

DEFENCE BUDGET: BUILDING THE CAPABILITY EDGE

By Lt Gen N B Singh, Veteran

Lt Gen (Dr) N B Singh, PVSM, AVSM, VSM, ADC is a former DGEME, DGIS and Member Armed Forces Tribunal. Views expressed are his own.



The recent budget has seen a significant increase in Govt capex; the highest ever spend on roads, railways, education and healthcare. The share of Defence is 30%, out of the total allotment of 1.35 lakh crores, the share of Air force is 42.5%, Army 29% and the Navy 28.5%. Many have hailed it as a budget of self reliant India that will modernize the armed forces and provide the capability edge to defend its sovereignty across multiple fronts. There is a need to truly indigenize, since defence acquisitions are expensive. Take the recent order of 83 Tejas aircraft, it costs upwards of 500 crores and some reports state that its import content is around 52%, comprising mission critical systems that drive combat readiness.

Modern day complex systems like tanks and aircraft have a service life of four to five decades. The Sabres had a life cycle of 17 years as compared to 4 decades for the F15/16 aircraft which are still going strong. The M1Abrams and T72 are already 40 years old and still in the inventory of many countries. While major defence equipment manufacturers like US, Russia, China or EU may not face major issues in keeping such systems mission capable, in our context sustaining readiness comes at a huge cost and operational availabilities remain remain an issue of concern. Hence a long term approach maximizing integration of locally developed and manufactured sub systems, is the key to sustaining readiness, as well as for taking forward Atma Nirbhar Bharat. This calls for a locally robust and reliable supply chain and Govt investment in a host of programmes on the lines of Tejas.

A prime reason for the country remaining the largest importer of arms has been the absence of a systems view and a penchant for siloed working by military, DRDO, OFB, DPSUs and MOD. Siloed working can lead to collective tragedy even if every head of department takes the most preferred course. It is like creating a system of parallel tunnels, every one digs deeper in his domain little realizing that the solution lies elsewhere. A rising super power topping the list of importers of defence equipment despite a well evolved industrial base and brilliant human resource is a national tragedy. What then is the way out? In my opinion there is a dire need for a cultural shift in the way defence acquisitions are handled. Higher Defence leadership needs to develop a wide angled systems view and evolve a capability centered strategic plan say for 10-15 years, setting the True North. A knowledge powerhouse has to lead, ensuring that the course gets adopted without any drifts.

There are several self inflicted capability gaps; blind spots and vulnerabilities in our operational preparedness as a consequence of the do nothing syndrome--- delayed acquisitions, ageing inventory, wrong choices made. All future acquisitions should aim to fill not only operational capability gaps but also industrial capability gaps. This will help optimize life cycle costs(cradle to grave) estimated to be around 3 to 3.5 times the cost of acquisition.

The record of defence manufacturing in the public sector has not been very encouraging. In case of licenced production there was no record of the extent of absorption of technology by anyone except the production unit. Half baked indigenization was attempted, sole aim being to complete deliveries and obtain payments. **Even after 15 to 20 years of manufacturing in India it is disheartening to see a fair number of systems and components either on the import list or where indigenized giving engineering life of about 50% or less. If an aircraft or tank engine gives limited life it ends up spiking life cycle costs as more replacements get procured.** Quality, costs and time overruns have become a hallmark of licenced production. **If this continues with Tejas, it can spell doom for the Proudly Made in India brand. If our own armed forces complain about quality, reliability, misfires and accidents, other countries would back out, detrimentally impacting exports.**

HAL's saga of manufacturing and aircraft maintenance has been roller coaster like. It had remarkable success in the initial years with the production of HT-2, HJT-16 Kiran jet trainer which saw over four decades of usage with Airforce. Similarly, the HF-24 Marut fighter saw action at Longewala in the 19 71 war. However, these early successes could not be consolidated and thus began a down slide which has seen several lows like reliability issues with the Hawk AJT and fleet readiness issues with Sukhoi-30 MKI. In case of Rafale, Dassault Aviation had expressed its inability to stand guarantee for product quality for the aircraft that were to be indigenously manufactured by HAL as a part of the 126 aircraft deal that was under consideration earlier.

The current order of 83 Tejas is a golden opportunity for the aerospace giant to restore its organizational temper of yester years. Alongside, is a national responsibility to give Atma Nirbhar Bharat an aura of invincibility that will boost user confidence and exports? All what is needed is a renewal of its work culture, engineering ethos and a collaborative deployment of skills and competencies with the private industry.

Some analysts have opined that the current allocation of 1. 35 lakh crores may not be sufficient to cover even committed liabilities and that the northern neighbour spends three times as much. It may be prudent to leave the issue of budget management to the MOD which has ample means to do so. The military needs to focus on critical capability gaps and identify means to address the same. Resources can always be found as was done during the current fiscal. Seeking parity in numbers is neither necessary nor advisable. Being strong enough and fast enough by developing a resilient composite capability, that not only responds to future capability surprises but is able to deliver own surprises preemptively is what needs to be incubated and honed.

An Obfuscation Campaigns

By Ratul Chakraborty

Author is BE in Computers and presently he is Director of Design at Zynga, Hyderabad. He is an avid traveller, a street portraiture photographer. He has also written books on key episodes of history. This 36-year-old has touched many minds with his writings.

An obfuscation campaign is currently underway to give intellectual cover to assorted foreign supported regime change agents. In this thread I will try to explain why these toolkit creating agents of chaos are, in fact, committing sedition against the sovereign Indian nation state. In order to understand the present, we have to understand how the nature of warfare itself has changed over time. Without this one will not realize the false contrast being created between "peaceful activists" and the state.

Many years ago, battles were messy affairs between massed troops on either side indulging in wholesale slaughter. This is commonly referred to as first generation warfare. Mahabharata, Alexander, Hannibal etc were all example of this. This is the classical image of war.

With the advent of gunpowder, things changed. Specific gunpowder related tactics evolved that could crush non gunpowder armies on the field. The Japanese warlord Nobunaga as well as the European armies of 30 years war developed what we call second generation warfare. Napoleonic armies were probably the most refined example of second-generation warfare. In India, the Marathas under Sadashiv Rao had begun this process but couldn't implement it fully, leading to the disaster at Panipat.

With the coming of the industrial age, mechanisation of armed forces began, giving armies unprecedented mobility. The philosophy of war changed to concentrating forces at certain points by manoeuvring mechanics divisions and achieving breakthrough.

Two greatest examples of this kind of mechanised warfare are found in German tactics at world war 2 as well as India's victory over Pakistan in 1971. This is referred to as third generation warfare.

After the second world war, warfare changed again, firstly under the threat of nuclear holocaust and then under the unipolar security umbrella of NATO/US. Overt conflicts between nation equally matched nation states became rare. But this didn't mean that conflicts reduced. Instead conflict took on a new form, in which the nature of the adversaries themselves took on a more nebulous form.

No longer were nation states fighting against other nation states for classical geopolitical goals. Instead, the new wars were driven by ideology, internal strife and demographic pressures. The battlefield enlarged to include non combatant population centres.

In this new fourth generation warfare, goebbelsian tactics of misinformation and propaganda were married to both regular military and "non-state actors" to bring opponent nation states to their knees. The global jihad is the premier example of this.

India is one of the only countries to have successfully defended itself against both third and fourth generation warfare so far. However, what we face today, which various people call urban naxal/breaking India forces is something even more sinister.

Born in American think tanks as a non nuclear option to dismember the Soviet Union (yet including elements of Lenin's Comintern strategy) this new kind of warfare can be called "WEAPONIZATION OF DEMOCRACY" aka fifth generation warfare.

The objective remains regime change, but the modus operandi is significantly different to the other kinds of warfare mentioned before. First international conglomerate of media elites mobilize public opinion against the state. Then, collaborator entities are used to undermine law. However, the act of breaking law, otherwise known as a crime, is instead "sanctified" using MORAL gymnastics as something necessary against the MORAL evil represented by the state.

Anytime you hear about "Hindutva" in rags like NYT, it is this playbook that is in action - delegitimize the target state by denying it the moral right to exist. Thus emotional public opinion is pitted against established processes, weakening the democratic process itself.

It is to be noted that the "morality" mentioned here is actually of the most spurious kind imaginable. A motley collection of keywords that are drummed up to be "absolute good" - like freedom of speech, which are conveniently forgotten moment the objective, is achieved.

After the collapse of Soviet Union, fifth generation warfare became a tool for the transnational alliance of big corporates and neo-colonial Western deep state to deal with troublesome countries which display the thing that they hate the most - A SPINE.

India today has one of the finest militaries in the world. Our forces have stood eyeball to eyeball with a belligerent China. We have successfully negotiated the most brutal 4th Gen flashpoint of Kashmir. That is why we find ourselves in the crosshairs of the Fifth Gen cartel.

Understand this - an India which is not a client state of the West is an enemy of the West. That is why everything that may show Indians to develop a sense of pride is denigrated by the neo-colonial media establishment.

A vast web of collaborators and useful idiots are cultivated under the umbrella of "activists" - some are offered citizenships, some plum postings, some money and for the true idiots - two minutes of fame. The recent middlemen protest against farm laws is an example of this regime change in action. Two-bit incompetent nobodies like Yogendra Yadav and Tikait suddenly became face of democracy. Porn stars became farm law experts. The ghost of Khalistan was revived.

It is in this context that the toolkit - it's creators as well as users must be evaluated. A great crisis looms in front of our great nation. Our innate sense of right and wrong would be our greatest strength, if only we can understand why certain events are playing out.

Nobody is a mere innocent "activist" here. Behind their innocent masks lie the most vicious of intentions. It is up to us to recognize and expose them.

Quality Assurance Policy – Ordnance Factory Board

By Lt Gen VA Bhat

Author served as the Director-General of Quality Assurance (DGQA) at the Department of Defence Production (Ministry of Defence)

History

The bulk of the arms and ammunition required by the Indian Army is produced by 41 Ordnance Factories located in the length and breadth of India. Ordnance factories had been established in India for the manufacture of arms, ammunition and connected stores, clothing, harness and saddlery. These factories functioned as subsidiaries to the Royal Ordnance Factories in the UK, as a result of which the production was limited to small arms and ammunition only.

The first cell for inspection of the products of the Ammunition Factory at Khadki was set up in 1869 and its scope was enhanced later to include modifications. It was also vested with the powers of the authority holding sealed particulars (AHSP) relating to the production of the ammunition. The entire paper particulars of the designer like drawings, process sheets acceptance test procedures can, in short, be termed as AHSP. Any change or modifications carried out in consultation with the designer are then incorporated in the documents. With the increase in activities, the cell became the Inspectorate of Armaments. For the purchase and development of general stores, the Inspectorate of Stores Services was formed and attached in 1929 to the Harness and Saddlery factory in Kanpur. A small cell was set up in Rawalpindi (now in Pakistan) in 1939 to include the inspection of telecommunication equipment and the scientific instruments for the army in India. It was called the Inspectorate of Scientific Stores. The two world wars saw an increased role of the Ordnance Factories (OFB) in India. Naturally so as Great Britain played a very crucial and decisive role in these wars. Indian soldiers who were a part of the British Indian Army also played a vital role in the victory of the Allied Forces.

Post Independence

After India became independent the role of these three Ordnance Factories was diminished as we are all aware. Independent India was rudely awakened from its slumber in 1962 when China backstabbed India. Thereafter the OFB kept expanding to meet the needs and requirements of the Defence Forces of India. As of today, 75-80 % of the turnover of the OFB is the domain of the Indian Army. Balance 20% is with the Air Force, the Navy and Para Military forces.

A very pertinent statement made by a US General Walton “Bulldog” Walker goes as “We can win without food; we cannot win without ammunition.” The above statement can be extended to, “We can win without food, we cannot win without PROPER QUALITY AMMUNITION”. In the recent past when there was a spat between the Army and the OFB about defective ammunition held in the inventory of the stocking depots, the Army claimed that quote.

This holds true of all types of goods whether produced for the Armed Forces or for consumption of the citizens of our country.

The Indian exchequer has incurred losses to the tune of Rs 960 crores because of “poor quality” ammunition and mines supplied by the state-owned Ordnance Factory Board (OFB) in the last five to six years, the Army has noted in an internal assessment.

The use of OFB-manufactured equipment has also resulted in over 400 accidents between 2014 and 2019 that led to 27 deaths, the Army said.

According to the assessment, it had disposed of ammunition worth Rs 658.58 crore within its shelf life between April 2014 and April 2019. Mines worth another Rs 303.23 crore met the same fate in 2016 after an accidental mine explosion in 2016 at a depot in Pulgaon, Maharashtra.

The money lost, the Army noted in the assessment, could have been used to buy 100 units of the 155 mm Medium Artillery gun. Unquote. The OFB hit back and blamed all but itself for these accidents. OFB blamed poor maintenance, incorrect firing drills, lack of proper storage facilities and the Directorate of Quality Assurance (Agency entrusted with the task of final acceptance of the stores on behalf of the user, DGQA) for these accidents. It was a spat played out in the public domain which could have best been avoided. The fact is notwithstanding the stance of the OFB, the soldier has lost confidence in the quality of products of the OFB. A very sorry state of affairs indeed that will seriously undermine morale when faced with a continued external threat from China.

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WHO Has Given China Labs Clean Chit For Covid. But Don't Forget PLA's Bio Ambitions

By **SESHADRI CHARI**

Author is Secretary General of Forum for Integrated National Security and the former editor of 'Organiser'. Views are personal.

Over one year after the outbreak in Wuhan, and with an authoritarian Xi Jinping regime, no genuine probe on the coronavirus spread is possible in China.

The World Health Organization's **clean chit** to China does not come as a surprise at all. After all, no organisation in the world can effectively conduct a probe on the origins of a deadly virus almost 15 months after its outbreak and with the havoc it has created on the world economy and order. Reports about the origin of the novel coronavirus, first reported in China's Wuhan, had trickled in late 2019. In the next two months, it assumed pandemic proportions and the rest, as they say, is history.

Scientific journals and experts in the field of virology strongly believe that Covid-19 originated in Wuhan. What needed probing was the sequence of the spread of the virus and its route from animals or birds to human beings. Another aspect of the investigation was to determine if it was a laboratory experiment gone terribly wrong due to mutation, or an induced DNA sequence change. The WHO has **said** the lab theory, popularised by former US President Donald Trump, was "extremely unlikely".

Even if the coronavirus had begun spreading from China, with a global lockdown, total stoppage of travel and an authoritarian Xi Jinping regime clamping down on the affected area, no genuine probe could have taken place.

Can't overlook China's history

A WHO team had already visited China sometime in July 2020 to find the origin of the virus. The team is believed to have **consisted** of a limited number of persons whose names were not disclosed. The WHO was unlikely to find evidence of the coronavirus coming from a lab even then.

In its latest report, the WHO has categorically said that "it is extremely unlikely" that the COVID-19 virus leaked from a Chinese lab. According to reports, the Joe Biden administration is expected to **scrutinise** the findings. Any such scrutiny, besides creating further schism between the two estranged powers, is not likely to reveal more information than what is available now.

What can't be brushed away is the history, motives and consequences of China's forays into the world of biotechnology.

One of the world's largest biological research, genomics and techno-industry company, the BGI Group, the same company that sold millions of Covid-19 test kits, has reportedly worked with China's military (the People's Liberation Army) "on research that ranges from mass testing for respiratory pathogens to brain science", a **Reuters review** of research, patent filings and other documents found.

These organisations are sitting over a large chunk of strategic data and information, which can be dangerous in the wrong hand.

It is no secret that some of the biggest research and manufacturing institutions in China are pure and simple extensions of the Chinese military establishment. In fact, the Chinese military does not hide its intention of carrying out research on the use of biotechnology for military purposes.

China's agenda

The coronavirus may not have come from a Chinese lab, but it'll be hard to ignore China's experiments and **intentions** with biotechnology.

China Military Online is the official **news portal** of the Central Military Commission and is funded by the PLA. It is an important platform for communicating the agenda of the army and the party to institutions and the industry.

In one **article** written in 2015, Biotechnology will become the new strategic commanding heights of the future military revolution, the author, He Fuchu, argues that major technological inventions that have changed the pattern of human warfare are closely related to the development and progress of biology. Quoting Engels, he confirms the agenda of the PLA saying, "...as the golden key to understanding and cracking the mystery of biological evolution, the core of imitating and using biology, and the means of fusion of information, nanometer and other cutting-edge technologies, will drive the innovation and development of national defense science and technology, and give rise to weaponry, combat theory, and war patterns".

Nothing about the use of bioweapons to suit China's ascendancy is left to the imagination when the **article** mentions that, "As the weaponisation of biological bodies will become a reality in the future, non-traditional combat styles will take the stage, and the 'biological frontier' will become a new frontier for national defence".

There is no doubt that China's military has a very close partnership with the Chinese Communist Party, and both are headed by the same person, who is also currently the president of the country. The joint objective of all three is to increase and expand China's economic and military capability to match those of the United States. Other middle powers can wait.

Meanwhile, we have a WHO that is too late on the ground and thus giving a chance to China to wash its hands off the Covid mess.

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Nation is Indebted to:

Sheikh Shamsuddin

3-D Zardozi embroidery artist



In the known history of mankind, in every period there have been extra ordinary feats by individuals. One such individual of modern-day India is Sheikh Shamsuddin; (known as Shams) He was born on 7 Sep 1917 and grew up in narrow by lanes of city Agra. His father, Janab Habib Buksh was a well-known Zardozi embroider. Shams have left a permanent signature in the field of intricate embroidery work, which is spell binding with no parallel anywhere in the world.

Well! India wrapped in the mystique, enhanced with the romance of fabled crafts, has one of the finest traditions of embroidery in the world. It has been known for its embroidery with gold and silver threads called Zari.

A little peep into the history of embroidery reveals that this imperial craft, in fact, is known to have been present in India since the time of the Rig Veda between 1500 and 1200 BC. (Zari embroidery has been mentioned as adornment on attires of gods and goddesses) Zardozi's class art can be attributed to its enigmatic elegance, elaborate intricacy, inherent beauty, regal appeal and breath-taking designs, which emerge from the hearts of the creators of zardozi.

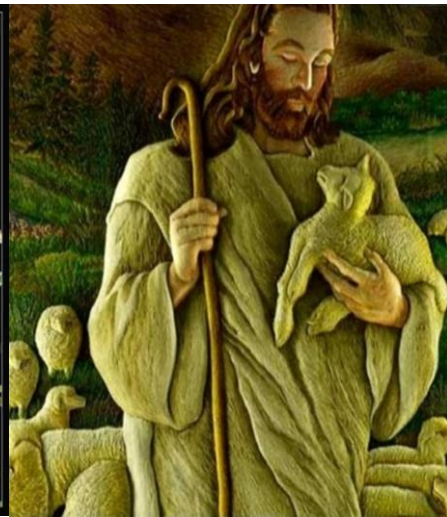
Shams Saheb's creations are in 3-Dimension mode, first in the art of Zardozi. Anyone who has seen it physically virtually gets frozen for some moments. His work is to be seen to be believed.

The works of Shamsuddin Sahab is one of the most expensive embroidery in the world.

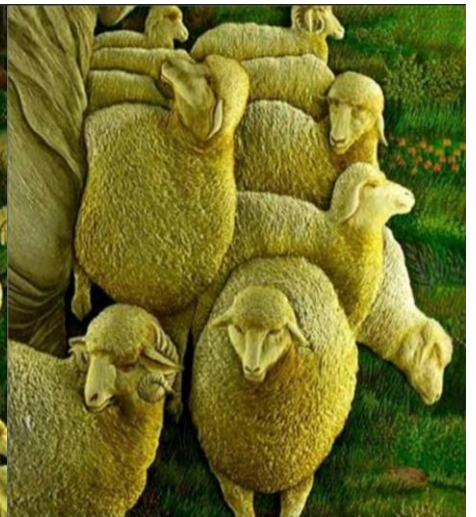
Completing Moses, as the work is called, became such an obsession for the Agra master craftsman that he ignored warnings about his health, from his father Janab Habib Buksh. "You have to finish what you start," said the artist who completed Moses in 14 years.



“Flower Bouquet”
(Size 2.30 m x 1.68 m)
(11 years to complete it)



“Good Shephard”



“Good Shepherd” took Indian master of embroidery Shams Saheb 18 years to make it. Interestingly, ancient Indian embroidery craft of Zardozi i.e. sewing with gold string is famous all over the world. Embroidery by Shams is the hardest art of embroidery in the world, and each piece weighs more than two hundred pounds (90 to 100 Kgs)! The artist adorned his artworks with jewels, and some – with thousands of gems. However, one of the most famous of his works is “Chess” which is decorated with twenty thousand stones, and the master embroidered it for THIRTY YEARS! Back in the 70’s one Sheikh from Saudi Arabia offered for it two million eight hundred thousand dollars. Shamsuddin Saheb did not sell his work, knowing that he wouldn’t be able to create anything like that. The works by Shams Saheb are the most expensive embroidery in the world.

Unfortunately, due to hard and long working hours where he created many unique 3-Dimensional embroidery, it took toll on his health and in the later part of his life he lost his eyesight.

Impressed by his great work once Pt Nehru called him “Michelangelo of East” who was a very famous Italian painter (1475-1564).

Most of his priceless creations are now kept in a museum created by famous Mogul and British time Jewellers, “Kohinoor Jewellers” in old Agra. Shams grandsons, Faizanuddin and Ferdinuddin have made Shamsuddin Sahab’s work a global brand known as “Shams”.

Sheikh Shamsuddin was awarded Padmshree in 1989.

Write to us at:

bulletin@finsindia.org

**OFFICE :4, Belle View, Lakhamsi Nappu
Road, Dadar (East), MUMBAI – 400014**

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