

Naval Academy and the HRD Challenges Ahead

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Introduction

The Prime Minister inaugurated the Naval Academy (NAVAC) on 8 January 2009 at Ezhimala, in Kannur District of North Malabar - land of the Zamorins. From June this year, a four year B Tech programme is also to be launched from here. Henceforth, for all officers entering service, NAVAC will be their alma mater. The programme has been finalised under the auspices of Jawaharlal Nehru University (JNU) and All India Council for Technical Education (AICTE).

Establishment of the NAVAC, ushers in a new era for the Indian Navy. This is just the right time to retrospect the Human Resource Development (HRD) vision for the Navy, to meet its commitments in the 21st Century. It calls for a holistic approach, and demands a much deeper consideration whilst formulating the plan and even greater will and perseverance during the implementation stages.

Demands of Revolution in Military Affairs (RMA)

The Indian Navy's hardware acquisition plans, to cope with the demands of RMA, seem to be well in hand. Both the Government and the Navy apparently are fully engaged on the subject. However, there is a perception that greater emphasis is called for in areas of software development. Bold and determined effort should be the order of the day. Awarding executive officers B.Tech degree, per se, without also holding them responsible for the maintenance of their equipment on board, is not likely to be the solution. An attempt will be made here to indicate some of the pitfalls and show the possible way forward.

Major Challenge Facing the Navy Today

The major challenge facing the Navy today is to work out the most optimum solution to cope with increased induction of high technology on board ships. One of the solutions offered is the adoption of 'user-maintainer' concept. The issue arises as a result of some very conflicting requirements having to be accommodated on board ships. On the one hand the quantum and quality of weapons and sensors required on board to meet the threat perceptions is rising exponentially. Also, cutting edge technology is the order of the day. Speed, stealth, manoeuvrability and ability to withstand damage in action are fundamental requirements. To extract maximum benefit from these - the crew needs to be equally competent. Space on board is at a great premium. To cut down on personnel on board - considerable effort has been made towards automation and remote control etc. In the earlier days, one could afford to have a separate operator and maintainers. That luxury is no more affordable - especially in the case of a blue-water Navy, where the ship has to be self sustained at sea, especially during action conditions. Hence the operator must also take on the dual responsibility of being able to undertake onboard first-line maintenance and defect rectification. The emphasis here is on technological skills and not on academic qualifications. The requirements of Base Support / Refit / R&D etc have to be met separately.

Restructuring of Cadre

Several attempts were made to restructure and rationalise the cadre to cope with the developing scenario. Two golden opportunities that fell in the lap, need a special mention here.

The first came, with the induction of the Petya class of Anti-submarine Frigates (Project 159AE) - acquired from USSR in 1968. This almost coincided with the induction of the famous K 25 'Killer Squadron' - Missile Boats of Project 205 ER, also from the USSR. During the 1971 war, these versatile ships were used ingeniously by the Navy to cause havoc in Karachi harbour. Induction of such large number of ships from a new source other than the traditional British one, opened a unique opportunity for the Navy. Complete crews of all ships had to be trained in the USSR - each for durations up to and sometimes greater than 12 months. This opportunity gave the Navy considerable exposure to the Russian concept of 'user-maintainer'.

User-Maintainer Concept and Training

At the end of intensive user-maintainer training and work-up with the Soviet Red Banner Fleet at Vladivostok - the Indian crews became extensively proficient in exploiting Russian technology. This was adequately demonstrated during the 1971 war.

In pursuance of a user-maintainer concept - the Engine Room Department (ER) crew was trained in the USSR to operate and maintain the entire propulsion and power generation systems on board, alongwith its integral controls / instrumentation etc. The Gas Turbine (GT) controls on board were mainly electronic. The ER personnel attained sufficient competence on the control systems to be able to independently diagnose faults on the circuit diagrams and identify the electronic components in the system responsible for any malfunction.

The Petya Type Training School (PTS) was initially established in 1969, at Vishakapatnam, for training the replacement crews in India. Later this responsibility shifted to INS Sathavahana, also at Vizag. To start with, the charter of PTS provided for execution of user-maintainer concept in its entirety - at least in the Engine Room department. Accordingly, a formal Navy Order (NO) was promulgated - transferring the complete responsibility of power generation - distribution and engineering machinery instrumentation / controls to the Engine Room

Department of the Petya class of ships. The NO was kept alive till late 1980s. At the time, a story doing the rounds was that to ensure that such a venture would not succeed – a section of the instructional staff, deliberately disqualified all the competent sailors and pushed through the incompetent ones. The outcome was that the Navy could not convert this advantage - as was envisaged and the attempt remained still-born. Hence, it was unable to consolidate on those gains and allowed subsequent crews to slip back into the old British mold – which the RN had discarded long ago.

The second opportunity for the introduction of user- maintainer concept again arose, in the mid 1970s. The most sophisticated Guided Missile Destroyer (DDG) of Project 61 ME (Rajput class) was to be inducted into the Navy. This time, the issue was debated widely at considerable depth, within the Navy, and details worked out on how to implement it. Detailed syllabus for training in the USSR was accordingly finalised. Huge investments were made to set-up training infrastructure in India – to take the project forward. The decision was widely publicised within the service through a special letter to all the naval commands under CNS's signature.

At the end of the extensive training at Poti and work up with Soviet Black Sea Fleet – the crews were all set to take the user-maintainer concept forward. Same as for the Petyas - the ER artificers acquired adequate expertise to diagnose and rectify GT faults on the circuit diagrams from symptoms observed during operations. Their main limitation was that though proficient at welding, casting and bench / machine workshop skills etc - they had not been given adequate practice on circuit board repairs. In any case this was not considered necessary - since normally, repairs on board were to be effected by circuit board replacement. The status of the seaman departments was also similar. The cross training experience converted many of the electrical artificers into excellent operators also.

At the time, it was envisaged that eventually to implement the user-maintainer concept, the electrical officer's role on board was expected to be partly merged with the executive departments. Transfer of power generation and distribution responsibility to the ER department was also on the cards. To enable a smooth transition, the respective executive departments on board were suitably augmented with additional electrical personnel. The expectation was that eventually – the young electrical officers would be given the option to choose between the executive and the engineering branch. And will be given the opportunity to earn their watch keeping tickets in the respective departments of their choice.

Following the changes in the Royal Naval (RN) officer's cadre structure - the idea of E & L merger was mooted in India, as far back, as the 1960s. One of the main reasons given, at that time, for the proposal not being acceptable to the Engineering branch was the disparity in inter-departmental promotion prospects. A Third course Joint Services Wing (JSW) Engineer officer would have become a Commander – at the same time as a Sixth course Electrical officer. Amalgamation at that stage would have meant a Third course Engineer (E) officer, having to serve under a Sixth course Electrical (L) officer, for no fault of his. To eliminate such an anomaly, the Navy made efforts to provide a level playing field. By late 1980s, the Navy brought about a marked change. The Chief of Naval Staff (CNS) and the Commander-in-Chiefs of Naval Commands (C-in-Cs) from the Executive branch and Chief of Material (COM) / Controller of Warship Production & Acquisition (CWP&A) from the technical branches and Chief of Logistic Services (CLS) from the Logistic branch, were all from the First course JSW. This should have pulled the rug from underneath the feet of those who were opposing such an amalgamation on grounds of disparity in promotion prospects.

What needs to be remembered further is that by then, at least five complete crews for Petyas, ten for the Missile Boats and four for the DDGs were trained in the USSR – under the user-maintainer concept. The training period for each crew, including the work-up with the soviet fleet, stretched out, some times, to almost 18 months. Thereafter, for subsequent training of replacement crews – extensive type training infrastructure was also set-up in India, at considerable expense.

Taking stock of the situation three decades later – one finds that the objective of user- maintainer status was hardly achieved. The cause of the failure on all counts could be attributed to turf war syndrome and inadequate determination and will to push it through, at the corporate level.² A cost-benefit analysis of the over all training effort on this score would be greatly enlightening.

Present Naval HRD Policy

At present, the C-in-C Southern Naval Command (SNC) has been charged with the responsibility of managing all the naval training establishments in India. The Chief of Personnel, at Naval Head Quarters (NHQ) is over all, responsible for formulating the Naval HRD policy at the Corporate level.

Presumably, the shortcomings observed, in implementation of both the user-maintainer programmes and the B.Sc degree course for Executive officers, are proposed to be overcome at the new NAVAC. The up-gradation and reorientation to B.Tech course for all Executive officers is supposedly meant to achieve that end. Hopefully, substantial changes have been incorporated in the original B.Sc curriculum - to enable practical technology orientation necessary to achieve the B.Tech goals. And modern well equipped professional laboratories and work shops have been suitably catered for at NAVAC. Also, suitable counter measures are contemplated to cope with the mind set blockage problem, faced earlier.

The Way Forward

During the process of evolution of the corporate decision – the following issues would need to be addressed seriously:

(a) Is the primary purpose of the exercise:-

- (i) To optimally manage the onboard technology as a user-maintainer - with minimum personnel on board?
- (ii) Is that best achieved by adopting the US line officer concept route? If so - the man power cadre structure would need a total overhaul.
- (iii) Or is an innovative concept to be evolved - taking forward the earlier attempts at achieving user-maintainer concept?
 - (aa) In which case, one option would be to follow through with the user-maintainer concept - aborted earlier due to lack of will.
 - (ab) This would call for part amalgamation of L Branch into E Branch - transferring power generation and distribution responsibilities to Engine Room (ER) department on board.
 - (ac) The rest of the younger L Branch officers would progressively be absorbed into the Executive (X) Branch. All junior L officers would be given the opportunity to volunteer and make their own choice. And will be required to earn their watch keeping (WK) tickets in the ER / bridge, as applicable.
- (iv) Merely a recruitment ploy - a welfare measure, providing the executive officers a better re-employment potential at the time of retirement?
 - (aa) The argument that today, many of the sailors at entry are already 10+2 - would not hold water.
 - (ab) Cost benefit analysis would also not justify such a measure.
- (b) All those E officers who are opposed to the progressive changes proposed need to be reminded of the writing on the wall. Even the RN is now planning to change over to integrated electrical propulsion system and electro-magnetic aircraft catapult for their future aircraft carriers i.e. CVF. The United States Navy has already slotted in the Electro-magnetic Aircraft Launching System (EMALS) for their CVN 78 programme from 2015 onwards.
- (c) Finally, the B.Tech proposal for the executive officers would only be justifiable - if at the end of it - the Executive officer is expected to independently carry through the user-maintainer concept in his department. Otherwise, it will surely not pass the cost benefit analysis criteria also.
- (d) The entire gamut of cadre review must be carried out in totality and not merely in isolation. Also, take into account the future requirements of Revolution in Military Logistics.
- (e) The emphasis on upgrading of skills should also be taken to the seaman. Linked incentive of higher remuneration should be offered to the dual role sailor. The seaman operator must take on the dual responsibility of a semi-skilled maintainer as well. the electrician / radio / radar mechanic must additionally take-on the operator's role on board. Only then would it be possible to cut down on personnel, on board.
- (f) Once a corporate decision is taken - that must be seen through, to the end, with full determination and perseverance. Checks and balances must be instituted to ensure that parochial interests are not allowed to derail the reformation / restructuring process - as happened during earlier attempts.

Conclusion

In conclusion, it may be emphasised that to ensure success this time the issue needs to be looked at holistically and formulated transparently. The legitimate issues need to be seriously addressed and apprehensions of the concerned parties put to rest. All branches need to be taken on board, giving the widest coverage. Keeping the long-term perspective in view, the need for integrated logistics (as propagated by the author earlier) would also need to be given due consideration.

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