

**DESAIN TEBAL PERKERASAN LENTUR RUNWAY 3
BANDARA INTERNASIONAL SOEKARNO-HATTA DENGAN
METODE *LCN*, *CBR* DAN *FAA***

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ABSTRAK

Perencanaan tebal perkerasan landas pacu dapat dianalisis menggunakan metode *LCN* (*Load Classification Number*), *CBR* (*US. Corporation of Engineers*) dan *FAA* (*Federal Aviation Administration*). Tujuan dilakukannya studi ini adalah untuk menganalisis tebal perkerasan landas pacu ketiga di Bandara Internasional Soekarno-Hatta dengan menggunakan ketiga metode tersebut.

Perencanaan perkerasan dengan metode *LCN* membutuhkan nilai *ESWL* (*Equivalent Single Wheel Load*) dan tekanan roda pesawat rencana untuk mendapatkan nilai *LCN* pesawat. Tebal perkerasan dapat diperoleh dengan grafik hubungan nilai *LCN* dan *CBR*. Untuk metode *CBR* membutuhkan nilai *ESWL* (*Equivalent Single Wheel Load*) dan tekanan roda pesawat rencana juga, namun perlu menghitung volume lalu lintas 20 tahun ke depan. Tebal perkerasan diperoleh menggunakan rumus dan grafik tebal perkerasan. Untuk metode *FAA* menggunakan *software FAARFIELD* di mana prosesnya membutuhkan data keberangkatan tahunan pesawat, tingkat pertumbuhan pesawat dan *CBR* tanah dasar.

Hasil analisis diperoleh tebal perkerasan dengan metode *LCN* (*Load Classification Number*) sebesar 82 cm, metode *CBR* (*US. Corporation of Engineers*) sebesar 103 cm, dan metode *FAA* (*Federal Aviation Administration*) sebesar 94.5 cm.

Kata Kunci : landas pacu, *LCN*, *CBR*, *FAA*, *FAARFIELD*

***DESIGN THICK OF FLEXIBLE PAVEMENT THIRD RUNWAY
SOEKARNO-HATTA INTERNATIONAL AIRPORT WITH THE
LCN, CBR AND FAA METHOD***

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ABSTRACT

Planning runway pavement thickness can be analyzed using the LCN method (Load Classification Number), CBR method (US. Corporation of Engineers) and FAA method (Federal Aviation Administration). The purpose of doing this study was to analyze thick pavement third runway at Soekarno-Hatta International Airport using the third method.

The planning of the pavement with LCN method requires values of ESWL (Equivalent Single Wheel Load) and the tire pressure of aircraft design to get the value of the LCN. Thick pavement can be obtained with the graph of the relationship of the value of the LCN and CBR. For CBR method requires values of ESWL (Equivalent Single Wheel Load) and the tire pressure of aircraft design, but also need to calculate the volume of traffic 20 years into the future. Thick pavement obtained using formulas and graph of thick pavement. For FAA method with FAARFIELD software where the process requires annual departure aircraft, annual growth aircraft and CBR subgrade.

Analysis of the results obtained with the LCN method (Load Classification Number) pavement thickness of 82 cm, CBR method (US. Corporation of Engineers) with 103 cm, and the method of the FAA (Federal Aviation Administration) with 94.5 cm.

Keywords: runway, LCN, CBR, FAA, FAARFIELD