

ABSTRAK

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Program Studi : Teknik Sipil

Judul : Kajian *Rapid Exit Taxiway* di Bandar Udara *International New*
Bintan Dengan *Three Segments Method*

Pembimbing : Barkah Wahyu W, S.T., M.T.

Rapid exit taxiway memiliki peranan yang cukup penting dalam melancarkan pergerakan pesawat saat akan keluar runway. Lokasi *rapid exit taxiway* berpengaruh terhadap waktu yang dibutuhkan pesawat untuk keluar runway. Penelitian ini bertujuan untuk mengkaji lokasi *rapid exit taxiway* untuk pesawat rencana dan pergerakan pesawat yang mendarat di Bandar Udara *International Hang Nadim* yang diasumsikan akan mendarat di Bandar Udara *International New* Bintan serta persentase kegunaan dari setiap titik *rapid exit taxiway*. Standar yang digunakan dalam penelitian ini yaitu standar ICAO, Annex 14, *Aerodrome Design Manual Part 2 (Fourth Edition, 2005)* dan KP 262 tahun 2017 tentang *Manual of Standard CASR – Part 139*. Metode perhitungan untuk mencari lokasi *rapid exit taxiway* menggunakan *three segments method*. Hasil kajian dari penelitian didapatkan lokasi *rapid exit taxiway* dari runway 04 yaitu RET RW 04 (1) sejauh 2277 m dan RET RW 04 (2) sejauh 2937 m, sedangkan lokasi *rapid exit taxiway* dari runway 22 yaitu RET RW 22 (1) sejauh 2309 m dan RET RW 22 (2) sejauh 2936 m. Persentase kegunaan setiap *rapid exit taxiway* yang dikaji yaitu sebesar 5% untuk RET RW 22 (2), 45% untuk RET RW 22 (1), 47% untuk RET RW 04 (1), dan 3% untuk titik RET RW 04 (2).

Kata kunci: *three segments method*, *rapid exit taxiway*, persentase kegunaan *taxiway*.

ABSTRACT

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Study Program: Civil Engineering

Title : *Rapid Exit Taxiway Study at International New Bintan Airport with
Three Segments Method*

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Rapid exit taxiway has an important role in launching aircraft movements when going out of the runway. The location of the rapid exit taxiway affects the time taken by the aircraft to exit the runway. This study aims to examine the location of rapid exit taxiways for planes and aircraft movements that land at Hang Nadim International Airport which are assumed to land at New Bintan International Airport and the percentage of use of each point of rapid exit taxiway. The standards used in this study are ICAO, Annex 14 standard, Aerodrome Design Manual Part 2 (Fourth Edition, 2005) and KP 262 of 2017 about Manual of Standard CASR – Part 139. The calculation method for finding the location of rapid exit taxiways uses three segments method. The results of the study found that the location of rapid exit taxiway from runway 04 is RET RW 04 (1) as far as 2277 m or RET RW 04 (2) as far as 2937 m, while the location of rapid exit taxiway from runway 22 is RET RW 22 (1) as far as 2309 m or RET RW 22 (2) as far as 2936 m. The percentage of use of each rapid exit taxiway studied is 5% for RET RW 22 (2), 45% for RET RW 22 (1), 47% for RET RW 04 (1), and 3% for RET RW 04 (2).

Keywords: *three segments method, rapid exit taxiway, usability percentage taxiway.*