

PERENCANAAN RUNWAY, TAXIWAY, DAN APRON BANDAR UDARA JALALUDIN GORONTALO

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ABSTRAK

Penelitian ini bermaksud untuk mengetahui kondisi dari pergerakan lalu lintas penumpang, pesawat dan kargo dengan menganalisa kondisi eksisting sisi udara (air side) runway, taxiway, dan apron serta perencanaan dimensi sisi udara untuk pesawat rencana Boeing 747-400.

Tahapan penelitian dan analisis dimulai dengan menganalisa pergerakan lalu lintas bandar udara. Tahapan ini terdiri dari: Pertama, mengevaluasi kondisi eksisting dan kedua, merencanakan dimensi sisi udara yang sesuai dengan pesawat rencana. Tahapan analisis dan perencanaan geometrik menggunakan metode International Civil Aviation Organization (ICAO).

Hasil evaluasi menunjukkan bahwa dimensi sisi udara untuk kondisi eksisting adalah runway panjang 2705 meter dan lebar 45 meter, taxiway lebar 20 meter, apron panjang 275 meter dan lebar 95 meter. Hasil perencanaan sisi udara untuk pesawat rencana Boeing 747-400 adalah: runway panjang 3848 meter lebar 60 meter, taxiway lebar 27,4 meter, exit taxiway panjang 2214 meter dan dimensi apron panjang 342,5 meter lebar 175 meter. Dapat disimpulkan bahwa kondisi pergerakan lalu lintas bandar udara pada kondisi eksisting tidak memenuhi, sehingga perencanaan dimensi sisi udara untuk pesawat rencana harus dilakukan penambahan dimensi mengikuti persyaratan yang telah ditetapkan oleh ICAO.

.Kata kunci: Runway, Taxiway, Apron, Boeing 747-400

ABSTRACT

This research was designed to determine the condition of the movement of passenger traffic, aircraft and cargo by analyzing the existing condition of the air side, runway, taxiway and apron as well as air side-dimensional planning for Boeing 747-400 aircraft.

To begin with, the movement of aerodrome traffic was evaluated. This step consists of: First, evaluating the existing condition and second, planning the dimensions of the air side in accordance with the planned aircraft. Both steps of analysis and geometric planning refer to the methods of International Civil Aviation Organization (ICAO).

As a result, the evaluation shows that the dimensions of the air side of the existing condition are runway length of 2705 meters and a width of 45 meters, taxiway with a width of 20 meters, and apron length of 275 meters and width of 95 meters. The results of the planning of the air side for the dimensions of the planned aircraft Boeing 747-400 are: Runway length of 3848 meters with a width of 60 meters, taxiway width of 27.4 meters, exit taxiway length of 2214 meters, and the apron length of 342.5 meters and a width of 175 meters. The results indicate, overall, that the condition of the existing aerodrome traffic movement is inadequate, so the planning of the air side for the planned aircraft's dimensions should be increased to meet the requirements set by the ICAO.

Keywords: Runway, Taxiway, Apron, Boeing 747-400