



INTISARI

Semakin meningkatnya jumlah peminat penumpang angkutan udara memaksa produsen dan maskapai penerbangan melakukan *upgrading pesawat*. *Upgrading* dilakukan dengan penambahan pesawat berdimensi besar. Perubahan kondisi tersebut akan mempengaruhi geometrik dan lokasi dari fasilitas sisi udara, salah satu yaitu pada *exit taxiway* karena *exit taxiway* mempunyai peran penting dalam peningkatan jumlah pergerakan pesawat. Penelitian ini dilakukan untuk menganalisis geometrik *exit taxiway*, mengevaluasi lokasi *rapid exit taxiway*, dan membandingkan desain eksisting dengan hasil analisis.

Analisis geometrik *exit taxiway* dilakukan berdasarkan metode yang terdapat dalam ICAO *Aerodrome Design Manual* dan FAA AC 150/5300-13A. Untuk analisis lokasi *exit taxiway* didasarkan pada beberapa perhitungan menurut FAA, ICAO, Horonjeff, dan karakteristik pesawat untuk perancangan bandar udara. Penentuan lokasi dipilih dengan menggunakan kondisi *runway* basah untuk menentukan jarak *rapid exit taxiway* dari *threshold*.

Berdasarkan penelitian diperoleh hasil bahwa *exit taxiway* S1 dan S9 tidak memenuhi standar geometrik sebagai *entrance taxiway* berdasarkan persyaratan FAA. *Exit taxiway* sisi selatan memiliki dimensi *fillet* yang kurang memadai untuk mengakomodasi pesawat rencana dengan kategori TDG 6. Lokasi *exit taxiway* sisi selatan berdasarkan perhitungan yang dilakukan sudah memenuhi standar lokasi *exit* pesawat sesuai dengan kondisi yang ada yang dilapangan. Untuk mengakomodasi pesawat yang lebih besar harus dilakukan pelebaran dimensi *fillet*.

Kata kunci: geometrik, lokasi, *exit taxiway*



ABSTRACT

The increasing in numbers of passenger on air transportation forced aircraft manufacturers and airlines to upgrade their aircraft. Upgrades were done with the addition of a large-dimensional aircraft. This would affect the geometric condition and location of the air side facilities, one in particular is the exit taxiway because it has an important role in increasing the number of aircraft movements. This study was conducted to determine the geometric exit taxiway, evaluate the location of rapid exit taxiway, and compare the design existing with the analysis.

The geometric analysis of the exit taxiway is based on the methods in ICAO Aerodrome Design Manual and FAA AC 150 / 5300-13A. For the analysis of the location of the taxiway exit is based on calculations according to FAA, ICAO, Horonjeff, and aircraft characteristics for airport design. The determination of the locations are selected by using wet runway conditions to determine the distance of rapid exit taxiway from the threshold.

Based on the research, it was found that exit taxiway S1 and S9 did not meet the geometric standard as entrance taxiway based on FAA requirement. The south side exit taxiway has inadequate fillet dimensions to accommodate plan aircraft in the TDG category 6. The location of the southern exit taxiway based on calculations meets the standard of aircraft's exit location according to the existing conditions. The taxiway's fillet dimensions should be increased to accommodate a larger airplane.

Key words: goemetric, location, exit taxiway