ANALISIS PERBANDINGAN PENURUNAN PERFORMA TAKEOFF BOEING 737-800NG DAN BOEING 737-900ER SAAT BEROPERASI DI BANDAR UDARA INTERNASIONAL JENDERAL AHMAD YANI SEMARANG

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ABSTRAK

Pesawat Boeing 737-800NG dan Boeing 737-900ER banyak dioperasikan oleh maskapai-maskapai di Indonesia salah satunya Lion Air dan Garuda Indonesia. Saat dioperasikan di Bandar Udara yang memiliki spesifikasi panjang landasan, ketinggian landasan, rintangan landasan, dan kemiringan landasan pesawat akan mengalami perubahan performa takeoff dalam berat maksimum pesawat antara lain Maksimum Takeoff Weight, kapasitas muat, dan under load.

Untuk penentuan Maksimum Takeoff Weight menggunakan metode penarikan garis pada grafik Flight Planning and Performance Manual (FPPM B737-800NG dan B737-900ER) dengan menggunakan data-data hasil penelitian berupa data primer dan data sekunder, seperti spesifikasi runway, kecepatan dan arah angin, dan data pergerakan penumpang yang menggunakan pesawat jenis Boeing 737-800NG dan Boeing 737-900ER maskapai Garuda Indonesia dan Lion Air.

Dari hasil penelitian di dapatkan bahwa beberapa pesawat yang beroperasi memiliki penurunan dalam Takeoff Weight by Structure dan by Performance. Penyebab terjadinya penurunan pada penelitian ini karena terjadi perbedaan kondisi suhu udara, runway yang basah (wet runway), dan kondisi angin dalam keadaan tail wind.

Kata kunci: Runway Length, Runway Strength, Runway Slope, Obstacle Runway, Takeoff Weight by Structure, Takeoff Weight by Performance.

COMPARISON ANALYSIS OF 737-800NG AND BOEING 737-900ER DECREASING PERFORMANCE TAKEOFF BOEING WHEN OPERATING IN JENDERAL AHMAD YANI SEMARANG INTERNATIONAL AIRPORT

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ABSTRACT

Many Boeing 737-800NG and Boeing 737-900ER aircraft are operated by airlines in Indonesia, one of which is Lion Air and Garuda Indonesia. When operated at an airport that has runway length spesifications, runway obstacle, runway slope, runway elevation, and aircraft runway strength will experience a decrease in takeoff performance, Maximum Takeoff Weight, load capacity and under load.

To determine the Maximum Takeoff Weight using the line drawing method in the graphs of the Flight Planning and Performance Manual (FPPM Boeing 737-800NG and Boeing 737-900ER) using the results of research data in the form of primary data and secondary data, such as runway characteristics, wind speed and direction, and movement data of passengers using Boeing 737-800NG and Boeing 737-900ER type aircraft Garuda Indonesia and Lion Air.

From the results of the study, it was found that several aircraft operating had a decrease in Takeoff Weight by Structure and by Performance. The cause of the decline in this study was due to differences in air temperature conditions, wet runways, and wind conditions in wind tail.

Keywoard: Runway Length, Runway Strength, Runway Slope, Obstacle Runway, Takeoff Weight by Structure, Takeoff Weight by Performance.