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MALAYSIA AIRPORT RUNWAY MAINTENANCE PERFORMANCE

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ABSTRACT

In recent years, civil aviation has experienced intense growth, regional or peripheral airports have been built or expanded to operate new routes. Airports are a part of the world transportation network. Huge investments are made annually for airport runway construction, maintenances, and rehabilitations. Therefore, the aim of this research is to study on Malaysia airport runway maintenance performance. To accomplish the aim of the research, the objectives of this research are to identify the surface failure for airport runway, to identify factor affecting performance of airport runway and, to identify standard maintenance performance criteria for airport runway. The data were collected from 66 respondents among the consultant and contractor that involved in construction and maintaining airport runway. From the data analysed, the respondents agreed that cracking is the often and most surface failure that occurs on runway compared to other surface failure and the load factor are the main factor that affecting the runway performance. The surface failure should be identified to provide better maintenance schedule for the runway. From the research, it shows that maintaining work for runway difficult to construct due to some reason. Therefore, a proper monitoring procedure should be highlighted by upgrading the outdated management practices that relevant with airport location itself. This is because different airport may come up with different problems. By doing this, the problems encountered at airport runway can be avoided in the future. Hence, the capital needs for maintaining will be sufficient for future undertakings.

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CHAPTER 1

INTRODUCTION

1.0 BACKGROUND RESEARCH

Runway is one of the important facilities for every airport. The runway's functions include ensuring aircraft operations' safety and providing comfort for passengers on board. Structure of runway must be good and strong to withstand the pressure released by the aircraft when the aircraft having an operation like take-off, landing and taxing so that the runway will not be harm easily. According to Tamagusko (2020), aviation industries are having intense growth due to many developments of airport construction and expansion of airport to operate new routes.

According to Applied Research Associates (ARA) (2011), from the finding obtained, there are 6 failure of criteria that frequently occurs at airport pavement which are crack, depression, rutting, shoving, potholes, and upheaval. From the study obtained, it can identify that most of the failure criteria that occur at airport in Malaysia is due to the extreme weather conditions and aircraft's load. Hence, some of the airport is prone to extreme weather conditions.