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## 4.3-P6. Sparing and Lifecycle Modelling – Sustaining the International Monitoring System Network

The International Monitoring System Network will consist of 337 facilities, composed of four different technologies with a variety of designs, deployed in diverse environments around the globe. The sustainment of such a network over many generations and to high level of availability is challenging, and the cost could become unbearable. The Monitoring Facilities Support (MFS) section is already performing Logistics Support Analysis (LSA) enabling estimation of optimal sparing policies at existing facilities, as well during the design phase of new stations and when planning major upgrades. LSA also enables examination of alternative designs or maintenance policies before investing in a particular solution. In addition to ongoing modelling activities, MFS has started the preparation of lifecycle cost analysis as the next step in modelling, which could assist the PTS make decisions on resource allocation, logistics operational planning, and will ensure the reduction of Total Cost of Ownership. Initial results have been obtained and have proven the benefit of such analysis. The results of such simulations will be instrumental in validating the Integrated Logistics Support system supporting the cost-effective sustainment of the IMS network. Some initial results are presented in this poster which attempts to illustrate their present and future potential benefits.

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