PERANCANGAN *PROCEDURE TURN* UNTUK *TAKE OFF* DAN *LANDING* MENGGUNAKAN METODE *PROCEDURE TURN* PENERBANGAN *VISUAL FLIGHT RULES* PADA LAPANGAN TERBANG GADING

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Abstrak

Jasa transportasi udara membuat perjalanan menajadi sangat cepat dan efisien terutama untuk perjalanan yang sangat jauh Dengan pertimbangan yang menguntungkan untuk perkembangan ekonomi di daerah wonosari yang menitik beratkanan pada industri pariwisata maka pengembangan Bandara di Gunung Kidul itu, dinilai sangat penting sebagai second airport. Bandar Udara Gading Wonosari yang belum memenuhi standar ideal untuk keamanan penerbangan. Karena belum memiliki instrument navigasi minimum untuk mekalukan kegiatan landing dan take-off. Oleh karena itu maka perlunya pengadaan alat navigasi maupun prosedur penerbangan di Bandar udara tersebut. Maka dari itu peneliti mencoba mengkaji tentang (1) dimensi landas pacu bandar udara Gading Kidul sebagai syarat pengoperasian penerbangan sipil sesuai dengan regulasi penerbangan sipil. (2)membuat pemetakan ketinggian permukaan daratan area operasi bandar udara Gading sebagai referensi batas Minimum Safe Altitude (MSA) untuk penerbangan visual. (3)melakukan perancangan prosedur takeoff dan prosedur landing untuk penerbangan visual di bandar udara Gading Gunung Kidul.

Mengacu pada Basic Operation Manual (BOM) Garuda Indonesia &Company Operational Manual (COM) Merpati Nusantara Airlines Point 1.11.3 General Performance tentang Take-off field length, maka penulis melakukan penelitian di Lapangan Terbang Gading.Observasi yang dilakukan peneliti adalah dengan mengukur tekanan udara pada daerah yang diobservasi. Selisih tekanan udara yang terukur terhadap tekanan udara di runway. Mengacu referensi "Meteorology for Pilot & Flight Dispatcher" (Lukito-2016) disebutkan bahwa tekanan udara berkurang secara relative linier sebesar 1 mbar untuk setiap kenaikan ketinggian 29,1667 feet hingga lapisan atmosphere thropopause. Penulis menggunakan rujukan IVAO untuk membuat procedure turn di Lapangan Terbang Gading tersebut.

*Setelah dilakuan analisis maka dapat disimpulkan bahwa (1) Dimensi runway untuk tinggal landas dan pendaratan secara visual di Lapangan Terbang Gading adalah **p**anjang landasan 1400 meter**,**lebar landasan 45 m, tidak ada Stop way **,**Clearway lahan seluas 500 feet**,**Takeoff Run Available 1.400 meter**,**Ascelerate Stop Distance Available 1.400 meter,dan Takeoff Distance Available 1552 meter.(2)Pemetakan dilakukan dengan 40 titik koordinat yg terbagi menjadi 2 are, yakni area A dan B(3)Hasil perancangan dapat didapatkan ada 3 buah Category Pocedure Turn yg bisa dilaksanakan di Lapangan Terbang Gading, yakni Category A, Category B dan, Category C.*

Kata Kunci: Visual Filght Rules.Procedure turn, Takeoff, Landing.

PROCEDURE TURN DESIGN FOR TAKE OFF AND LANDING USING PROCEDURE TURN METHOD FOR FLIGHT VISUAL FLIGHT RULES ON GADING AIRFIELD

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Abstract

Air transportation services make travel extremely fast and efficient, especially for very long trips. With favorable considerations for the economic development in the wonosari region that focuses on the tourism industry, the development of the airport in Gunung Kidul is considered very important as a second airport. Gading Wonosari Airport which does not meet the ideal standards for aviation security. Because it does not yet have a minimum navigation instrument to embed landing and take-off activities. Therefore, it is necessary to procure navigation equipment and flight procedures at the airport. Therefore the researcher tried to examine about (1) the dimensions of the Gading Kidul airport runway as a condition of the operation of civil aviation in accordance with the regulations of civil aviation. (2) making land surface mapping of the Ivory airport operating area as a reference for the Minimum Safe Altitude (MSA) for visual flights. (3) designing takeoff procedures and landing procedures for visual flights at Gading Gunung Kidul airport.

Referring to the Garuda Indonesia Basic Operation Manual (BOM) & Company Operational Manual (COM) of Merpati Nusantara Airlines Point 1.11.3 about General Performance on Take-off field length, the authors conducted research at Gading Airfield. The observation conducted by researchers was to measure air pressure on observed area. Difference in air pressure measured against air pressure on the runway. Referring to the reference of "Meteorology for Pilot & Flight Dispatcher" (Lukito-2016), it is stated that the air pressure decreases relatively linearly by 1 mbar for every 29,1667 feet height increase to the thropopause atmosphere layer. The author uses the IVAO reference to make the procedure turn at the Ivory Airfield.

After the analysis, it can be concluded that (1) runway dimensions for visual takeoff and landing at airfield are 1400 meters runway length, runway width 45 m, no Stop way, Clearway of 500 feet of land, Takeoff Run Available 1,400 meters , 1,400 meters of Ascelerate Stop Distance Available, and 1552 meters of Takeoff Distance Available. (2) The mapping is done with 40 coordinate points which are divided into 2 areas, namely areas A and B (3) Design results can be obtained with 3 Category Pocedure Turns that can implemented in Gading Airfield, namely Category A, Category B and Category C.

Keywords: Visual Filght Rules.Procedure turn, Takeoff, Landing.