



## ABSTRACT

The Sri Lanka Air Force (SLAF) is the youngest armed force in Sri Lanka. It was founded in 1951 as the Royal Ceylon Air Force. SLAF played a major role throughout the intense civil war during past three decades. Currently, SLAF operates more than 70 aircrafts and has a projected trained strength of 2364 officers and 21250 airmen/ airwomen. When considering the core competencies of the Sri Lanka Air Force, the ground vehicle fleet is very important and prominent. Hence, it is one of the main segments and it plays a key role in order to achieve the mission of SLAF.

The available vehicle fleet of SLAF needs to be expanded and upgraded to meet the current requirement. However, since the maintenance and infrastructure facilities of the Air Force has not been upgraded, it has been observed frequent breakdowns and it leads to increasing of downtime. Hence, the concept of "Outsourcing of Mechanical Transport Function" is identified as a remedial measure in order to overcome this issue.

In this study, the ultimate aim is to enhance the operational efficiency through outsourcing vehicles. Further, it is investigated to identify main root causes which leads to reduce effectiveness and efficiency of mechanical transport system in organization. Furthermore, it is investigated the ways and means to implement outsourcing of vehicles in order to enhance the effectiveness of Mechanical Transport system.

Most of the Air Force Bases, Training Schools and Units were visited to gather data related to the study. Vehicle users, operators, maintenance staff and automobile engineers were interviewed in order to obtain their views and opinions on existing Mechanical Transport

operation. A questionnaire also been distributed among 24 officers and 210 Mechanical Transport Mechanics.

It is observed that majority of the breakdowns has happened on staff vehicles. Furthermore, it was revealed that 76% (Defender/Jeep – 30%, Van – 12%, Car – 16%, Double/Single Cab – 18%) of the total cost of maintenance budget and 69% of manpower utilization on Mechanical Transport maintenance have been spent on light vehicles for the year of 2020, which accounted for 29% of the total vehicle fleet. The light vehicles are in many different models and it needs considerable time to rectify a defect and to purchase compatible spare parts.

In order to achieve the optimal utilization, two options have been recommended. The first option is to outsource the staff vehicle function and the second is to outsource the heavy maintenance in MT function. This will be a long-term solution for the main bottleneck in the MT functions in the SLAF.

This may prove to be a turning point for the future development of MT in SLAF as well as Fa means of successful implementation of the concept of outsourcing too. This will be a cost saving effort and will uplift the serviceability of vehicles through proper maintenance. Hence, the effort will contribute to the overall operational efficiency of the SLAF.