

**ANALISIS UJI KELAYAKAN RUNWAY DALAM OPERASIONAL  
PESAWAT AIRBUS A330-900 UNTUK PENERBANGAN UMRAH  
MASKAPAI LION AIR DI BANDAR UDARA INTERNASIONAL  
ADI SOEMARMO SURAKARTA**

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**ABSTRAK**

*Moda transportasi udara semakin digemari masyarakat modern karena dianggap lebih efektif dan efisien dalam segi waktu tempuh dan fleksibilitas tujuan. Maskapai Lion Air sebagai operator penerbangan menyatakan bahwa akan menghentikan operasional pesawat Boeing B747-400 (PK-LHG) dan akan menggantikannya dengan pesawat baru Airbus A330-900 yang direncanakan untuk melayani penerbangan umrah direct flight rute Surakarta-Jeddah. Sebagai follow-up dari fenomena tersebut penulis meneliti tentang uji kelayakan runway Bandar Udara Internasional Adi Soemarmo pada saat Maximum Take-Off Weight sebagai perencanaan operasional pesawat Airbus A330-900 untuk direct flight penerbangan umrah rute Surakarta-Jeddah yang saat ini memiliki spesifikasi runway sepanjang 2600m×45m, serta memiliki kekerasan runway 68/F/C/X/T.*

*Metode yang digunakan pada penelitian ini yaitu menggunakan metode ARFL (Aerodrome Reference Field Length) dan metode ACN-PCN (Aircraft Classification Number-Pavement Classification Number).*

*Dari hasil pengolahan data didapatkan kesimpulan bahwa Bandar Udara Internasional Adi Soemarmo hanya dapat menerima beban pesawat Airbus A330-900 sebesar 175.700 Kg dari Maximum Take-Off Weight pesawat yaitu 251.000 Kg, dengan persentase sebesar 70,1% saja. Sedangkan kekerasannya dapat menahan beban pesawat tersebut sebesar 228.197 Kg. Sehingga ditarik kesimpulan bahwa Bandara Internasional Adi Soemarmo tidak layak untuk mengoperasikan pesawat Airbus A330-900 dengan Maximum Take-Off Weight.*

**Kata Kunci :** Airbus A330-900, Bandara Adi Soemarmo, MTOW, ICAO, ARFL

***RUNWAY FEASIBILITY TEST ANALYSIS IN AIRBUS A330-900  
OPERATIONAL AIRCRAFT FOR FLIGHT LION AIRLINES FLIGHTS IN  
ADI SOEMARMO AIRPORT INTERNATIONAL AIRPORT***

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***ABSTRACT***

*Modes of air transportation are increasingly favored by modern society because they are considered more effective and efficient in terms of travel time and destination flexibility. The airline Lion Air as the airline operator stated that it would suspend operations of the Boeing B747-400 (PK-LHG) and would replace it with a new Airbus A330-900 aircraft planned to serve Umrah direct flight flights on the Surakarta-Jeddah route. As a follow-up of this phenomenon, the author examines the feasibility test of the Adi Soemarmo International Airport runway at the time of Maximum Take-Off Weight as operational planning for an Airbus A330-900 aircraft for direct flight flights on the Surakarta-Jeddah route, which currently has runway specifications of 2600m × 45m, and has a 68 / F / C / X / T runway hardness.*

*The method used in this study is using the ARFL (Aerodrome Reference Field Length) method and the ACN-PCN (Aircraft Classification Number-Pavement Classification Number) method.*

*From the results of data processing, it can be concluded that Adi Soemarmo International Airport can only receive an Airbus A330-900 aircraft load of 175,700 Kg from the aircraft's Maximum Take-Off Weight, which is 251,000 Kg, with a percentage of 70.1%. While the violence can withstand the weight of the aircraft amounting to 228,197 kg. So the conclusion is drawn that Adi Soemarmo International Airport is not fit to operate an Airbus A330-900 aircraft with Maximum Take-Off Weight.*

***Keywords:*** Airbus A330-900, Adi Soemarmo Airport, MTOW, ICAO, ARFL