 2012 onwards

<i>S. No.</i>	<i>Year</i>	<i>Forces</i>	<i>Exercise</i>	<i>Participants</i>	<i>Location</i>
1.	2012	IA	Bold Kurekshetra	Singapore	India
2.	2012	IA	Ekuverin-IV	Maldives	India
3.	2012	IA	Garuda Shakti-I ²¹	Indonesia	India
4.	2012	IA	Hariman Shakti	Malaysia	Malaysia
5.	2012	IN	IBSAMAR-III	Brazil, South Africa	South Africa
6.	2012	IA	INDRA-V	Russia	Russia
7.	2012	IN	INDRA-VI	Russia	Arabian Sea
8.	2012	IN	JIMEX-I	Japan	Japan
9.	2012	IAF	JMT	Singapore	India
10.	2012	IN	Konkan	UK	UK
11.	2012	IN	Malabar	US	Pacific Ocean
12.	2012	IA	Nomadic Elephant	Mongolia	India
13.	2012	IN	SIMBEX	Singapore	Bay of Bengal
14.	2012	IN	Varuna	France	Mediterranean Sea
15.	2012	IA	Yudh Abhyas	US	India
16.	2013	IA	Ajeya Warrior ²²	UK	India
17.	2013	IA	Bold Kurekshetra	Singapore	India
18.	2013	IAF	Eastern Bridge-III	Oman	Oman
19.	2013	IA	Garuda Shakti-II	Indonesia	Indonesia
20.	2013	IA	Hand-in-Hand-III ²³	China	China
21.	2013	IA	INDRA-VI	Russia	India
22.	2013	IN	JIMEX-II	Japan	Bay of Bengal
23.	2013	IN	Konkan	UK	Arabian Sea
24.	2013	IA	Limitiye	Seychelles	India
25.	2013	IN	Malabar	US	Bay of Bengal
26.	2013	IA	Mitra Shakti-I	Sri Lanka	India
27.	2013	IA	Nomadic Elephant	Mongolia	India
28.	2013	IA	SF	Poland	India
29.	2013	IA	SF	Tajikistan	India

<i>S. No.</i>	<i>Year</i>	<i>Forces</i>	<i>Exercise</i>	<i>Participants</i>	<i>Location</i>
30.	2013	IN	SIMBEX	Singapore	South China Sea
31.	2013	IN	SLINDEX	Sri Lanka	Bay of Bengal
32.	2013	IA	Surya Kiran	Nepal	India
33.	2014	IAF	Avia Indra-I	Russia	Russia
34.	2014	IAF	Avia Indra-II	Russia	India
35.	2014	IA	Bold Kurekshetra	Singapore	India
36.	2014	IA	Ekuverin-V	Maldives	Maldives
37.	2014	IA	Garuda Shakti-III	Indonesia	India
38.	2014	IAF	Garuda-V	France	India
39.	2014	IA	Hand-in-Hand-IV	China	India
40.	2014	IN	IBSAMAR-IV	Brazil, South Africa	South Africa
41.	2014	IA	INDRA-VII	Russia	Russia
42.	2014	IN	INDRA-VIII	Russia	Sea of Japan
43.	2014	IAF	JMT	Singapore	India
44.	2014	IN	KOMODO-I	Indonesia	Indonesia
45.	2014	IA	Maitree	Thailand	Thailand
46.	2014	IN	Malabar	US, Japan	Sea of Japan
47.	2014	IA	Mitra Shakti-II	Sri Lanka	Sri Lanka
48.	2014	IA	Nomadic Elephant	Mongolia	Mongolia
49.	2014	IN	RIMPAC	US	US
50.	2014	IA	Sampriti	Bangladesh	Bangladesh
51.	2014	IN	SIMBEX	Singapore	Andaman Sea
52.	2014	IA	Surya Kiran	Nepal	Nepal
53.	2014	IA	Yudh Abhyas	US	India
54.	2015	IA	Ajeya Warrior	UK	UK
55.	2015	IN	AUSINDEX-I	Australia	Bay of Bengal
56.	2015	IA	Ekuverin-VI	Maldives	India
57.	2015	IA	Hand-in-Hand-V ²⁴	China	China
58.	2015	IN	IFR	Japan	Japan
59.	2015	IAF	Indradhanush-IV	UK	UK
60.	2015	IA	INDRA-VIII	Russia	India
61.	2015	IAF	JMT	Singapore	India
62.	2015	IN	Konkan	UK	UK

<i>S. No.</i>	<i>Year</i>	<i>Forces</i>	<i>Exercise</i>	<i>Participants</i>	<i>Location</i>
63.	2015	IN	Malabar	US, Japan	Bay of Bengal
64.	2015	IA	Mitra Shakti-III	Sri Lanka	India
65.	2015	IA	Nomadic Elephant	Mongolia	India
66.	2015	IA	Sampriti	Bangladesh	India
67.	2015	IN	SIMBEX	Singapore	South China Sea
68.	2015	IN	SLINDEX	Sri Lanka	Arabian Sea
69.	2015	IA	Surya Kiran	Nepal	Nepal
70.	2015	IN	Varuna	France	Arabian Sea
71.	2015	IA	Yudh Abhyas ²⁵	US	US
72.	2015	IAF	Siam Bharat	Indonesia	India
73.	2016	IAF	Desert Eagle-II ²⁶	UAE	UAE
74.	2016	IA	Ekuverin ²⁷	Maldives	Maldives
75.	2016	IA	Garuda Shakti-IV	Indonesia	Indonesia
76.	2016	IA	Hand-in-Hand-IV ²⁸	China	India
77.	2016	IN	IBSAMAR-V	Brazil, South Africa	Arabian Sea
78.	2016	IN	INDRA-IX ²⁹	Russia	Bay of Bengal
79.	2016	IA	INDRA-VIII ³⁰	Russia	Russia
80.	2016	IAF	JMT	Singapore	India
81.	2016	IN	KOMODO-II ³¹	Indonesia	Indonesia
82.	2016	IN	Konkan ³²	UK	Arabian Sea
83.	2016	IA	Maitree ³³	Thailand	Thailand
84.	2016	IN	Malabar ³⁴	US, Japan	Pacific Ocean
85.	2016	IA	Mitra Shakti- IV ³⁵	Sri Lanka	Sri Lanka
86.	2016	IA	Nomadic Elephant ³⁶	Mongolia	Mongolia
87.	2016	IAF	Red Flag-16	US	US
88.	2016	IN	RIMPAC ³⁷	US	US
89.	2016	IA	Sampriti ³⁸	Bangladesh	Bangladesh
90.	2016	IN	SIMBEX ³⁹	Singapore	Bay of Bengal
91.	2016	IA	Yudh Abhyas ⁴⁰	US	India
92.	2017	IAF	Eastern Bridge-IV ⁴¹	Oman	India
93.	2017	IA	Surya Kiran ⁴²	Nepal	India

Source: Ministry of Defence, Government of India, *Annual Reports* (2011–12 to 2015–16).

Note: IA: Indian Army; IN: Indian Navy; IAF: Indian Air Force.

In addition, Indian Navy has carried out a number of PASSEX in this period during the overseas deployment of Indian naval ships or when foreign naval ships have transited close to Indian shores.

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