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Defence Manufacturing-II: Maruti model can drive defence production

By Ajay Shankar

In the second and concluding article, The Tribune examines the need to do away with historical legacies and well-worn procedures as well as develop the fortitude to accept setbacks. Only a radical departure from all past practices may have the potential to help defence manufacturing stand on its feet.

Strategic dilemma

- *The government has taken a leap into the unknown with the strategic partnership model.*
- *Hard-headed questions are: Is corporatisation a panacea for OFBs and Defence PSUs?*
- *What safeguards are required for non-performance by chosen strategic partners?*
- *Which foreign firm should be chosen — with declining defence budgets in their countries or well-known giants?*
- *Maruti's emergence should be a model. It requires a different paradigm of decision making.*

The natural expectation is that government should do what it takes to achieve a breakthrough in defence manufacturing. Every new political executive discovers the strength of tradition and of the constituencies in favour of the status quo, as well as the inherently conservative nature of all bureaucracies which are comfortable only with incremental changes. Fortunately, a strong government enjoying continuing popular support with a growing nationalistic fervour should be able to take big decisions and implement them. There are complex issues to grapple with and difficult decisions to be taken.

In most technology and capital-intensive segments only one national entity can be supported to become strong enough to give autonomous capability. In the case of Europe, countries chose to consolidate their national air industries in European Aeronautic Defence and Space Company (EADS). After many years and considerable public spending, EADS succeeded in developing a real competitor to Boeing in the Airbus. In the Eurofighter, they developed a world-class military plane.

Hence, taking a clear view of the optimal industry structure 10 to 15 years down the road and the future of the present set of ordnance factories and the defence PSUs in different segments is unavoidable. Since the economic reform process began, large PSUs have ceded space to new private sector entrants and become white elephants where now they can neither be privatised as they have no value, nor can they be closed because of the large workforce. Air India and BSNL are good examples. Is it desirable to replicate this? Is corporatisation of ordnance factories doable? Is greater professionalization and empowerment along with gradual disinvestment to create, say, an equivalent of Boeing/Dassault in HAL, an option worth pursuing? Is strategic divestment to suitable Indian private firms with proven manufacturing ability a viable option and, if so, in which segments? Would having private strategic partners for a few platforms while leaving the rest of the system untouched, as seems to be under way now, the best way to go forward? Would it not be prudent to choose strategic partners only with proven manufacturing abilities, or, this is not relevant if there is sufficient financial depth? What safeguards, if any, are required in the eventuality of non-performance by chosen strategic partners? There are no easy answers. Taking a hard-headed view on these questions is necessary and is the intrinsic burden of leadership.

The implication of having private sector entry and at the same time continuing with the public sector for the same platforms needs to be thought through. To illustrate, having many aircraft and helicopter manufacturing facilities, where only final assembly, controlled by foreign technology providers, is undertaken in India,

without any real technological ability to develop new models growing in one organisation to become a world-class national player, would not serve the real purpose. There may be some less capital-intensive segments where genuine competition over time may be feasible and desirable. A rational calculated view needs to be taken on weapon systems where India should try and have one world-class player and where it can afford two players. This is equally relevant for sub-assemblies and components which are the actual building blocks and usually do not get the attention they deserve.

Then, there is the widely prevalent view in the Armed Forces that the DRDO has not yet given them weapons that they would really like to use whether it is the LCA or the battle tank. In any case, whatever has been developed is an assembly of primarily imported engines, sub systems and parts. So, does it make sense to write off whatever has been done and accept failure? Or, is the ability to design and develop a weapon platform even with imported sub-systems, not a significant enough achievement which should give confidence that succeeding rounds of development of newer versions are bound to be better? Does it not then make sense to continue from what has been achieved and see what more is needed to produce newer versions which appear good enough to the armed forces? Should such development not be funded and undertaken continuously to develop systems which may be equivalent to what is being used by the forces now and as a potential supplement, in the first instance? Is the present system of having a centralised DRDO responsible for technology and system development with production enterprises making only modest efforts in research and development, optimal? Or, having different verticals with responsibility for both platform development and production, as is the case with all western defence firms, a better model with the advantages of clear focus, accountability, incentives and rewards? Could not the successful experience of ISRO and Atomic Energy of working in genuine development partnerships with Indian firms to develop almost all that they needed to overcome the handicap of the international technology denial regime be replicated? Should PPPs in system and technology development as well as manufacturing be pursued? Could the armed forces moderate their expectations by lowering the bar to have, not the best in class in the world, but what is good enough for what our northern and western neighbours possess? (From this perspective, many have argued that even the present LCA is good enough.) Willingness to lower the bar also increases competition as well as the ability to seek a higher degree of technology transfer for new systems needed now and which have to be necessarily procured internationally. Since the procurement system is tied to procedure and paranoid about any deviation from what is set out in the beginning, negotiating the best terms for technology transfer is not permitted. As a result, India is unable to even begin making full use of the window of opportunity which is now there, with the US making India a major defence partner for technology transfer. Every procurement process should have the objectives of getting what the forces need and maximise national technological ability and reduce future import dependence.

A good Indian experience to recall is that of Maruti. Through a search and negotiation process, Suzuki was chosen as the technology and equity partner. A smaller player, it was willing to go the farthest in technology transfer and genuine partnership. Maruti selected vendors in a fair manner very quickly, but not through the rigid price-bidding process the only permissible route today. Vendors were helped with technology tie-ups and became long-term partners and suppliers with periodic negotiated price revisions. Maruti, like other global car companies, undertook only final assembly. The outcome exceeded expectations. India was able to evolve a globally competitive private sector national auto-component industry. It is now a leading global hub for competitive small car manufacturing. On the international scene many firms, with frontline platforms, critical sub-assemblies, or materials/components, do not see much of a commercial future with declining defence budgets in their countries. They may be willing to part with technology, go in for genuine joint-venture partnerships, and even be available for acquisition — presenting an opportunity for technological leapfrogging. An empowered, bold leadership, acting strategically to create medium-term national capabilities is required to take a holistic view of procurement for specific needs, along with technology development and acquisition. An altogether different paradigm of decision making needs to be put in place. Without this, it is unlikely to make progress in defence manufacturing at the speed that is needed and also possible. (Concluded)

Jaitley confident of military preparedness

India's military preparedness is the best deterrent, which will guarantee peace in the region, and it must significantly ramp up defence production keeping in mind geo-political dynamics, Defence Minister Arun Jaitley said on Tuesday. He said defence PSUs and private sector can have a healthy competition to develop military platforms and weapon systems, asserting that India must not rely heavily on imports.

In an oblique reference to Pakistan, Jaitley said security requirements are dictated by the kind of neighborhood India has. "Obviously, in view of the peculiar situation from geo-political point of view where we are located, our preparedness is the best deterrent and which is certainly a guarantee for peace as far as our region is concerned," he said. He was speaking at an event where some of the defence public sector undertakings (DPSUs) were given Raksha Mantri's awards for their performance in 2014-15 and 2015-16. "No country can indefinitely win wars and battles on the strength of trying to buy and import equipment from outside. Its security preparedness would be incomplete if it relies only on that," Jaitley said.

The defence minister referred to the strategic partnership model for involving leading domestic private sector firms along with foreign entities for defence production and said it will encourage defence manufacturing in the country. Under the strategic partnership model, Government plans to rope in select private firms to build military platforms like submarines and fighter jets in India in partnership with foreign entities. It aims to create a vibrant defence manufacturing ecosystem in the country through involvement of both the major Indian corporates as well as the MSME sector.

There is no reason why we cannot become a force to reckon with (in defence production)," he said. Talking about the economy, Jaitley said it has been logging impressive growth in the last three years. "Having completed seven decades after Independence, we have now for three years in a row achieved the distinction of being the fastest growing global economy among the major economies. We aspire to evolve from a developing economy to a developed economy," he said. Jaitley said India must expand its manufacturing sector to create job opportunities on a mass scale.



No more human shields, Army quietly tells officers

Dehradun Serving Army officers, some of them still in Kashmir and a few just back, have told TOI that though Major Leetul Gogoi, who used a human shield during the April 9 Srinagar Lok Sabha by-poll, was commended by Army chief Bipin Rawat "for sustained efforts in counter-insurgency operations" in J&K, the word that has quietly gone out to officers is not to follow such measures.

Officers posted in the Valley have also been asked to work on bettering relations with local residents rather than resorting to such actions.

A few of the serving officers who have seen action in Kashmir said that though the Army has always given importance to building better relations with locals, it has become all the more important after Gogoi's action. "Personally, I think it wasn't correct, but since I was not at the place of the incident, I don't know what was going on in the officer's mind. Although he has been feted for his action, a subtle message has been passed in various Army formations operating in J&K to not follow his example. We have been asked to focus more on bettering relations with locals rather than taking such measures," said an Army Major who recently got posted out of Kashmir.

Another serving Major, on the condition of anonymity, said, “There is a famous saying in the Valley - ‘Jawan aur awam, aman hai mukaam’ -which translates into ‘good relationship between the Army and natives will bring peace here’. Even in my regiment, we were told not to replicate what has been done by Gogoi and instead focus our energies on making relations with the locals more cordial.”

Answering TOI's query on the story, Col Manish Anand, PRO, Indian Army, said, “As an organisation, the Indian Army does not have to pass any orders that says in future no officer should take the same action as Major Gogoi, it's something which is done by the local

Army formation. Also, as the Army chief has explained, the officer did what he had to do to prevent chaos. However, it's an understood thing that this is not something which will become a common sight or a habit among other officers. The incident was an isolated one and the situation demanded it.”

Another officer currently serving in J&K said, “We are definitely not propagating using civilians as human shields and even if no official word is given, we are all aware that good relations with locals are important in any counter-insurgency operation areas.”

Senior retired officers said the action taken by Gogoi might encourage other officers to “improvise likewise” but the results may not always be positive and it is breaking away from disciplinary norms of defence forces.



Wed, 31 May, 2017

‘Made-in-India arms will help us win wars’

India's military preparedness, which has to be fully backed by indigenous manufacture of weapon systems and platforms through a healthy competition between the public and private sectors, is the best deterrent to guarantee peace in the region.

“No country can indefinitely win wars and battles only on the strength of trying to buy or import equipment from outside. Its security preparedness would be incomplete if it relies only on that,” said defence minister Arun Jaitley on Tuesday.

Speaking at an awards function for defence PSUs, in the backdrop of the government recently finalising the “strategic partnership (SP)” policy to expand the Indian private sector's role in defence production, Jaitley stressed the need for India to “unleash its own potential” to become an arms-manufacturing hub.

Under the SP policy, selected Indian private sector companies will partner with global armament companies to jointly manufacture fighter jets, helicopters, submarines and armoured vehicles like tanks under the “Make in India” framework.

Sloppy performance by the DRDO and its 50 labs, five defence PSUs, four shipyards, and the 41 ordnance factories as well as the failure to attract the private sector to jump into defence production in a major way has meant that India still continues to import around 65% of its military hardware and software.

“Security requirements are dictated by the kind of neighbourhood you have, and obviously in view of the peculiar situation here from a geopolitical point of view, our preparedness is the best deterrent and which is a guarantee for peace as far as our region is concerned,” said Jaitley. He said, “Healthy competition between defence PSUs and private sector will bring out the best potential. Competition is always the best guarantee for competence, efficiency, and price control.

“Turning to the economy, Jaitley said it has been logging impressive growth over last three years. “Having completed seven decades after Independence, we have now for three years in a row achieved the distinction of being the fastest growing global economy among the major economies,” he said.

Weaponising Defence Buying

The Cabinet Committee on Security of GoI recently cleared the Strategic Partnership (SP) model for defence acquisitions. This essentially allows for joint ventures between Indian and foreign firms for defence manufacturing in India. This has been pending for more than a year after the revised Defence Procurement Procedure (DPP) was announced in March 2016.

Much of the changes to the DPP were based on the 27 recommendations of the Dhirendra Singh Committee Report submitted in July 2015. The committee had also recommended the SP model for certain areas of strategic importance. Later, the task force under former Defence Research and Development Organisation (DRDO) chief V K Aatre laid down the criteria for selecting SPs among Indian private sector companies that was made public in April 2016.

Over the years, all defence procurements were based on general staff quality requirements that allowed widely spread technical criteria, and then selection by the lowest price (L1) after necessary technical evaluation. The adherence to procurement guidelines strictly based on fair play and probity -and set under the guidelines of the Central Vigilance Commission (CVC) -often led to system acquisition. This was not necessarily the best deal, in terms of state-of-the-art and modern technical aspects in the long procurement cycle.

Also, indigenous capacity-building in most areas was never brought into focus. This resulted in continuing foreign acquisitions due to operational necessities. So, almost 30 years were frittered away, despite policy and intent to reduce defence imports.

So far, only four segments have been chosen to set the SP model rolling: single-engine fighter aircraft, helicopters, armoured fighting vehicles and submarines. In all these four segments, some level of collaboration exists, with Indian entities -mostly public sector undertakings (PSUs), ordnance factories and shipyards - partnering an original equipment manufacturer (OEM) as a serial manufacturer or providing its premises for such manufacturing.

However, the intent of the Narendra Modi government is very clear as to its focus on 'Make in India' with defence as a major focus area. Also, the intent of the SP model is to clearly establish the base, have the supply chain system established, and imbibe in the latest technology for these equipments and systems. So, the focus on matching and mapping respective OEMs to Indian private sector players should be defined with the extent of technology available to build a modern and robust system.

While the platform-based approach might be a natural start with the absence of significant success via the DRDO or defence PSU route, the larger advantage of the SP model is to leverage the strengths that are residual in Indian industry and look at more futuristic areas in the system as well as subsystem stage. This way, optimal capacity-building would be possible in many areas. A case in point is the competence of Indian engineers in IT-based systems. With most platforms today performing under a Command, Control, Communications, Computers and Intelligence (C4I)-based tactical approach, focus on C4I systems integration can be very pertinent. Future warfare will be more around electronic approaches and focusing to complete the Tactical Command, Control, Communication and Intelligence (Tac3I) with superior competency.

Picking cyber security as a first-phase strategic area would have been more optimal today. As an increasing number of countries build cyber arsenals and treat this as a future battlefield, India's competence and advantage in the sector can be put to advantageous use.

Most of the OEMs in the fray in the SP projects have already focused and built their competency in technology aspects under various guises of C4I. It would be wise to involve them to orient our interests on these technologies, and at the same time, incorporate India's indigenous encryption. This way, it can be ensured that mandatory national security checks are always adhered to.

‘Private sector key to defence’

Jaitley says strategic partnership policy will open up manufacturing to private players

In order to build the country’s domestic defence manufacturing base, Defence Public Sector Undertakings (DPSUs) will have to compete with the private sector which is being promoted in a big way, Defence Minister Arun Jaitley said on Tuesday.

“The emphasis is to use our entire potential as a country to expand rapidly and therefore the policies are also being liberalised to allow a fair competition between the DPSUs and the private sector... A healthy competition between the two will certainly bring out the best potential in both the areas,” Mr. Jaitley said, after giving away the Defence Minister’s awards for excellence to DPSUs.

He said the recent policy on Strategic Partnerships approved by the Defence Ministry “factors in both these contents” sending a clear message to the DPSUs that they need to improve efficiency and capabilities.

The Strategic Partnership policy which is part of the Defence Procurement Procedure intends to open up manufacturing of four major defence platforms for the Indian private sector. “The capacity of the DPSUs and their order profiles will also be taken into consideration...we also need to explore larger defence manufacturing with private sector participation,” he stated.

Minesweeper deal to be inked soon

By Dinakar Peri

India and South Korea ready to finalise pact for 12 mine detectors for the Navy

After repeated delays and protracted negotiations, India and South Korea are set to be close to finalising the deal for 12 minesweepers for the Indian Navy.

“Commercial negotiations are in the final stages and should be concluded in the next two months. The technical negotiations have long been completed which also involves the Indian Navy,” a defence source said on Tuesday.

Discussions are underway between Goa Shipyard Limited, which has been nominated as the yard for construction by the government, and Kongsang Corporation of South Korea. The GSL has already created necessary infrastructure and facilities to build the vessels.

The deal for 12 minesweepers or Mine Counter Measure Vessels is worth about ₹ 32,640 crore and the ships would be manufactured in India under Transfer of Technology. The first ship is expected to be delivered three years after the contract is signed. Minesweepers are crucial to detect mines and explosives planted by the enemy targeting our ships as they enter or leave harbours.

The Navy is presently left with four ageing minesweepers which will be retired by 2018 end. However, efforts to procure new MCMVs have been repeatedly delayed.

The Acceptance of Necessity for construction of 12 new MCMVs was approved by the Defence Acquisition Council on February 28, 2015 on nomination basis to GSL.

Pricing issues delay deal - The Kongsang Corporation was eventually shortlisted as the foreign OEM, but the final deal was still delayed due to pricing and technology issues. The deal is expected to go beyond 12 as the Navy is keen to order additional ships once the original order is fulfilled.

S Korea president orders probe into deployment of new THAAD missiles

**HEEKYONG YANG &
JU-MIN PARK**
SEOUL, MAY 30

SOUTH KOREAN President Moon Jae-in has ordered a probe after the Defence Ministry failed to inform him that four more launchers for the controversial US THAAD anti-missile system had been brought into the country, his spokesman said on Tuesday.

The Terminal High Altitude Area Defense (THAAD) system battery was initially deployed in March in the southeastern region of Seongju with just two of its maximum load of six launchers to counter a growing North Korean missile threat.

During his successful campaign for the May 9 presidential election, Moon called for a parliamentary review of the system, whose deployment has also infuriated China, North Korea's lone major ally. "President Moon said it was very shocking" to hear the four additional launchers had been installed without being reported to the new government or to the public, a presidential spokesman said.

Moon had campaigned on a more moderate approach to Pyongyang, calling for engagement even as the reclusive state pursues nuclear weapons in defiance of UN Security Council resolutions and threats of more sanctions. **REUTERS**

The Statesman
PEOPLE'S PARLIAMENT, ALWAYS IN SESSION

Ballistic missile test successful: N Korea

Leader Kim Jong-un observed the test-firing of a precision-guided ballistic rocket capable of making ultra-precision strike, state media reported

North Korea on Tuesday announced that it succeeded in the latest launch of a ballistic missile, which it said features a new high-precision guidance system and a quick launch process, according to state media reports. Leader Kim Jong-un observed the test-firing of a "precision-guided ballistic rocket capable of making ultra-precision strike," the Korean Central News Agency (KCNA) said.

"The ballistic rocket flew toward the east sky where the day broke and correctly hit a planned target point with deviation of seven meters after flying over the middle shooting range," Yonhap News Agency quoted KCNA as saying. North Korea launched a Scud-type short-range missile on Monday from the vicinity of Wonsan along the east coast that flew around 450 km at an apogee of some 120 km, according to the South Korean and US militaries. The KCNA reported the test-launch "verified the flying stability of the missile loaded with the warhead with control wings in the active flying section."

Pyongyang also verified "ultra-precision guidance correctness in the reentry section". Inspecting the launch, Kim compared the missile to a "sniper's rifle" for its capability of striking targets both on the ground and at sea including enemies' warships. He also expressed satisfaction with the "automated launching preparation process" for a speedier missile launch. Kim was quoted as ordering the "continued development of more powerful strategic weapons" based on the success.

The new missile was unveiled at a massive military parade held in Pyongyang in April to commemorate the birth anniversary of the late founding leader Kim Il-sung. Monday's missile test, the third in three weeks, again provoked the international community's condemnation. This launch came just after G7 leaders met this weekend in Italy, where they urged North Korea to "abandon all its ballistic and nuclear missile programmes in a complete, verifiable and irreversible manner".

दैनिक जागरण

Wed, 31 May, 2017



अब सूर्य को छुएगी नासा

1.54 अरब डॉलर	1400 डिग्री से.	2018
परियोजना की लागत	सूर्य का तापमान	में मिशन होगा शुरू

अत्याधुनिक शोध यान
शोध यान का द्रजन 610 किग्रा है और यह 1,370 डिग्री तापमान बर्दाश्त करने में सक्षम है। यह सूर्य से निकलने वाले विकिरण और तरंगों का भी सामना कर सकता है।

कोरोना में रखेगा कदम
शोधयान को सूर्य की सतह से 40 लाख मील की दूरी के अंदर ही स्थापित किया जाएगा। सूर्य को घेरने वाले इस हिस्से को कोरोना के नाम से भी जाना जाता है। यह सूर्य का बाहरी वातावरण है।



चांद्र, मंगल, बृहस्पति, शनि और अन्य सुदूर ग्रहों तक शोध यान भेज चुकी अमेरिकी अंतरिक्ष एजेंसी नासा अब एक और उपलब्धि हासिल करने की ओर है। वह आज यानी बुधवार को विश्व के पहले सौर अभियान की आधिकारिक घोषणा करने जा रही है। सोलर प्रोब प्लस नामक इस अभियान के तहत एजेंसी एक शोध यान भेजकर सूर्य के वातावरण और उसकी संरचना का अध्ययन करेगी। सूर्य के वातावरण में जाने वाला दुनिया का यह पहला शोध यान अगले साल अगस्त में अपना सफर शुरू करेगा।

वातावरण में होने वाले बदलावों पर होगी नजर
शोध यान सूर्य के बाहरी वातावरण का अध्ययन कर यह पता लगाएगा कि आखिर यह काम कैसे करते हैं। साथ ही यह भी देखा जाएगा कि इसके वातावरण में होने वाले बदलावों का धरती और अंतरिक्ष में क्या असर पड़ता है।

पहले भी भेजे शोध यान
सूर्य के बारे में जानकारी हासिल करने के लिए 1974 और 1976 में नासा ने हीलियोज-1 और हीलियोज-2 नाम के शोधयान भेजे थे। इन्हें हीलियोसेंट्रिक ऑर्बिट में स्थापित किया गया था। हमारी आकाशगंगा की यह वो ऑर्बिट है जो सूर्य के सबसे करीब से गुजरती है।

