

***EVALUATION OF GEOMETRIC AND APRON FOR THE LONGTERM
CONDITION OF SULTAN BABULLAH TERNATE AIRPORT.***

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ABSTRACT

Considering the great increase of passengers and the airplane traffic, the Sultan Baabullah Ternate Airport - North Maluku is demanded to give a more optimum service. Using geometric assessment on runway and apron airplane type B 737-400, as the planning type, it is expected to give the airport operational performance as an effort to anticipate the development in the future.

Geometric assessment on runway and apron is conducted to measure the length of the runway and apron capacity that matches the needs based on the planning airplane, which is B 737-400. This paper uses ICAO (International Cooperation Aviation Organization) and FAA (Federal Aviation Association) methods.

The analysis result shows that the length of runway that is needed for airplane type B 737-400 is 2.100 m, while the existing length of runway is 1.850 m. The width of runway according to ICAO and FAA standard is 30 m, the same with the existed landing field (runway). While the width of the taxiway according to ICAO and FAA standard by using planned airplane type B 737-400 is 15 m, narrower than the existed taxiway that is 23,0 m. The existed apron dimension before B 737-400 airplane is 180 m in length and 60 m in width. Using the planning airplane for the next 20 years, the apron dimension is 253 m in length and 125 m in width.

Keywords : Airport, airplane type B 737-400, geometric assessment, runway, and apron.