

ABSTRAK

Judul: Analisa Kebutuhan Perawatan Perkerasan Runway Selatan Bandar Udara International Soekarno – Hatta. Jawa Barat, Nama : Anugrah Rizki Ramadhani, Nim : 41119010037, Dosen Pembimbing : Ir. Aditia Kesuma Negara D,M.Sc, IPM, ASEAN Eng, 2023.

Latar belakang penelitian ini dikarenakan meningkatnya pergerakan pesawat dapat mempengaruhi kondisi perkerasan pada landasan pacu, hal ini sering terjadi kerusakan di Runway Selatan dikarenakan faktor umur rencana pada perkerasan kaku yang sudah renta dari tahun 1984 dan belum ada perbaikan atau rekonstruksi dalam skala besar selama 30 tahun dibanding pada kondisi Runway Utara dan Runway 3 yang menggunakan perkerasan lentur dengan umur rencana yang tidak melebihi batas. Hampir setiap hari di Runway Selatan dilakukan perbaikan karena sering terjadi kerusakan pada perkerasan yang dapat membahayakan keselamatan penumpang serta mengganggu aktifitas penerbangan, maka perlu dilakukannya evaluasi kondisi perkerasan dan manajemen kebutuhan perawatan dan perbaikan. Peneliti ingin melakukan penelitian lebih lanjut permasalahan dengan menggunakan metode PCI (Pavement Condition Index) dan IRI (International Roughness Index). Tujuan dari penelitian ini untuk mengetahui kondisi permukaan landasan pacu di Runway Selatan sebagai acuan untuk kebutuhan penanganan lebih tepat. Metode penelitian ini dilakukan dengan cara observasi pengumpulan data nilai kerusakan dan nilai kerataan permukaan landasan pacu yang bersifat data primer dan data sekunder. Hasil observasi dan tinjauan penelitian didapatkan rata-rata nilai PCI Runway Selatan adalah 36,5 dikategorikan sangat buruk (very poor) sedangkan nilai rata – rata kondisi IRI adalah 3,377 dengan kategori sangat baik (very good). Kebutuhan perawatan kondisi eksisting Runway Selatan harus segera dilakukan program rekonstruksi dengan metode overlay agar menunjang kenyamanan, dan keselamatan penumpang sesuai dengan standar operasional bandar udara.

Kata kunci : *Kondisi perkerasan landasan pacu, Pavement Condition Index (PCI), International Roughness Index (IRI), Kebutuhan penanganan perawatan metode PCI dan IRI.*

ABSTRACT

Title: Analysis of Pavement Maintenance Needs for South Runway Soekarno – Hatta International Airport. West Java, Name : Anugrah Rizki Ramadhani, Student Name : 41119010037, Supervisor : Ir. Aditia Kesuma Negara D, M.Sc, IPM, ASEAN Eng, 2023.

The background of this research is due to the increased movement of aircraft can affect the condition of the pavement on the runway, this is often the case with damage on the South Runway due to the design age factor on the rigid pavement which is old from 1984 and there has been no repair or reconstruction on a large scale for 30 years compared to on the conditions of North Runway and Runway 3 which use flexible pavement with a design life that does not exceed the limit. Repairs are carried out almost every day on the South Runway because pavement damage often occurs which can endanger passenger safety and disrupt flight activities, so it is necessary to evaluate pavement conditions and manage maintenance and repair needs. Researchers want to conduct further research on the problem using the PCI (Pavement Condition Index) and IRI (International Roughness Index) methods. The purpose of this study was to determine the condition of the runway surface on the South Runway as a reference for the need for more precise handling. This research method was carried out by observing the collection of data on the value of damage and the value of the surface flatness of the runway which are primary data and secondary data. The results of observations and research reviews showed that the average PCI score for South Runway was 36.95 which was categorized as very poor (very poor) while the average value for IRI conditions was 3.377 which was categorized as very good (very good). The need for maintenance of the existing condition of the South Runway must immediately be carried out by a reconstruction program using the overlay method to support passenger comfort and safety in accordance with airport operational standards.

Keywords : *Condition of runway pavement, Pavement Condition Index (PCI), International Roughness Index, Maintenance treatment using PCI and IRI methods.*