Abstract

Emergency Slide raft is a component in an airplane functions as emergency rescuing when emergency landing occurs. Slide raft is considered as a no-go item, which means that if the component is not available in the airplane, the airplane will not be allowed to fly. Airplane that is allowed to fly without slide raft in the area where no slide raft is available must be emptied and this causes lost sales. Thus, provisioning of Break Down Part (BDP) that constructs slide raft component has always be available at any time and accurately to avoid suspended component, a component that cannot be overhauled or fixed. The value of the needed BDP is obtained from the multiplication of slide raft removal component in a certain period, the ratio of airplane quantity planning in a certain period (fleet plan), the value of BDP in every component, and the probability of replacement of every BDP. After the value of the needed BDP in a certain period is obtained, we control the inventory with periodic review.

This decision support system will make planner plans the needed BDP and determines the plan for buying BDP at ease. The input data in the form of removal stock, airplane quantity planning, and historical demand that is dynamic not only makes the planning of needed BDP be varied at any time but also dynamic.

Keywords: Decision Support System, provisioning, safety stock