Chapter VII

Operating Environments

Understanding the supply chain and logistics in operating environments is important to understanding the total concept, and we need to examine a new method and compare it to or examine problems of existing methods. To illustrate this, a specific example of logistics support in the aircraft industry needs to be considered; the principles however, are the same for any capital equipment project. An overview of the 3-day car programme is an interesting comparator.

Integrated Logistic Support

Integrated logistic support (ILS) is a structured and coordinated approach to support planning that will produce the most technically efficient and cost effective support solution. ILS is an American concept that was introduced by the U.S. government in an attempt to combat their spiralling support costs and to give a structured approach to support planning so as to let it influence the design process. The concept was developed and became a military standard which provides a framework that can be tailored to suit individual projects and user requirements dependant upon budgets, time scales and project size. The reason for adopting ILS is that the customer will make it a contractual requirement of the project with the aim of meeting the same objectives.
Integrated Logistic Support: Main Objectives

What is wrong with present systems, and why do we need ILS? Past problems can be grouped together to give three main objectives.

- Reduce support costs — past project support costs have risen to an unacceptable level
- Ensure support influences design — so that the product is designed to be as supportable as possible at the first attempt
- Ensure the timely development and acquisition of resources — all the required resources are to be in the right place at the right time

Reducing Support Costs

What exactly is a support cost? It is the cost, incurred by the customer, through owning and operating a product (e.g., an aircraft). It includes repairable components, technical publications, aerospace ground equipment (AGE), petrol oils and lubricants (POL), and contractor site representatives. Largest of all is the customer’s labour costs.

Previous Support Costs

As products have become more complex, support costs have risen. The effects of these high support costs seriously jeopardise the chances of a supplier being awarded further contracts.

Potential Export Contract Support Costs

An example of the effects of high support costs on circa £250 million an export contract would be useful. Assume the product is an aircraft. If we allow £20 million per aircraft, then the support costs, at present rates, come to around £111m for each aircraft. To keep costs within the customer’s budget the present support rates mean that the customer is going to be limited to eight aircraft. A fleet of eight aircraft means no better then six aircraft being available on the line — and having only six aircraft means sortie patterns of three pair or one diamond four. The effectiveness of all this in air-defence terms, in relation to the total cost, is probably not a viable defence option compared to other national budget demands.
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