



February 2022 | Issue No. 3

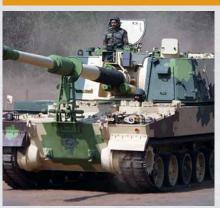


INDIA DEFENSE & SECURITY

The Insider View

A members only exclusive Newsletter





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BY CLAUDE SMADJA





PART A

Top Line

Naval Utility Helicopter (NUH) Program OEMs and potential Strategic Partners have been trying to shape the requirements for progressing the NUH program. As per the earlier Expressions of Interest (EOI) only private Indian companies were to qualify for participation in this program in partnership with foreign technology partners as the envisaged procurement of 111 NUH was under the Strategic Partnership model (SP Model). However, Hindustan Aeronautics Ltd (HAL), a government production house, has also strengthened its position to join the fray. Private industry is circumspect. Airbus, Sikorsky and ROSTEC (Rosoberonexport) are the main Foreign Original Equipment Manufacturer (FOEM) contenders whereas many private Indian companies have been preparing to become the Strategic Partners for the program. HAL has been approaching the MoD for participation in the program since 2019 when they responded to the Navy EOI and submitted two bids offering Rudra and Kamov helicopters. With the government nod for HAL participation in the program, the private industry has started questioning the relevance of the SP Model which was aimed to promote private industry. The whole exercise may potentially delay the procurement process of NUH.

Multi-Role Carrier Borne Fighter (MRCBF) program Indian Navy has been planning to procure 26 carrier-borne fighter aircrafts for their Indigenous aircraft carrier IAC-1. In 2017, Navy had issued an RFI for procurement of 57 such aircrafts, however, the requirement has been curtailed due to budgetary constraints and related issues. Rafale M of Dassault and F-18 E/F of Boeing are considered to be the top contenders for the deal. In January, Indian Navy conducted the deck landing trials of Rafale M at shore based facility at Goa. Boeing is also planning to conduct similar trials in March or April. After the trials, Navy is likely to analyse and compare the technical, commercial and availability related data of both the aircrafts with a view to recommend the best solution meeting their requirements. The case for approval of 'Acceptance of Necessity' (AON) by Defence Acquisition Council (DAC) will be processed before seeking firm proposal from the companies/ respective governments. The objective of this new approach is to speed up the acquisition process and expedite induction of aircrafts.





Privatization of Airports

The Government of India plans to privatize around 25 airports between 2022 to 2025 under the National Monetization Pipeline. There are plans to raise around \$3.0 Billion by monetizing these airports. The private industry is looking at potential business opportunities as the aviation sector is growing at exponential rate. The industry is eyeing at generating revenues from airport modernization programs including development of adjacent land into commercial activities. The airports of most of the major cities in India have already been privatized and the processes/ procedures are well settled to implement the upcoming modernization plans quickly. There are around 550 airports/airstrips in India and around 136 out of these airports are used for routine operations. With Air India (the government airline) being taken over by the Tata Group, all the airlines in India have been privatized. Privatization of airports will further reduce the bureaucratic interferences in the operations of airports and airlines.

Investigations of death of Chief of Defense Staff Indian Chief of Defence Staff, General Bipin Rawat died in Mi-17V5 helicopter of Air Force while going to attend an official function. Loss of high the first CDS of the country who was spearheading military modernization and policy reforms, was a major jolt to India. The investigations by the triservices committee was held and it was found that the accident happened due to unexpected change in weather conditions that led to spatial disorientation of the pilot resulting in Controlled Flight into Terrain (CFIT). CFIT is the term used to describe an aircraft impacting the ground while the pilot is in full control of the machine.

Deployment of S-400 Air Defence system India has received the first consignments of S-400 `Triumf' missiles and deployment of the operational assets have commenced closer to the Northern borders. The first battery is planned to be made operational in April 2022 and deliveries of the rest of the batteries are expected to be completed in 2023. The Russian officials have already started indicating the availability of S-500 'Prometei' missile systems for India in future. The Indian media has been highlighting the superior capabilities of Russian missiles and most of the military fraternity has been sensitized in support of the government decision to induct the system in the defense forces. It is interesting to note that China already holds S-400 in its inventory which has been deployed to provide air defense from the threats posed from Indian side.





Additional News

- The DefExpo 2022 is planned to be held at Gandhinagar in Gujarat. Though preparations
 have already commenced, final decision on the conduct will be taken shortly after review
 of the COVID situation. Hindustan Aeronautics Ltd (HAL), the nodal agency to coordinate
 related activities.
- The Defence Research and Development Organisation (DRDO) successfully flight tested the Man-Portable Anti-Tank Guided Missile (MPATGM).
- German Navy Chief Vice Admiral Kay-Achim Schönbach resigned over his comments on Ukraine, Crimea and Russia and consequent controversies during his visit to India.
- The Indian government imposed a penalty on MBDA for not competing offset obligations. Offset obligations were due for procurement of 36 Rafale aircrafts.
- MoD has scrapped the Coast Guard program to buy 14 twin-engine helicopters under Buy Global, for which the Airbus was the prime contender.
- India received the first batch of 70,000 rifles from Russia as part of a larger contract to manufacture the AK 203 assault rifles in India.
- On January 27, 2022 the Tata Group formally took over the reins of Air India, India's primary international airline. The Tata Group had won a bid to buy 100 percent stake in Air India along with AI Express and 50 percent stake in ground handling company AISATS in October 2021.
- India successfully test-fired a naval variant of the advanced supersonic BrahMos cruise missile from INS Vishakhapatnam, the stealth guided-missile destroyer of the Indian Navy.
- Ultra Electronics (UK) partnered with Mahindra Defence Systems Limited for the Integrated Anti-Submarine Warfare Defence Suite (IADS) program of the Indian Navy.
- India signed the deal with Philippines to sell three batteries of the BrahMos cruise missile jointly developed by India and Russia in a deal worth almost US \$375 million.
- India's state-owned Bharat Electronics Limited (BEL) and Hyperion have entered into a contract to develop, manufacture and supply Internet of Things (IoT) devices for the U.S. market.





PART B

Appointments

General **MM Naravane**, Chief of Army Staff, has been appointed as the Chairman of Chiefs of Staff Committee (CISC). The CISC plays an important role in all tri-services matters and functions under the Chief of Defence Staff. He is likely to play a key role in military acquisition matters, restructuring of the operational commands and inter-services policy related issues. The routine activities related to Department of Military Affairs (DMA) are being looked after by the Additional Secretary in coordination with the Defence Secretary till new CDS gets appointed.

Chairman, Chiefs of Staff Committee

Vikram Misri has taken over as the new deputy NSA. Mr Misri is an 1989 batch Indian Foreign Service officer and replaced Pankaj Saran who demitted office on December 31, 2021. Misri has worked in the prime minister's office before and is well versed with the strategic environment in Indo Pacific. Vikram Misri will report to Mr Ajit Doval, National Security Adviser. The other two deputy NSAs are Rajender Khanna and Datta Pandsalgikar.

Deputy National Security Advisor (NSA)

Pankaj Agrawal, Additional Secretary in Cabinet Secretariat has been appointed Additional Secretary and Director General (Acquisition) in Ministry of Defence as Mr VL Kantha Rao has been posted out and appointed Additional Secretary, Department of Telecommunications. DG Acquisition plays a major role in the policy formulation, procurement of military equipment and related aspects.

Additional
Secretary and
Director General
(Acquisition)

Los Angeles Mayor Eric Garcetti's nomination to serve as US Ambassador to India was confirmed by the Senate Foreign Relations Committee. After more than six months of Garcetti's nomination as Ambassador to India was announced by the White House, the Committee conducted the hearing. US Embassy at New Delhi has been awaiting nomination of ambassador for the last many months.

US Ambassador designate for India





Former Army Chief General **Bipin Rawat** was India's first CDS and took charge on 1 January 2020. After the unfortunate death of CDS, his replacement is yet to be finalised. Gen MM Naravane, Chief of Army Staff is already looking into tri-services matters as the chairman of the Chiefs of Staff Committee following Gen. Rawat's demise. He is in the forefront for appointment of CDS. His current tenure as COAS ends in April this year and Lt Gen Manoj Pande, Vice Chief of Army Staff is likely to succeed him as the Army Chief. As there are no challenges in the succession chain, Gen Naravane is being considered the most of suitable candidates as CDS.

Selection of Chief of Defence Staff (CDS)

Lt Gen Manoj Pande took over as Vice Chief of Army Staff as Lt Gen CP Mohanty superannuated on January 31. Lt Gen Pande is an alumnus of the National Defence Academy and was commissioned into the Corps of Engineers in December 1982. He is a graduate of Staff College, Camberley (United Kingdom) and attended the Higher Command Course at Army War College, Mhow at Indore in Madhya Pradesh and National Defence College (NDC) at Delhi. He will play a major role in the operational matters of Army including important policy issues on restructuring of commands, military modernisation and inter-service matters.

Vice Chief of Army Staff

Additional Appointments

- Lt General RP Kalita has been appointed as the new Eastern Army Command chief in Kolkata.
 He succeeded Lt Gen Manoj Pande who is moved to the Army Headquarters as the new Vice Chief of the Army.
- Lt General Upendra Dwivedi has been appointed as the new Northern Army Commander.
 He succeeded Lt Gen YK Joshi in Udhampur, Jammu and Kashmir.
- Lt Gen Anindya Sengupta took over as Corps Commander of 14 Corps popularly known as 'Fire and Fury' Corps.





PART C

Policy Updates

Integrated Capability Development Plan (ICDP)

he 10-year Integrated Capability Development Plan (ICDP) which would be the basis for all future procurement by the Services is currently being formulated. This plan will be quite different from Long Term Integrated Perspective Plan (LTIPP) which was considered to be lacking the required degree of synergy and collaboration between the services. HQ Integrated Defence Staff has sought inputs from the industry on their current and envisaged capabilities with the aim of including indigenous solutions in the perspective procurement programs. MoD is also keen to include those solutions in the plans which are still under development and are likely to reach the required maturity levels shortly. The ICDP would intricately link military capability to budgets, attempting to ensure budgetary commitment to plans. 5-Year Acquisition Plan and 2-Year Roll-On Acquisition Plan will be formulated based on the 10-year ICDP. Some of the Indian companies have established partnerships with foreign countries and started shaping requirements to promote jointly developed solutions by including them in ICDP.

Positive indigenisation list for Defense Production houses

assemblies/sub-assemblies/components as part of the efforts to achieve self-reliance in defence manufacturing and minimise imports by Defence Public Sector Undertakings (DPSUs). The list contains 2,500 imported items that have already been indigenised and 351 imported items which will be indigenised in next three years. Two positive indigenisation lists of weapons/platforms/systems/ammunitions etc have already been notified by the Department of Military Affairs, in order to provide impetus to self-reliance in defence manufacturing, as part of 'Self Reliance' concept. MoD believes that this will provide a good opportunity to the domestic industry to meet the basic requirements of the defence forces by producing solutions based on indigenously grown technologies or through partnerships with foreign technology partners. Such notifications are also intended to encourage the local industry especially MSMEs to explore the possibility of indigenising the components/ subsystems of the existing equipment being produced by the industry or held in the military inventory.





Discouragement to foreign solutions – 'Make in India' focus

here has been pressure on the MoD to curtail procurements from global suppliers and foreign governments. Some of the ongoing programs have also been reviewed with the aim of changing the procurement category from 'buy global' to align with make in India concept. During the past couple of meetings of Defense Acquisition Council (DAC), it was emphasised to downsize or foreclose some of the procurement programs which were in advance stages of approvals. In fact, DAC proposed to scrap some of the ongoing procurement such as helicopters for Indian Coast Guard, all-terrain vehicles (ATVs), and short range missiles etc. There is no change in the operational requirements of the customers, but the government wants the Indian companies to develop and produce such solutions in collaboration with foreign technology partners. This is bound to delay the military modernisation and lower the operational preparedness of the military. Some of the military experts opine that this approach may not be sustainable.

CAATSA Waivers

uring the last few months, there have been extensive discussions amongst the stake holders and media on the implications of sanctions against India if the provisions under Countering America's Adversaries Through Sanctions Act (CAATSA) are invoked. Keeping in mind the criticality of Indo-US relations amidst the growing concerns of Chinese expansionist designs in Indo-Pacific region, majority of the domain experts have been recommending to avoid CAATSA sanctions against India. US senators from Republican and Democratic parties have highlighted the importance of Indo-US relations and likely negative impact on the growing partnerships between both the democracies. Though the Biden administration has not taken a firm decision as yet, it is anticipated that both the governments will resolve the complex issues through continued mutual dialogue.





PART D

Tenders

EoI for Medium Range Precision Kill System Indian Army has issued an EoI for procurement of ten sets of Medium Range Precision Kill System (MRPKS) under 'Make II' category of DAP 2020. The product is required to be indigenously designed, developed and manufactured with minimum of 50 % Indigenous Content (IC) on cost basis of the total contract value. The desirous companies need to offer the prototype solution for trials and shortlisted companies will be given the production orders in phase 2. As most of the Indian companies don't have the indigenous solution, they will look for suitable foreign technology partners to jointly develop and offer the solution to India.

Light Tank

Last year, Indian Army had issued an RFI to procure approximately 350 light tanks. Many Indian companies have been trying to collaborate with foreign companies to offer the solution. Hanwha Defense has been aggressively promoting their K21-105 light tank as one of the potential candidate to meet the Army requirements. Russian companies have also been trying to offer solutions to satisfy Army needs.

Indian Army UGV Experiment 2021

Indian Army organised 'UGV Experiment 2021' at Babina Cantonment to encourage the Indian companies to demonstrate indigenous solutions to meet some of the Army's future requirements. Around ten Indian companies participated and demonstrated various kinds of Unmanned Ground Vehicles (UGV) which could be used for variety of applications such as Surveillance, Recce, Intelligence, Logistics, Casualty Evacuation etc. Some of the companies showcased weapon integrated solutions which may be used in counter insurgency and other hazardous operations. The intent of the Army is to encourage Indian industry to develop innovative and cost effect indigenous solutions to meet Army's requirements.





Twin Engine
Helicopter deal of
ICG

The ongoing procurement case for procurement of 14 twin-engine helicopters for Indian Coast Guard (ICG) has been foreclosed. Hindustan Aeronautics Limited (HAL) has been emphasizing that the indigenous naval utility helicopter (NUH) produced by them could fulfill the operational needs of the ICG. Therefore, Defense Acquisition Council took the decision to cancel the ongoing case in favor of HAL helicopter.

Future Ready
Combat Vehicles
(FRCVs)

Last year, Indian Army issued an RFI for procurement of around 1770 Future Ready Combat Vehicles (FRCVs). Many Indian private companies are exploring the possibility of partnership with foreign technology partners to develop the suitable solution to participate in the procurement program. In the meanwhile, Russian government has offered India to jointly develop a new battle tank based on its T-14 Armata platform. FRCVs are meant to replace the T-90 Bhishma and T-72 Ajeya tanks which are currently held in the inventory of Indian Army.

Self-Propelled Howitzers

Army HQs have commenced the process for repeat order of 200 additional 155mm tracked self-propelled howitzers. The procurement contract may be placed with Larsen & Toubro (L&T) which has made arrangements with Hanwha Defence of South Korea for production of K-9 Vajras in India. L&T was earlier awarded the contact for production of 100 K-9 self-propelled howitzers. L&T collaborated with Hanwa and jointly produced the howitzers at the manufacturing facilities of L&T at Hazira. This was considered as one of the most successful joint production arrangements to boost 'Make in India' concept. MoD intends to encourage the Indian industry to make similar arrangements for future procurement programs to enhance indigenous capabilities.





PART E

Thinking Forward

Opportunities for Foreign Technology Partners in 'Make in India' Initiatives

The objective of 'Make in India' initiative of the Indian government is to encourage indigenous development and production of military solutions to promote self-reliance. There have been sustained efforts on policy reforms, restructuring of the government production houses, promotion of indigenous R&D/ industry for military modernization. Continued reforms in Defense Acquisition Procedures (DAP-2020), support for Indigenous Design, Development & Manufacturing (IDDM), initiating major projects under Strategic Partnership model, notifying negative/ positive indigenization lists and incentives to private industry/ institutions are indicative of upcoming procurement trends. There has been gradual decrease in direct procurements from the global suppliers and foreign governments which has been necessitated due to government focus on reducing dependence on foreign countries and encouraging Indian industry to take the lead in offering suitable solutions to meet customer requirements. With changes in the procurement approach, foreign OEMs and technology holders need to make required changes in their respective business strategies to grow and sustain long term business in the Indian market.

Indian aerospace & defense industry is still in the nascent stage and it is very difficult for them to develop critical solutions without the support of technology partners. As Indian defence forces are looking for induction of a large number of platforms, equipment, sensors, weapons and integrated solutions, there are huge business opportunities for indigenous industry as well as foreign technology partners. The local industry cannot develop most of such solutions at their own and would look forward to forge partnerships for joint development and co-production of solutions to satisfy the operational needs of the customers. All the proposed development programs under SP model – Submarines (P751), Multi Role Fighter Aircraft (MRFA), Future Infantry Combat Vehicles (FICV) and Naval Utility Helicopters (NUH), future Ready Combat Vehicle (FRCV) etc. are multibillion dollar projects and need niche technologies to accomplish the mission. The critical analysis of most of the Expression of Interest (EOIs) and Request for Information (RFIs) for future





procurements issued by MoD indicates that Indian companies will seek partnership with technology companies to participate in such projects. Indian companies are finding it very difficult to qualify for most of the projects initiated under IDDM category without the support of technology partners.

In addition to be the technology partnerships with Indian companies, there may be other opportunities of growth for global players. The cost effective skilled technical manpower in India can help the industry to develop and produce affordable solutions for the global customers. The universities and training institutes are producing millions of IT savvy students on regular basis. The incubation hubs and R&D centers established by the academic institutions, industry, government organizations and entrepreneurs has the potential to develop innovative and unique solutions for the global market. Partnership with such entities may be quite beneficial for the global partners especially for developing and integrating next generation capability development such as 5G, Quantum Computing, IOTs, digital transformation etc. Demonstration of 1000 coordinated drones during beating retreat ceremony on 29 January is indicative of upcoming trend in technology development. Foreign Direct Investments, disinvestment of government production houses, corporatization of ordnance factories, privatization of MRO and service support etc. are other areas of potential business growth for the foreign companies. The government entities involved in supporting Armed Forces has huge infrastructure and existing facilities. The private Indian industry and global partners have huge potential for business growth by utilizing such assets to develop affordable solutions for the global customers. In order to continue the growth story, foreign OEMs and technology providers need to come up with innovative business models and novel partnership concepts to create win-win situation for domestic as well as the global industry.





PART F

A Specialist View

Military Cooperation and Interoperability

uch has been written about military cooperation and interoperability of the modern armies of the Western World, specifically amongst NATO signatories

and their fringe (NATO) allies. These nations being more developed and closely webbed display similarities and cross domain compatibility in almost all conceivable dimensions of military operations. While on the other hand the armies of the developing countries suffer from a plethora of dissimilarities and very sparse degree of professional harmony to count on joint man ship. Despite such glaring dichotomy between the two, the theoretical cardinals of cooperation and interoperability would encompass the same attributes universally, albeit, with varied degree of application.

Understanding Military Cooperation and Interoperability -

To understand military co-operation and interoperability it may appear pertinent to first establish the need for such an endeavour. There is no gainsaying that contemporary and futuristic war fighting or force employment is essentially a very complex multidisciplinary, multidimensional, cross domain activity involving almost every aspect of statecraft and politico - diplomatic resources of the Nation that decide or is forced to exercise the military option to settle an ensuing/emerging conflict.

The kinetic military option therefore, will depend upon the political goals of any nation state emanating from respective national interests and the need for physical security of it's geospatial assets. This essentially will call for synergizing of all tangible and nontangible resources at the command of the affected entity including force optimization. It is axiomatic that the economic and military resources of any nation are finite, limiting it's capability and war potential, directly restricting the options for resolution of a conflict. An open mind to political alliances, military cooperation, interoperability and synergy can lead to enhanced capabilities besides providing for greater combat potential at the point of decision in myriad dimensions. To that extent even a projection of a well jointed and optimally tailored interoperable force is likely to dispense the much needed deterrence against any misadventure by an overambitious state with expansionist design or trigger happy adversary for any kinetic military involvement, achieving the much desired preservation of peace and order, affording security and freedom towards unhindered economic activities.





Military cooperation and interoperability are closely meshed like the two sides of the same coin. Interoperability refers to *the ability of different military organizations to conduct joint operations*. It allows forces, units or systems to integrate and operate together. It requires them to share common doctrine and procedures, give access to allied entities infrastructure and bases, ability to communicate with each other and tolerant human nature to fit into the larger team.

Emergent Challenges -

Unlike in the past where nations settled conflicts through open wars, the contemporary world is witnessing different type of threats, covert and the silent wars enhancing the battle zones that no longer stand confined to definable boundaries but cascade into nontraditional spaces viz. the economic centers, infrastructure, sensitive space and human resources.

The foremost threat today is the **Grey Zone Operations**. In general, grey zone activities involve purposefully pursuing political objectives through carefully designed operations; moving cautiously towards goals rather than seeking decisive results quickly; acting to remain below key escalatory thresholds so as to avoid war in its classical sense using all instruments of national power. These can cause debilitating damage to world peace, catastrophic human losses and instill a sense of insecurity amongst the targeted masses. The threat is particularly severe through misuse of technology, freely available in the world market. Unfortunately no part of the globe is free from this malaise today. Following this is Defence of the Peaceful International Ecosystem so essential for unhindered land, sea and air movement, free trade, cultural exchanges and safeguarding the democratic values of independent sovereign nations and states. In this context China's surging investment in military power to relentlessly intimidate the world by asserting itself as a regional super power in Asia is a cause of much concern today. Next comes the Limited or Local Wars, which are localized short term or long term conflicts. The principal object is sovereignty over territorial control of disputed areas. The looming Russia - Ukraine crisis in Eastern Europe vis-a-vis. USA involvement is turning out to be an interesting situation to watch, with some NATO Allies feeling differently about the role of USA. Finally at the end of the spectrum is Full Scale War, a dangerous development which could involve two or more nations with serious consequences. The US War in Middle East, popularly called the Gulf War (1990-91), is an example of a protracted armed conflict by multinational coalition of 35 countries, led by the United States, to liberate Kuwait and invade Iraq.

These challenges may not necessarily be sequential. The overlapping or combination of one or more of these could add exponentially to the risk of a full fledged war between two or more Nations with a potential to turn into Regional / Global War.

Military Cooperation and Interoperability can be broadly classified into four levels, Strategic, Operational, Tactical and Technological. While the goal of each of these is to synergize and integrate capabilities to project and fight as one wholesome force, the nuances and degree of effort at each level would differ.





Understanding Relationship of Military Cooperation and Interoperability within Advanced States vis a vis the Under Developed/ Developing States

The envelope of similarly advanced states - These States are developed with matching equipment and technologies, training standards, operational concepts and their outlook. Their economic status allows for much flexibility and resilience to absorb the financial strain. Over the years NATO and its allies have developed a common platform bilaterally and multilaterally, and as a policy follow the concept that promotes interoperability. They believe in partner driven assets, consolidation of resources and integrated approach to cooperation and interoperability. To ensure high degree of preparedness, the entities have regular training exchanges, joint maneuvers, and promotional courses. It is their continuous effort to equip forces with same or matching hardware and software to facilitate interface. The two outstanding examples are the coming together of US 82 Airborne Division and United Kingdom 16th Airborne Brigade into a cohesive force structure, and the raising of 1 German/Netherlands Corps comprising of one German and one Dutch division.

Cooperation and Interoperability with dissimilarly advanced states - Afro-Asian countries are neither as developed as the Western Countries nor do they have a common platform for military cooperation and interoperability as a concept. There have been incidents of need based military cooperation of the NATO forces in Africa, Middle East and Afghanistan, which is not a regular feature. The political objectives, concept of operations, training standards, equipment, armament, and the existent technologies with the militaries are not only dissimilar to the Western world but also in large variance with in the sub continents, leaving little leeway for fast integration. In most instances the countries involved have been subordinate partners to Dominant Entity from the Western World and largely dependent on them for parity to a manageable level. One of the major obstacle in this direction is largely differing political ideologies and national aspirations.

In the Asian Continent, South East Asian States were first to realize the substantive advantages of regional cooperation. In August 1987, they took the initiative to form a regional organization - Association of Southeast Asian Nations (ASEAN). In September 2021 Australia, UK and USA formalized an Anglo Saxon alliance (AUKUS), a comprehensive military alliance, following which Australia has stationed US troops in Canberra, resorted to acquisition of similar equipment as USA and adhering to same philosophy. In response to increased Chinese economic and military aggression in the "Indo-Pacific" region, particularly in the South China Sea, the USA, Australia, Japan and India started a Quadrilateral Security Dialogue (colloquially QUAD) in 2007 to counter China militarily and diplomatically. It laid quiescent for 10 years and was revived in 2017. The dialogue was paralleled by the joint Military exercises of an unprecedented scale, titled Exercise Malabar, which has now become a regular feature.

Summary -

The Military cooperation and interoperability seemingly bring overbearing benefits as proven by most of the recent conflict situation. It helps in shaping strategic environment, increase capabilities, share responsibilities and provide local moral and physical support. The





ever increasing area of Grey Zone operations and the changing world order propensity to shift from Global Power Blocs to Regional Power Centres may give fillip to creating more geographical alliances and promote military cooperation and interoperability, even amongst the developing countries. The dictum that resources permitting, be prepared to act alone for the most advantageous course for any Nation, still holds true. But the burden of huge human and economic cost to a single nation may militate against this course of action. The downside of military cooperation and interoperability is fraught with risks of loosing alliance partners, high end technology armament and the compromising digital network, which need to be weighed vis - a - vis the benefits accrued out of coalition. The cost - benefit analysis of every situation may give different outputs. It would be up to political dispensation to weigh the parameters to take the final call.

Maj Gen (Retd.) Lakhwinder Singh YSM



Major-General Lakhwinder Singh served the Indian Army for 40 years with a wide range of combat and counterinsurgency experience. Well acclaimed for his unconventional approach and unique concept of employment of Artillery in the high altitude warfare in the 1999 Indo - Pak Kargil conflict.





PART G

A defense budget to kill three birds with one stone

he part devoted to defense expenditures in the 2022-2023 budget presented by Finance Minister Nirmala Sitharaman is fully in line with the coherent and strong message sent about India's will to move faster and more forcefully towards building a broader and higher end manufacturing and technological base, increasing self-reliance in strategic components of the equipment for the armed forces, and enhancing the modernization of its military machine to make it more able to meet the security challenges created by a volatile and uncertain global geopolitical environment.

While India devotes about 2% of its GDP to the defense budget, making it among the world's largest budget, its own economy benefits only in a minimal way from the money spent on the military hardware as the country has to import a major part of its equipment – it is the world's second-largest importer of defense equipment. Hence the emphasis put by the Modi government on pushing for self-reliance in the defense production.

The FY/23 reflects this priority as it not only increase the military budget by 9.7% on a year-on-year basis – the largest defense allocation increase in the recent years - but also sets the goal of allocating 68% of the capital procurement budget to the domestic industry as an implementation of the Make in India policy. A goal quite achievable, considering that in the fiscal year just ended the domestic industry got in fact 64% of the capital procurements, above the set target of 58%. This comes in parallel with the establishment of a "negative list" of military equipment which will be banned from import. These moves were applauded by the Society of Indian Defence Manufacturers (SIDM).

As importantly, a significant share of the R&D part in the military budget – 25% - will go for the first time to startups, academia, and private entities. Here again, the will to leverage much more systematically the national technological innovation capabilities comes up quite clearly, also expressed in initiatives such as the creation of "Innovations for Defense Excellence" which, according to its official mandate, aims at "the creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Industries including MSMEs, startups, individual innovators, R&D institutes & academia ».

In that respect, it is worth noting that, beyond the specific elements in the defense budget, the overall budget presented by the Finance Minister shows a clear will to promote very actively the leveraging of disruptive technologies such as artificial intelligence and drone technology to accelerate the digitalization of India's economy and society and streamline processes in all sectors. This should have a booster and multiplier impact on enhancing all activities related to the defense sector. So, the new budget is aiming at killing three birds with one stone: However, one key question remains whether the domestic industry will be able to develop fast enough its technological capabilities in





order to fully assume the role that the budget is assigning to it. It is mostly in the design and development of military platforms that the private sector is expected to play an even larger role

The push for military modernization comes at a crucial moment in the evolution of the geopolitical landscape, the re-assessment of the military and security risks that the country needs to be ready to address and the definition of a more ambitious role for the country on the international scene.

At this stage, all the three elements of the Indian military – Army, Navy and Air Force – are in the process of restructuring themselves in terms of organization and Modus Operandi, of modernizing equipment which became obsolete already quite a few years ago, such as the MiG 21 in the Air Force inventory, or the locally made Arjun Tank for the army, and in terms of a new warfare doctrine more adapted to the present conditions. In fact, what has been taking place in the last few years – and accelerated in the aftermath of the 2020 India-China clash along the Line of Actual Control in Ladakh – is an emergency, across the board, program of the Indian defense apparatus.

There are however limits in terms of the ability to compress the catching up process and – in that respect it will be a long time before the Indian navy and air force can be a real match by themselves to, say, Chinese capabilities in these domains. Accentuating the effort towards a comprehensive implementation of the Make in India policy and mobilizing more efficiently the innovative capabilities of the private sector will not, for the foreseeable future, allow India to do without the contribution of foreign defense suppliers. But this will definitely bring the country closer to its goal to become in the medium term a significant player in the global defense/military landscape. In that respect, the signing on 28 January of a US\$ 375 million deal for the sale to the Philippines of a batch of the BrahMos anti-ship missile system, already in use for the Indian air force navy and army, is a milestone not to be missed.

Claude Smadja President Smadja & Smadja Strategic Advisory Former Managing Director of the World Economic Forum



Claude Smadja created Smadja & Smadja, Strategic Advisory, in June 2001. The firm works with global corporations and government entities on global trends and strategic issues. In addition to these activities the Firm creates and manages strategic seminars and high-profile international conferences in different parts of the world.

Before creating Smadja & Smadja, Claude Smadja has been involved with the World Economic Forum altogether for 14 years first as a member of the Executive Board and then as the Managing Director of the organization from 1995 to 2001.

