

CHAPTER I

INTRODUCTION

1.1. Background

Airport is one of the most important transportation media. Role of the airport is for meet point of flights network and flights route. The airport needs very huge area to support the airport planes runway, apron, and the terminal of the airport.

Yogyakarta now is having the airport for commercial needed which is Adisutjipto International Airport. The airport located at Jl. Raya Solo KM 9. Location of the Yogyakarta airport is located inside the center of city which means the crowidity and the intensity of activity is very high, the location radius of airport area also surrounded by the high level building which means the airport place becomes feasible by now.

Adisutjipto airport only has 7 parking stand and was built in 1938 for the Netherlands military activities. For the province level, the airport role for the city activity is very important. Yogyakarta Adisutjipto airport incapacity in handling the planes can cause tardiness of flight schedule which impacts for the other flights. The goverment now is constructing the new airport in Kulon Progo as the solution in Yogyakarta airport problems.

Yogyakarta new airport located at Temon, Kulon Progo. The new airport will have more aprons to accommodate more planes which is being the problem in Adisutjipto airport. Also, the New Yogyakarta International airport have longer runway. New Yogyakarta International airport has different runway and apron

design and the material. The new airport runway design will be the main case of this analysis.

1.2. Problem Statement

The number of passenger now is increasing and not balanced with the condition and capacity of Adisutjipto International Airport. Therefore it is needed to build a new airport to sustain the needs of passengers in capacity and condition due to the Adisutjipto International Airport is not available to do the improvement.

The new airport is not yet constructed. It is planned to accomodates Boeing 747-400. The design must be pair with the International Civil Aviation Code about the design for Boeing 747-400. For that, it is need to be an evaluate about the design of runway that pair with the planned plane.

1.3. Problem Limitation

This study will be conducted on the scope:

1. The design on the runway of the New Yogyakarta International Airport.
2. Design is on the air side geometry covers runway, taxiway, and apron.
3. Model of plane that used for the reference is Boeing 747-400.
4. Some of the data availability will be based on Adisujipto airport.

1.4. Research Aims

The purpose of this final project writing is to design the air side facilities for aircraft type B747-700 since it is never operated in Yogyakarta. Also is to increase the service and can be upgraded and function effectively in accordance with applicable standards.

1.5. Originality

The topic “The Design of Runway of New Yogyakarta International Airport Runway” has never been used in any other final project before. Therefore, there has never been any attempt to conduct a similar research. This final project will be a new research in its attempt to identify the runway in Yogyakarta new airport.

