

# “ GIVE ME A BREAK!”

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## CASE STUDY

In 1999 – 2000, IHQ MoD(N) was considering replacement of supply breakers of some Naval ships as the existing breakers had become erratic, unreliable and increasingly defect prone. Production lines in the original factories abroad had switched over to new generation breakers; hence spares were in short supply, due to which, Dockyard found it difficult to repair and calibrate these breakers. Three firms supplying new generation breakers were identified and trials were carried out at the Trial Agency. In due course, a Board was convened to examine the feasibility of installation of the new breakers on board ships of a particular class. For the purpose of the study, INS Amazon, a ship with older generation breakers was chosen. The report was submitted to IHQ MoD(N) through Command Headquarters (CHO) by end Jul 01. Although CHO favoured breakers from Firm 'X' as they were easily available in station, IHQ MoD(N) was of the view that breakers from Firm 'Y' at Bangalore, were better as there was more





indigenous content and the breakers were closer to Naval standards. IHQ MoD(N)'s view prevailed and Firm 'Y' breakers were approved by letter on 06 Sep 01. Since Amazon had a Normal Refit (NR) coming up the following year in Aug 02, it was decided to install the new breakers there first. The letter however did not give pattern numbers and specifications of the new breakers, nor was a copy of it marked to the Material Organisation (MO). Hence, MO was unaware of the plans for the new induction.

On its part, CHQ directed the ships and the MO to place demands and initiate procurement respectively. However, to initiate procurement, the MO had to have demands pending on them. On the other hand, to raise demands, the ships required pattern numbers from the MO. But before the MO could allot pattern numbers, they had to introduce the items into the ILMS. This process was completed by end Nov 01, and ships were given the pattern numbers. Demands were raised by end Nov / early Dec 01 and procurement action was commenced.

Meanwhile, a need was felt at IHQ MoD(N) to re-schedule the forthcoming NR in order to enable installation of a new weapon system arriving from abroad in 2003, which required the ship to be in refit for at least six months. Since it would have been counterproductive to carry out two NRs in as many years, after an assessment of the hull state and main machinery condition, it was decided during the Annual Refit Conference in Nov 01, to give the ship a SR from 09 Mar 02 to 08 Jun 02, so that essential repairs and maintenance routines could be completed, while other jobs could be deferred to the NR next year. The NR originally scheduled for Aug 02 was thus shifted to May 03.

During the procurement process by MO, in Dec 01, the firm raised some technical queries. As no technical member was present during the NLC meeting, the same were forwarded to CHQ for clarification. CHQ in turn, sought replies from the Board. By then the original Board members on board Amazon had been transferred out, besides

the ship was at sea, so INS Brabazon, a sister ship was asked to provide answers by mid Feb 02. Brabazon discovered that due to equipment differences between them and Amazon, the scope of supply had to be enlarged to allow for these dissimilarities. This aspect had not come out in the Board's report. Accordingly, the cost went up. Procurement of breakers with amended specs as indicated by Brabazon, was approved by CHQ and MO was directed to procure the breakers at the earliest. The material state of the existing breakers on Amazon had begun to deteriorate further and on entering SR in Mar 02, the ship sought assistance from the Dockyard for repair.

CHQ considered that the breakers could be installed during the SR, hence MO was told on 11 Mar 02 to procure the breakers on priority. As demands had already been raised more than three months ago, the ship asked MO by Navygram to confirm if the demands were still valid. MO instead replied a month later saying that the items were "not available". This led to further exchange of letters. The SR was by then more than halfway through. During discussions of CHQ with the firm, it emerged that budgetary quotes given in Jun 2000 were for standard breakers while those to be supplied to the Navy required modifications to meet specific Naval requirements. In view of this new input, CHQ directed MO to disregard the earlier quotes, obtain fresh quotes and include a technical Officer of the ship during negotiations. By the time MO obtained fresh quotes, the ship's refit was over. Breakers for Amazon were however not procured, as the cost of three ships' sets was beyond the financial powers of the Command. Instead, two sets of breakers for the two sister ships were procured. Procurement of Amazon's breakers was held in abeyance till her refit next year and the ship continued with her old breakers through '02.

The following year, fitment of new breakers was included in the defect list prepared by the ship prior to the refit and fresh demands were raised. In Jun 03, CHQ reminded MO to commence procurement as the ship had just entered refit. Procurement was sought by Oct 03 as a new weapon system was to be installed and it was essential that the new breakers be







fitted prior to weapon installation, since erratic power supply to the new system, particularly at the testing and tuning stage could not be tolerated. The firm visited the ship and submitted a revised techno-commercial offer, which was found to be satisfactory. All seemed to be well. The ship also pointed out that as delivery time was 10 weeks followed by 60 days installation time, early procurement action was essential. The need for early procurement was reinforced by CHO in mid Sep 03. Till mid Oct 03 the NLC for procurement of the breakers had not been convened and the ship pointed out in a letter to CHO that this was likely to cause slippages in the refit.

Eventually, MO convened the NLC in end Oct 03, but did not include a ship's rep. Hence when a cost difference was observed between the sets supplied for the two other ships and the set offered for Amazon, on account of additional items being supplied, the case was again referred to CHO for confirmation / clarification and for sanction on STE basis. CHO took up the case for sanction, but this time the IFA pointed out discrepancies, so the entire case was returned to MO for reconciliation in end Nov 03. MO finally resubmitted the case to CHO in early Dec 03. Eventually, sanction was accorded in mid Dec 03 and a purchase order was raised. Since the firm had some objections to the wording of the order, the order was placed only in Feb 04.

On the ship's request, the firm agreed to advance delivery of the order. The ship stayed in touch with the firm and informed MO that on 22 Mar 04 the items were dispatched after inspection and were likely to reach MO on 24 Mar 04. When the items arrived, it was found that the I-Note was not enclosed, hence MO could not take the items on charge. Consequently, issue to the ship was delayed by another 25 days, till the I-Note was obtained and the items were cleared. By then once again the ship's refit was over. In any case a fait accompli had been reached two months earlier, as installation during the final stages of refit would not have been possible, since various systems were in their testing and tuning stages

and shutting down the power supply for installation of breakers in the switchboards would have slowed down the entire ship's progress.

The ship had no option but to look for another slot for installation of breakers. Luckily, one such slot emerged, as the foreign firm supplying the weapon system had to carry out system alignment and tuning in harbour, for which, the ship had to be alongside for a month in May 04. When installation commenced, it was found that the breakers did not go into the auxiliary switch board completely and protruded out by 15 cms. Apparently, when the firm had visited the ship in Aug 03, they had only visited the main switchboard and not the auxiliary switchboard.

### **CASE NOTES**

**Background.** This is an actual case describing the events that took place on board a frigate. This ship was commissioned in 1982 while the equipment fit was procured a few years prior to commissioning, with technology of the seventies and late sixties. The original breakers used a large number of moving parts, springs, etc and required extensive maintenance and periodic calibration. In the late nineties, breakers employing new technology emerged in the market. These were cheaper, lighter, modular, had very few moving parts and required no regular maintenance and calibration. The case was studied by the author as part of his Long Defence Management Course and is based on his knowledge of the same during his tenure as Fleet Electrical Officer, immediately before the course.

**Aim.** The aim of the case is to bring into focus aspects of technology, project and logistics management and their effect on the role worthiness of operational fighting units in the Armed Forces, as well as, the importance of synergising efforts.

### **Applicability Of Management Concepts To This Case**

**Technology Management.** In this case, the existing breakers had become unsupportable, erratic in their operation and were well into their decline. New breakers should have been introduced before





the existing breakers reached this stage since they were vital to the role of the ship. As it turned out, introduction of new breakers became not so much a means of value addition but a functional necessity. Closer interaction of IHQ MoD(N) with Command Headquarters, shipboard users and Dockyard repair centers would have revealed the existing and emerging state of the breakers. This could have helped IHQ MoD(N) planners to decide when to introduce the new breakers.

**Project Management.** In the instant case, there appears to have been a complete lack of project management. There was no central figure to steer and monitor the project. Once the directive was issued by IHQ MoD(N), a meeting ought to have been convened by CHQ to brief all concerned about the requirement. The meeting could have included reps of the following, among others:-

- Ships.
- Feasibility Study Board.
- MO.
- Dockyard.
- Supplier.

The role of the project sponsor could have been fulfilled by CHQ and a Project Manager could have been appointed with a core team comprising reps of the agencies listed above. A clear briefing would have put all concerned on an 'even grid' and the importance of the case as well as the available time frames could have been explained. Difficulties and constraints would have emerged and a re-scheduling of the project time frames could have been done if the need arose. Although meetings were called at later stages there was only partial representation, without MO reps having been present at any stage. Further, subsequent meetings were of the nature of "after the fact", rather than "before the fact". That the new breakers were installed on the other two ships of the same class was a matter of chance rather than a result of a structured, coordinated approach.

Queries and problems were being referred back to CHQ by MO who would pass them on to the ship. The result was an extremely slow communication process. Since time schedules were not tightly controlled, project 'drift' became visible.

**Supply Chain Management.** Although the concept of supply chain management was developed for industry, there are important lessons one can draw from it. The supply chain in the Navy, or in the Services in general can be considered as those agencies that are involved in getting an item of spares or stores to the end customer, which in this context is the ship. There is clearly a need to streamline the processes and procedures, to ensure that the pipelines described above flow smoothly. This means that the various agencies mentioned in the case, IHQ MoD(N), CHQ, MO have to be more responsive to the needs of ships. In this age of fax and email connectivity, the slow method of corresponding by snail mail, will not achieve the desired end state. This was evident as the ship asked MO by Navygram in Mar 02 to confirm if the demands were still valid and the MO forwarded an inane reply a month later by letter, that "the items were N.A.". Clearly, if the Navy has to meet the logistics demands of the 21<sup>st</sup> century, actions and responses will have to be more meaningful, which can only happen if the relevant data is available online.

**Conclusion.** The case described is an example of how things ought not to have been done. A relatively simple task was allowed to go out of control, because the various agencies involved had not taken any steps towards synergisation. At IHQ MoD(N), forecasting had not been done, with the result that the new breakers were inducted at a stage when the existing breakers were almost non-functional. At the Command level, there was little effort at coordination, while the MO remained unaware of the urgency of the items. The absence of a project supervisor led to a project drift, while at the ship level, it was apparent that the Board members had not applied themselves. Instead of a value addition from a refit, it became a desperate scramble to have just about any breaker in place, lest the ship should be unable to put to sea. Thankfully, though the system has vastly improved,





the best systems, like horses in the Academy have a nasty habit of bucking their riders and taking off in the wrong direction, unless controlled firmly.

Naval Officers would thus do well to keep the lessons of this case in mind.

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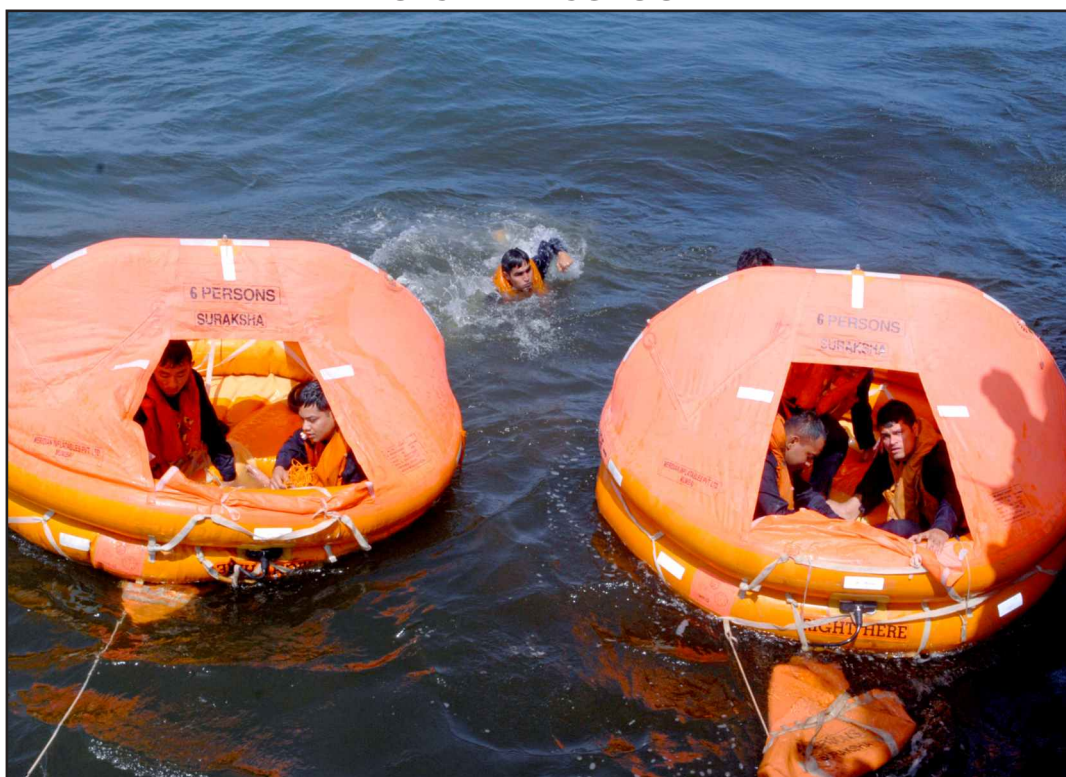
### **ABOUT THE AUTHOR**



Cmde Sanjay Tewari (50751-T) is the CSO(Tech) at HQ ODAG. He studied this case while undergoing the Long Defence Management Course at CDM, Secunderabad, based on the experiences of his tenure as Fleet Electrical Officer of the Western Fleet, immediately prior to the course. On completion of the LDMC, he was posted as Director, Underwater Ranges, Goa, and thereafter as Director Naval EMC Centre, Mumbai followed by a stint as AGM(HR) in Naval Dockyard, Mumbai. He has served on board IN Ships Rajput, Rana and Ranvijay, besides tenures at Naval Headquarters, Valsura, ND(V) and HQWNC. He has authored two books, "In The Wake Of The Swordfish" on the history of INS Valsura and "Through The Labyrinth Of History - A Journey Through 275 Years Of The Naval Dockyard At Mumbai". He is an alumnus of the NDA, having passed out with the 58<sup>th</sup> Course in 1980.

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