ABSTRACT

Aeronautical Engineering Resource Management System (AERMS) was introduced to the Sri Lanka Air Force from year 2009 in order to improve the efficiency and effectiveness of aircraft maintenance management and forecasting system while maintaining Form-700 and Log books. This automated system introduced to process maintenance related data on time for efficient and effective decision making and thereby increasing the productivity of aircraft maintenance in the SLAF. By doing so it was intended to increase the sustainability and availability of aircraft which directly effects the air power capabilities of the SLAF and to maintain the air strategy of Sri Lanka successfully. Though the AERMS system has introduced to the SLAF for more than 07 years ago, it was observed that the paper based system is still used extensively along with the AERMS for managing of aircraft maintenance. Therefore, this research examines whether the objectives of implementing the AERMS to the SLAF has been achieved and whether it has improved the productivity of aircraft maintenance in the SLAF as expected.

This study analyses primary data collected from end users and secondary data available since inception. Further, interviews were conducted with personnel involved in the design and implementation phase of the system. Population size of the research is 1159 including officers and airmen who are presently using the AERMS. Out of that, 232 were selected as the sample size by using Stratified Random Sampling method. Data was collected by distributing questionnaire with survey, field visits and interviews. The results were analyzed by using histograms depicting mean and standard deviation from SPSS and Null Hypothesis was tested by calculating the significance value. During the analyzes, it was found that technical crew are not fully confident enough to operate the AERMS and work in fully automated environment. However, personnel involved in management level and decision makers have identified the benefits of the system. Further, inbuilt issues of the system including lack of user friendliness were observed by the users. Hence, this study recommends feasible solution to overcome drawbacks in operationalization of the AERMS.