



## CHAPTER 7

### LOGISTIC SUPPORT DOCTRINE

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## CHAPTER 7

### LOGISTIC SUPPORT DOCTRINE

*“Logistics provides the physical means for organised forces to exercise power. In military terms, it is the creation and sustained support of combat forces and weapons. Its objective is maximum sustained combat effectiveness.”*

- Rear-Admiral H Eccles, USN, (Ret.)

### INTRODUCTION

The way to naval strength is logistics - a total integration of trained and dedicated personnel within a complex network of technical support, facilities, transportation, matériel and information systems.

SANDEF doctrine indicates that logistics is the integrated series of processes required to ensure the availability of matériel, facilities and logistics services in support of military operations.

The Naval Logistics policy requires that appropriate and quality matériel, facilities and logistics services must be provided to ensure that the levels of availability of vessels for operations are met at all times. The main functions are to provide logistic support, engineering services, facilities and the provisioning, distribution and maintenance of matériel services in support of the Navy. Logistics enables the SA Navy to support Force Structure Elements (FSEs).

### LOGISTIC SUPPORT CONCEPTS

In order to meet the Naval Logistics Policy, the Navy adopted an integrated management approach to Logistics. The following describe the Integrated Logistic Support Concepts applicable to the Navy's Logistic Support System.

#### **Integrated Logistic Support Management**

The SA Navy's Logistic Support is based on an integrated management approach over the full life cycle of a Product System through the application of multi-disciplinary teams. System Management is used to ensure that the life cycle approach is followed.

The Logistic Support capacity must be commensurate with the support requirements of the approved force design in time of war. Spare capacity during peacetime must be utilised to achieve maximum economic benefit.

The widest possible range of industrial support in peace and war is to be used to share overhead costs and risk and to increase flexibility.

Long-term alliances are formed to ensure through-life support for the systems. This is implemented in such a manner to generate maximum benefit to the national economy.

### **Maintenance Support**

The maintenance mix will migrate to a predominantly examination and opportunity based approach to optimise individual product system through life support. This leads to a reduced focus on defined periods of grouped tasks and an increased focus on a continuous maintenance approach.

The minimum own maintenance capability is Ship, Submarine and Fleet Maintenance Support, where the depth of work to be performed is determined by the Logistic Engineering process.

The consequence of failure is a prime driver in determining the maintenance mix. Preventative maintenance is used only if it can be justified in terms of mission criticality, safety, statutory requirements or economical considerations.



Planning and decisions are based on analysis and predictions derived from a probabilistic approach. Data for the analysis is derived from operating data as well as data obtained from system suppliers and other users.

### **Supply Support**

Certain principles are followed in ensuring good supply support is given to the Fleet to ensure that the logistic system is conducive to high speed and low mass.

- a. The tasks of handling, storage, preservation and distribution (warehousing) must be outsourced or insourced if it negatively impacts on operational effectiveness.
- b. An analytic process based on future availability and requirements drives the sparing approach where data exchange with suppliers and manufacturers is utilised to support effective sparing.
- c. Procurement is specification driven.

### **Engineering Support**

The Integrated Logistic Support is based on Logistic Engineering Sciences and will be Logistic Support Baseline driven.

In line with the international trend of making use of Commercial off the Shelf (COTS) equipment, functional specifications will be increasingly used to allow for the use of commercial products and services. This implies an in-house or local capability for high-level system design and integration.

The in-house capability is focused on Logistic Engineering, feasibility studies, risk abatement, quality management and baseline maintenance.

The engineering support concept ensures access to a Logistic Research and Development capability.

### **LOGISTIC PERSONNEL**

The logistic training and development program ensures a professional workforce with a flexible working culture. The concept includes exposure to commercial and international environments. The employment concept allows for the extensive use of multi-disciplinary teams. The concept ensures that logistic personnel are regarded as the key factor to the successful support of complex weapon systems.

## **MAINTENANCE LEVELS AND DEPTHS**

**Maintenance Levels.** The following is the terminology used in the SA Navy with regard to the organisational levels of maintenance of naval vessels and shore based operational equipment (this is not to be confused with the Depth of Maintenance):

**First Line** denotes ship's staff that is responsible for both the preparation for operation and the initial diagnosis of defects on the systems.

**Second Line** denotes the Fleet Maintenance Unit established to provide support for vessels and their systems for which facilities do not exist onboard the vessel to carry out repairs.

**Third Line** denotes the maintenance organisations within the Naval Service (Naval Dockyard, Workshops of Naval Stores Depots and Armament Depots) to provide support for vessels and their systems, excluding the organisation within the First or Second Line. It implies workload for which no facilities or expertise exists within Second Line.

**Fourth Line** denotes private organisations (contractors) providing repair, modification and reconditioning/overhaul of vessels and their equipment for which the facilities, expertise or resources are not available within the SA Navy.

**Maintenance Depths.** The following is the terminology used in the SA Navy in regard to the depth of maintenance and repair of naval vessels, machinery and equipment:

Depth A is that maintenance which is directly concerned with preparing the item for use, and keeping them in day-to-day order.

Depth B focuses on all maintenance and repair activities beyond those maintenance activities identified as Depth A and will normally not require specialised skills and support resources.

Depth C ensures that the item identified as faulty during Depth B maintenance is repaired and will normally require more advanced skills and support resources.

Depth D is full reconditioning, overhauling, major conversion, major rework, or such repair as involves work on this depth.

## **SUPPORTING UNITS IN THE SA NAVY**

The following logistic capabilities/units are used to provide the SA Navy with an integrated logistic support system.

**Technical Upkeep Section.** Technical Upkeep Section is responsible to co-ordinate and control the technical upkeep planning for all SA Navy vessels and equipment.

**Fleet Maintenance Unit.** The Fleet Maintenance Unit is the SA Navy's second line and quick reaction upkeep capability. Fleet Maintenance Unit provides the technical components, as well as the preparation and co-ordination of technical upkeep

contingency plans of a Transportable Logistic Support Service during joint and autonomous military operations.

**Naval Dockyard.** The Naval Dockyard is the SA Navy's refitting authority. First and second line assistance is provided to the Fleet if the repair requirement is beyond the predetermined capability and capacity of Ship's Staff and the Fleet Maintenance Unit.

### **LOGISTIC SUPPORT PROVIDED TO NAVAL SHIPS**

Logistic support in various forms is provided to ships on deployment. The larger ships in the SA Navy's inventory are self-supporting, but the smaller ships need additional support facilities when deployed for extended periods from their home base. The section below describes the doctrine that is followed in supporting the ships when deployed from their home bases.

**Naval Support to Ships on Deployment in Foreign Countries.** A shipping agent, appointed on a two-yearly contract, is responsible for delivering fuel, oils, lubricants, victuals and spare parts to ships in any foreign port. There is a direct link between Naval Stores Depot Wingfield and the shipping agent to enable the delivery of spares to the ships.

**Transportable Logistic Support (TLS).** TLS can be used to support ships on deployment. It consists of transportable self-contained containers, equipped with support and test equipment and spares. During deployments it is manned with personnel from the technical support units in the Navy. This concept is used to support the smaller ships, whereas the larger ships have the ability to support themselves.

**Logistic Support Ships.** Logistic support ships will be used to re-supply SA Navy ships that are deployed at sea for extended periods where the operation does not permit them to proceed to a harbour for the required logistic support. If the ships are deployed on an AU or UN mission with other nations, their supply ships could be used in lieu of an SA Navy ship.

### **CONCLUSION**

The concept of logistic support described above, ensures that the SA Navy provides logistically supported ships to Chief of Joint Operations for employment in pursuit of achieving the Military Strategic Objectives.

## DEFINITIONS

**Insourcing:** The temporary employment of contracted staff under direct functional control and supervision of permanently appointed DOD staff. They are contracted to perform functions for which the SA Navy does either not have the staff or the expertise to carry out the functions.

**Outsourcing:** The contracting of a company or firm to execute a defined task on a temporary basis as defined in a contract agreement.

**Supply Support.** Supply Support includes all management actions, procedures and techniques used to procure, receive, store, transfer, issue and dispose of matériel. The supply of matériel includes both the provisioning of initial supplies and subsequent re-provisioning of matériel.

**Maintenance.** Maintenance includes all actions necessary for retaining, or restoring an item to a specified serviceable condition. This includes inspections, testing, classification of serviceability condition, servicing, repair, modification, overhaul, calibration and condition monitoring and recovery.

**Matériel.** Matériel is a military term that covers all functional elements necessary for the maintenance, execution and support of military activities. This logistic functional element includes the supply support and maintenance management processes that provide matériel to the operational community. For management purposes matériel is subdivided into two categories as follows:

**Category 1.** Category 1 matériel consists of matériel designed for military use or which conforms to military specifications.

**Category 2.** Category 2 matériel consists of matériel designed and developed primarily for the commercial orientated market needs. These items are used, operated and supported without any adaptation in the military operational environment.

**Logistic Services.** Logistic Services includes all actions concerning the provision of logistic related support services on a continuous basis. It includes services rendered to ensure the well-being of personnel, services rendered to satisfy military community needs, environmental services and the movement of personnel and matériel