

# MANAGEMENT OF INDIAN NAVAL DOCKYARDS

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## ABSTRACT

The recent harsh strictures passed by the Controller and Auditor General on the present functioning of the dockyards causing delay in the refit of ships has led the author to search a possible solution to the existing problems.

There was a time when the Indian Navy had just one dockyard i.e. the Naval Dockyard, Bombay which was acquired from the English. However, with the induction of the 'Eastern Origin' ships in 1968 and the subsequent setting up of the Naval Dockyard, Visakhapatnam in 1979, the refit management of both dockyards has assumed tremendous significance.

The author makes an humble attempt to highlight the existing deficiencies in the present refit management of the dockyards and suggests a need for a centralized and independent organization, primarily to look after the total refit spectrum of IN ships and of ensuring in both the dockyards that the resources installed are utilized in a most cost effective manner to ensure the better material state of the Fleet and thereby instil a greater sense of confidence in the users, specially the Fleet Commander.

## Introduction

Management in the most general and broadest sense is a new jargon at least to the Services and newer still when one applies to the management of our dockyards.

The Naval Dockyard, Bombay which was acquired from the English, along with its own assets and liabilities, is still going strong. This is basically on account of the tremendous momentum and inertia that it has gathered through its long years. The organization has gone through only one momentous change from a 'departmental' to a 'functional' concept. This change was based on the author's service paper, *The new Dockyard Organization*, which was written in November 1975.

The setting up of the new dockyard in the East in 1979, to look after the refit requirements of the 'Eastern Origin' ships, has opened a new chapter in our Naval history. It has also made one ponder as to what should be the role of the two dockyards and how should the East react with the West. What ships should the Vizag Dockyard take on vis-A-vis the Bombay Dockyard and whether there is a necessity for a centralized and independent agency to be set up primarily to look after the refit management of IN Ships at both these dockyards with a view to ensure optimum utilization of the resources vis-à-vis load balancing of both yards.

This need for such an agency is inevitable and is a logical follow up, if one is to accept the principle of Refit Management in its entirety as distinct from 'Operational Management' of ships. It is felt that this agency will go a long way in improving the quality of refit of ships and thereby the material state of the Fleet.

### Existing organizational set up—an analysis

Both the Naval dockyards have been made responsible both technically and administratively to the Administrative Authority. Also, in an indirect way, the Admiral Superintendent continues to be responsible to the Chief of Material. The existing organization have the following disadvantages:

- (a) A semblance of dichotomy in the exercise of Command over the Admiral Superintendent exists. The Admiral Superintendent has a clear and well defined time bound task to perform and his priorities are subjected to frequent changes by operational requirements thereby upsetting the refit programme which is already approved and promulgated by Naval Headquarters.
- (b) Dilution in the refit efforts due to changes brought about by being forced to meet operational commitments due to (a).
- (c) Frequent revision of dry docking programme and refit plans leading to wasteful expenditure and managerial manhours due to (b).
- (d) Diversion of manpower and resources at the cost of scheduled refit commitments due to (b) and (c).
- (e) Uncontrollable overtime to catch up with refit schedule due to (d).
- (f) Presently, the Chief of Material is beset with both operational problems and in addition, problems pertaining to refit of ships. This has resulted in lack of **dedicated attention** to refit problems and subsequent dilution in the control of refit of ships.
- (g) No single independent agency exists to evaluate the performance of the two dockyards and direct remedial measures to be implemented in weak areas with the necessary support and **utmost despatch**.
- (h) Finally, psychological effects on personnel due to changes in refit schedule which can only be experienced and not measured.

The major single most contributory factor responsible for the present malaise' of **both** the dockyards is that the acquisitions, more often than not, has preceded the setting up of proper shore facilities. For example the Type 41, 12 and 14 frigates in 1960's. Not to be satisfied with the above, the

acquisition of even the LEANDERS in 1971 in our Fleet was another classic example. The LEANDER Training Complex was set up in Shivaji only as late as 1978. This has been our performance in naval planning as far as the Western acquisitions was concerned. This is not to say that our performance in respect of 'Eastern Origin' ships was any better. The first PETYA arrived in end 1968, and INS Satavahana (PETYA Training School) was set up only in end 1973. This has been a major weakness on the overall Defence and Naval planning.

Another contributory factor responsible for the unsatisfactory material state of the ships coupled with a large backlog of refits, has been the **necessity to meet 'operational requirements'** which has completely upset, if not adversely affected (rather crippled) the management of the dockyards. This phenomenon by its recurring nature over the years has gained tremendous momentum and the associated overriding priority attached to it, has often disturbed the refit schedule of the dockyards.

To overcome the above deficiencies, a new dedicated, centralized and independent organization has been evolved.

### Proposed Organization

The proposed organization is shown in (Fig.1). The main salient features/advantages over the existing set up are:

- (a) The refits of the ships would be conducted in a more businesslike manner, because once having cleared the refit programme, all refit ships will be placed under the overall control of the Director General Dockyards, who shall be directly responsible to the Chief of the Naval Staff.
- (b) The DG (Dockyards) would exercise direct control over both the dockyards and shall be directly responsible to the Chief of the Naval Staff. This will result in a smooth and fruitful conduct of the refit as the chain of command is precise and clear. (In the existing organizational set-up of the dockyards vis-à-vis their hierarchy in the chain of command, the refits of ships have largely suffered due to priorities of 'refits' and 'operational' requirements being mixed up).
- (c) The new organization would take the burden of the refit problems off the Chief of Material enabling him to devote more attention to the upkeep of the Fleet, Training, defect analysis etc.
- (d) The control of the dockyards would now rest with a single and independent agency. The agency could concentrate and devote its full attention and energy to the **refit of ships**, This in turn would help to improve the material state of the ships, the fighting efficiency of the Fleet and thereby the National Security.
- (e) The provision of spares, yard materials and equipments exclusively required for refits of ships would be undertaken by this agency. The existing organization of the DLS will continue to perform its role for provisioning other materials except those required specially for refit ships.

This will also induct a greater sense of accountability when the 2 yearly refit plan is drawn up for approval as the same agency drawing up the programme will be responsible for timely positioning of spares.

A broad charter of duties of the DG (Dockyards) would be:

1. Draw up standard work package for NR/CR/MR.
2. Draw up standard man hours for NR/CR/MR.

3. Draw up standard material lists for NR/CR/MR.
4. Draw up standards for assessing performance of both the dockyards.
5. Ascertain capacity of both the dockyards i.e. average load, maximum load, maximum continuous load.
6. Draw up 2 years refit programme.
7. Draw up the 5 years and 10 years refit programmes, catering for the modification and D-2 refit also.
8. Draw up major critical material hold-ups during refits and plan substitution either by indigenization/local dockyard manufacture.
9. Draw up refit history of ships i.e. dates of refits undertaken, critical and major problems encountered during the refits, dates of docking, record of sea trials and full power trials, limitations etc.
10. Draw up modernisation plan of ships.
11. Plan entry for new acquisition ships i.e. Logistics (spares, machinery, yard materials and dock blocks), documents, shore facilities and training.
12. Carry out periodical review of residual life of ships.
13. Reclamation of materials.
14. Disposal of scrap.
15. Procurement of labour saving machinery, example: Water jet machine, hydraulic manipulator etc.
16. Replacement/modernisation of machinery installed in Dockyard.
17. Study of major machinery failures found as a result of opening up for repairs during refit and recommend remedial measures.
18. Review of complement and put up cases to Government as and when due.
19. Plan for reducing existing backlog of refits.

### Conclusions

The growing demands and refit requirements for the ships have been projected both on a piecemeal basis and with inordinate delay and has been met in a similar reciprocating manner without an integrated overall control and accountability. This has eventually led to a considerable drift and created an ever widening gap in the actual demands and the resources required to be met for the new acquisitions which has taken both the dockyards by a storm at various points of time.

It is therefore considered worthwhile to have an independent and centralized agency to take on the task of controlling and directing the destiny of both the dockyards in a most cost effective manner in order to fulfil the tasks of timely completion of refits assigned to them and also to gear up for the future refits of new acquisitions. The financial effects of such an organization, if and when created will be marginal and its benefits will far outweigh the expenditure incurred. It must be clearly understood that the 'Refit' and 'Operational' cycle of a ship are two distinct facets and each has a role to play. The Operational defects must be undertaken by the Fleet Maintenance Units (FMU's) unless it is of a very major nature involving dry-docking of a ship. The necessary civilian personnel of the dockyard earmarked for taking on operational defects can be re-assigned to the FMU's. The FMU's both in the West and East under the Fleet Commander should be called upon to play a larger role.

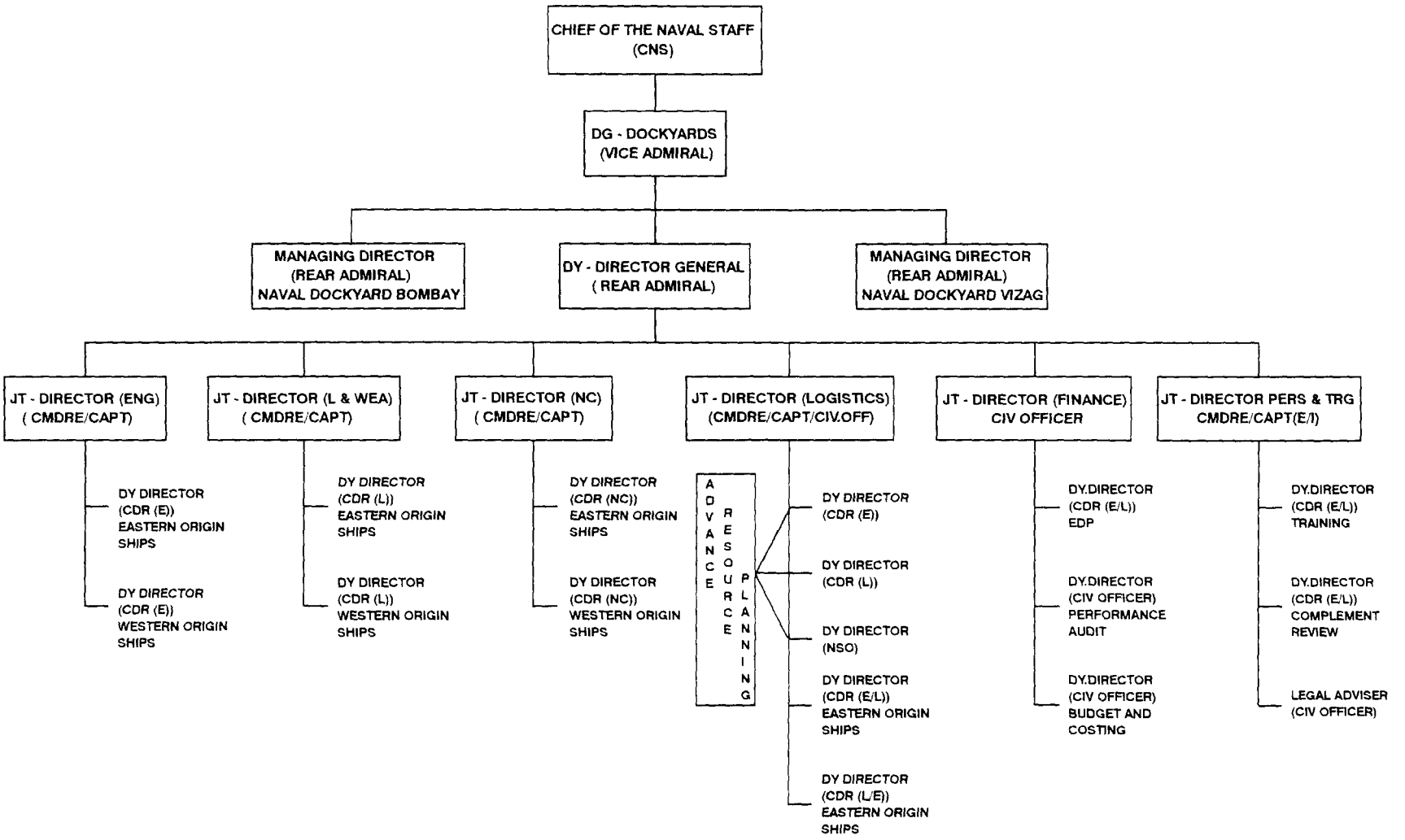


FIG. 1—PROPOSED ORGANIZATION

Any delay in setting up an agency in whatever form it may take will only mean confirming **permanency** to the existing state of affairs both in respect of the material state of the Fleet vis-à-vis the backlog of refits with consequential repercussions on the seagoing and fighting efficiency of the ships and alas an impending threat to our National Security.

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