FINAL YEAR PROJECT REPORT ADVANCED DIPLOMA IN CIVIL ENGINEERING SCHOOL OF ENGINEERING MARA INSTITUTE OF TECHNOLOGY SHAH ALAM, SELANGOR D.E.

A CASE STUDY ON METHODS USED IN THE DESIGN OF AIRPORT PAVEMENTS

BY HANIZAN BIN MA'AROF NOV 1993 **ACKNOWLEDMENT**

The author wishes to express his sincere gratitude to his project advisors,

Ir. Ibrahim Kamaruddin for the guidance, consultations and the

encouragement given in making this study a successful venture.

Aknowledment is due to all the Malaysian Airport Berhad and Malaysian

Airlines System staffs who willingly extended their help when required

during the course of this study.

Lastly, the author wishes to express deepest appreciation to those who

helped directly or indirectly, in completing this study.

Hanizan Ma'arof

(Nov. 1993)

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SYNOPSIS

Overall, this study consists of the evaluation and the comparison of the various methods used in the design of airfield pavement. The methods are:-

- 1) Corps of Engineers CBR analysis
- 2) Federal Aviation Administration (FAA).

All the main inputs design such as aircraft weights, aircraft configurations, the CBR value for the subgrade, materials types etc are being analyse and calculate due to the various method above.

CHAPTER ONE

INTRODUCTION

1.1 General.

The rapid development of aircraft types in recent years has had a profound effect on pavement design concept. Design engineers have uppermost in their mind the effect of vehicular traffic upon pavement structure.

The design of airfields (airports) involves a study of the effect of the pavement upon the aircraft as well as the effect of the aircraft on the pavement. Types of aircraft load is one of the factors which affect the design of airfield pavement. Airport pavement are exposed to a much wider potential range in gross aircraft weights as compared to the effect of vehicular weights on highway pavement. As many airfield designs may be based upon a 20-30 life expectancy, the designer may be faced with the problem of selecting critical aircrafts that may not be in the planning phase of the aircraft industry.