

# Indian Navy Running on “Jugaad”<sup>i</sup>

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## Executive Summary

*While retrofitting may have been a long conventional yet much needed operational requirement in submarine maintenance, the art of retrofitting subs which are outdated, aged and decrepit is unique to India's style of defence system management. With just 6 functional, conventional and yet Soviet era submarines India will have to forego the dream of becoming a credible maritime power in the century that is held by many to belong to the oceans, unless corrective steps are taken with all seriousness. India's maritime capability has been running a graph of inverse proportionality, for at least half a decade, with the rising importance for a country to be a sea-power. It is high time India addresses it with better defence management and efficient procurement processes.*

## The Problem

The opinion that the Indian submarine fleet was functioning below its required operational standards turned out almost into a consensus in the post Sindhurakshak accident which took place in August 2013 killing over a dozen personnel onboard. As if, that was not enough of conviction for the higher defence management in India, the Indian Navy persisted with the use of more than half a dozen submarines that had run out of their shelf-life long back, either needing replacement or mid-life upgrade as the case might have been with them. As a result, six months down the line we had another accident involving a different submarine called the INS Sindhuratna on February 26, 2014. The tragic incident resulted in deaths of two Navy personnel and injured seven others, after a deadly fire erupted on the submarine board. The Sindhuratna fire was the 10th accident involving the Indian Navy and the third submarine accident in the last seven months. Before this, the last week of January this year saw INS Airawat running aground off the Visakhapatnam Port. A little before that, INS Sindhughosh had a close shave when it entered the Mumbai harbour during a low-tide phase and was about to run aground. Besides these, INS Betwa was reported to have damaged itself after hitting some underwater object and India's leading minesweeper, the INS Konkan that was undergoing repairs in Vizag, caught fire and suffered major damage to its interiors last year.

In the latest submarine accident involving the INS Sindhuratna, according to reports in the media, just 96 hours before the incident a Navy submarine officer, Lt. Manoranjan Kumar, had issued a warning in this regard to the navy top brass. He had told higher authorities in the Navy that travelling in a submarine with phased out batteries was like travelling “on a bomb.”<sup>iii</sup> If the phased out batteries of the submarine were not replaced due to lack of finalisation of contract, then most of us can be sure of where the fault should lie: bureaucratic bottlenecks. One does not know whether the accident happened due to outdated batteries or some thing else is not the issue. The issue is certainly of old spares being used by these strategic systems, which points to the carelessness of Indian maintenance, repair and overhaul landscape. Clearly, the warning from the sailer had been ignored in line with the quintessential apathy that defence management has received from the political and bureaucratic classes in India.

The Navy, however, has quashed such reports in its probe. Instead, it has confirmed that the fire on board the sub was caused due to a faulty wire/cable. First and foremost, the independence and the credibility of the probe cannot be vouched for completely, particularly after the Indian Army’s controversial exoneration of six Army men in the *Pathribal* case, ever since which armed forces’ probes are taken with a pinch of salt. Even if one presumes that the Indian Navy’s probe has been carried out with the best of intentions and utmost probity, and that it has come out with right reports, one fails to understand why was the INS Sindhuratna running on the batteries of a sister submarine INS Sindhukesari; clearly, because of bureaucratic delays to replace the batteries of INS Sindhuratna in time. The entire act of running one submarine with the batteries of another submarine is infused with the essence of “jugaad”. As batteries are among the main components that run the submarine, a replacement in the form of a standby option should always have been with the navy in the first place. This argument is emboldened by the fact that the batteries that were found in INS Sindhuratna at the time of the accident were cleared only till May, 2014. One month of a buffer time with eventuality was always going to be tough, especially when one was dealing with a machine like the submarine.

Sindhuratna had recently undergone a refit in Mumbai and was handed over to Navy in December, 2013. Both the submarines, it is understood, had run out of its design life and hence retrofitted several times, something that the common *Hindi* parlance would understand as nothing but “*jugaad*”. While retrofitting may have been a long conventional trend in

submarine maintenance, the art of retrofitting subs which are outdated, aged and decrepit is unique to India's style of defence procurement management.

### **Technological or Sub-System Obsolescence or Both?**

One obvious assertion that has arisen in the post-Sindhurakshak and Sindhuratna disasters is the fact that the Indian submarine fleet has been on a wing and a prayer for quite some time. The common thread linking both the accidents involving the two submarines since August 2013<sup>iii</sup> is the fact that both the submarines belong to the kilo class of Russian origin and had been inducted in the Indian Navy during the Cold-War days. It is often put forward by serving personnel that the Kilo class submarines, best in their class among similar systems, are also difficult to handle but such a reason does not hold ground in this case.

More than half of India's operational submarines have completed 75% of their operational lives. It is held that only six of India's 14 submarines are currently operating at any given time.<sup>iv</sup>INS Sindhuratna is one of India's 14 conventional submarines. India commissioned its first submarine in the year 1967. India's submarine fleet served it well without any major accident for years together. The fact that there have been series of accidents involving the submarines in particular and the navy in general, of late, points to some serious concerns at hand. The consecutive lethal accidents inside two submarines and at least 10 incidents in the navy since last year bring the question of a rising distrust in the higher authority of the armed forces by serving personnel. In such a situation, the challenge before the next navy chief will be to balance the act of convincing his navy-men about the submarines being safe and shaking the Ministry of Defence out of its inaction mode on defence modernisation/procurement processes.

One unstated principle followed in the armed forces is that failure is rarely relegated to the lower chain of command, although the lower ones who bear the brunt. By that logic the resignation of Admiral DK Joshi has been well received both in the media and the armed forces. In fact it has been rated as a rare act of honour. But the question that arises is whether he should have resigned in the first place? The Admiral may have been above the rank of Defence Secretary in protocol terms, but he along with his colleagues from sister services always are at the mercy of the highest babu in the MoD, above whom stand the Defence Minister and Minister of State for Defence. Forget the defence secretary for a while, even

senior starred generals from the services depend mostly on the mercy of officers in the rank of joint secretary or additional secretary for facilitation of administrative processes of any aspect of national defence. The buck should have ideally stopped at the desk of the Minister of Defence. The other question is why did the Defence Minister accept the Navy Chief's resignation without batting an eye lid? Conspiracy theories galore in public domain and serious questions are asked, but the MoD prefers to keep a studied silence. One conspiracy theory much talked about in private circles is that now that the Rolls Royce bribery case has hogged the limelight, the Navy cases may slowly fade away!

Even as the clamour for Antony's resignation grows, Admiral Joshi's resignation should be read as a signal for the Ministry to get its act together. The writing on the wall is that the Ministry should push forward the process of modernisation of the armed forces even if its incumbent government is a lame duck. The onus of the security of the country lies with its security forces. Unfortunately, in our system the armed forces as end-user stands last in the procurement pyramid of decision making. The end-user's prerogative is practically over after the technical evaluation stage, while its role becomes limited during commercial negotiations and thereafter.

Procurement and modernisation delays in the armed forces are fast becoming its bane. The incumbent Indian Defence Minister has been accused of sitting on the files concerned with defence modernisation. Although AK Antony has earned the reputation of the longest serving defence minister of India, there have been several setbacks due to a combination of policy paralysis and indecision, especially in military modernisation sector. In fact, the number of defence contracts signed during the 11<sup>th</sup> five-year plan, with Antony at the helm, has declined. To cite an example, the Parliamentary Standing Committee on defence in its report presented to Parliament in April, 2013 stated that there has been a "steady decline" in the number of defence contracts signed during the 11th five-year plan period. The report went on to show the decline in the number of defence contracts signed each year during the period; 84 in 2007-08, 61 in 2008-09, 49 in 2009-10, 50 in 2010-11 and 52 in 2011-12.<sup>v</sup> The saintly minister may be considered 'honest' from every angle and his oft-repeated argument

It is not just the Indian Navy that is suffering from policy inaction by the Ministry of Defence. The government has been told<sup>vi</sup> by the IAF that the Air Force's combat jet fleet would soon require newer and more fighter aircraft. With the MMRCA deal hung in

uncertainty and the FGFA collaboration with Russia shrouded in distrust and obscurantism, it looks unlikely that the fighter fleet of the Indian Air Force will be bolstered any time soon.

Criticisms apart, more than 10 accidents/incidents involving the Indian Navy in a span of less than a year make it evident that the maintenance of the Indian Navy is in a precarious situation. Among these three were involving three submarines; Sindhurakshak, Sindhugosh and Sindhuratna. Such incidents, apart from denting Indian armed forces' reputation prove to be major stumbling blocks in the road for India to become a country possessing strategic blue water navy.

With the latest accident involving the Sindhuratna it is clear that the defence management will have to own up the responsibility for the accident ensuing from delays, mismanagement and apathy. While retrofitting must have been a long conventional trend in submarine maintenance, the art of retrofitting subs which are outdated, aged and decrepit is both new and unique. Subsequent retrofitting and particularly retrofitting after the shelf/design life of the machine has been over, runs high risks.

### **A Set of Options**

The first step that the Ministry of Defence can take to ensure that the Navy recovers from the setback and at the same time operational capabilities are restored or even bolstered is to hasten the procurement of six Scorpene submarines from France on a transfer of technology basis. Originally supposed to be delivered in 2014, the project has been delayed and the revised target for delivery of the first of the six Scorpene is September 2016. If the process of induction of Scorpene submarines is not hastened, some analysts and army personnel feel that they may become obsolete by the time they are ready for induction.<sup>vii</sup>

Management of defence requires efficiency at all levels of the politico-bureaucratic nexus in our country. One would not have to explain then, why has the sector of defence management in India suffered so much as much as it continues to do. Bucur Marcu (ed, et. al) in their book titled "Defence Management An Introduction" have laid out the proposition that, "one proven way of achieving this (better defence management) is to apply the managerial functions of planning, organising, leading and controlling to those segments and activities of the defence organisation that may contribute to maximising the operational performance of the armed forces."<sup>viii</sup> Apropos the quotation, the two broad categories that should be picked up to restore efficiency in the defence sector are procurement and defence management. In other words, if

the Ministry of defence takes care of two questions, ‘what/how we buy’ and ‘what/how do we do with it after we buy’ in the defence sector, India’s defence sector woes may largely be subsided.

Procurement and maintenance will have to go hand-in hand and one cannot lag behind the other. This is especially true in a country like India which is highly import-dependent. Procurement of systems involving transfer of technologies and maintenance clauses from the (Original Equipment Manufacturer) OEMs must be looked into afresh and rules be laid down so as to enable indigenous industries gain maximum dividends out of such industrial transactions. A solution to all these will be indigenisation but that, as we all know, is a time taking process, which is at the moment mired in policy indecisiveness which in turn sprouts from lack of clarity and objectivity.

India’s under-water capabilities are dwindling fast. While building indigenous submarines could be the answer to India’s long-term under water capability woes, stopping the retrofitted use of expired subs should be the short-term answer, concentrating instead on alternative ways for better systems / operation management. India’s maritime capability has been running the graph of inverse proportionality, for at least half a decade, with the rising importance for a country to be a sea-power. It is high time India evaluates its core strengths and weaknesses of its maritime power and takes appropriate / corrective steps where needed.

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<sup>i</sup> It is a Hindi word which roughly translates into ‘makeshift’ or ‘temporary solution’

<sup>ii</sup> <http://daily.bhaskar.com/article-ht/NAT-TOP-the-tragic-incident-that-resulted-in-death-of-two-navy-personnel-and-injuring-se-4538330-NOR.html>

<sup>iii</sup> An appendix of all accidents involving the Indian Navy since August, 2013 has been attached.

<sup>iv</sup> <http://timesofindia.indiatimes.com/home/opinion/edit-page/Poor-maintenance-of-submarines-and-warships-is-crippling-Indias-navy/articleshow/31119136.cms>

<sup>v</sup> <http://www.dnaindia.com/india/report-10-major-deals-pending-due-to-defence-minister-ak-antonys-overcautious-approach-1944488>

<sup>vi</sup> <http://www.thehindu.com/news/indias-ageing-war-machine-could-grind-to-a-halt-govt-warned/article5733519.ece>

<sup>vii</sup> <http://www.thehindu.com/news/national/scorpene-sub-delayed-by-one-more-year/article4942060.ece>

<sup>viii</sup> Bucur Marcu, H (et. al) (2009), Defence Management: An Introduction, Geneva Centre for Democratic Control of Armed Forces, Security and Defence Management Series [Online: web] Available at URL: [http://www.icds.ee/fileadmin/failid/Defence\\_Management\\_Intro.pdf](http://www.icds.ee/fileadmin/failid/Defence_Management_Intro.pdf)

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## **Appendix**

List of accidents that have taken place involving ships and submarines of the Indian Navy since August 2013:

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- ❖ INS Sindhurakshak (August 2013) - Blasts ripped through the torpedo compartment of the INS Sindhurakshak while it was berthed at the naval dockyard off the Mumbai coast. Fifteen sailors and three officers were killed. The vessel then submerged under three metres of water. Divers could not even approach the submarine for two to three hours due to the extreme heat that it was generating.
  
  - ❖ INS Viraat (September 2013) - Fire broke out near the officer's mess of the aircraft carrier off the coast of Mumbai in September last year.
  
  - ❖ INS Konkan (December 2013) - A mine sweeper under the Eastern Naval Command, the Konkan caught fire at the naval dockyard at Visakhapatnam while undergoing repairs. The fire engulfed much of the ship's interior before it was put off.
  
  - ❖ INS Talwar (December 2013) - A fishing trawler sank after colliding with the navy's frontline frigate INS Talwar near Ratnagiri district of Maharashtra, injuring four of the 27 people onboard the trawler. The fishing trawler was operating without lights.
  
  - ❖ INS Tarkash (December 2013) - A stealth frigate which conducted several overseas missions, INS Tarkash suffered damage to its hull when it hit the jetty while docking at the Mumbai naval base.
  
  - ❖ INS Betwa (January 2014) - An indigenously built naval frigate, the Betwa ran aground and collided with an unidentified object while approaching the Mumbai naval base. The sonar system of the frigate was cracked, leading to faulty readings and ingress of saltwater into sensitive equipment.
  
  - ❖ INS Vipul (January 2014) - A member of the elite 22nd Killer Missile Vessel Squadron of the navy, the ship was detected with a hole in its pillar compartment which forced the ship back into the harbour while it was on an operational deployment. It had to be sent back for repair.
  
  - ❖ INS Sindhughosh (January 2014) - The leading ship of her class of diesel-electric submarines of the Indian Navy, the Sindhughosh ran aground at the naval harbour in Mumbai. The submarine was freed later and did not suffer much damage. At the time of the incident, it was fully armed, carrying its entire compliment of 70 personnel, all of whom were safe.



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- ❖ INS Airavat (February 2014) - Amphibious ship INS Airavat, the latest of the Shardul class of tank-landing ships, ran aground off the coast of Visakhapatnam. The propellers of the warship were permanently damaged and had to be replaced for the vessel to become operational again.

**Source: <http://m.newindianexpress.com/nation/271088>**