

Lanud Adisutjipto selaku pelaksana pendidikan kedirgantaraan terus berupaya untuk meningkatkan performa mesin pesawat dan mewujudkan prinsip *zero accident*, *zero defect* dan *zero breakdown* untuk menghindari terjadinya *insiden* dan *accident* terhadap pesawat latih TNI AU yang bermarkas di Lanud Adisutjipto melalui pemeliharaan yang efektif dan efisien. Penelitian ini menganalisis kegiatan pemeliharaan pesawat latih jenis KT-1B Wongbee yang dilaksanakan oleh TNI AU (Skadron Teknik 043 Lanud Adisutjipto) dengan pendekatan model *Overall Equipment Effectiveness* (OEE) dan menganalisis biaya pemeliharaan pesawat latih KT-1B Wongbee sesuai dengan *Life Cycle Cost* (LCC) menggunakan program Ms. Excel dalam penghitungannya. Penghitungan ini menggunakan data biaya operasional, biaya pemeliharaan dan penggantian komponen, serta biaya energi selama umur ekonomis pesawat.

Hasil penghitungan nilai *Overall Equipment Effectiveness* (OEE) sebesar 71.40% berarti nilai tersebut dibawah batas standar *world class* yaitu 85%. Perhitungan biaya pemeliharaan menggunakan metode *Life Cycle Cost* (LCC) didapat total LCC sebesar Rp1.740.618.233.886,37, dengan biaya investasi awal sebesar Rp.1.320.848.571.428,57, biaya operasional Rp57.537.076.255,68, biaya energi Rp5.201.264.178,73, dan biaya pemeliharaan dan penggantian sebesar Rp287.031.322.023,38.

Kata Kunci: *Overall Equipment Effectiveness*, *Life Cycle Cost*, *discount rate*, Inflasi

Abstract

Lanud Adisutjipto as the executor of aerospace education continues to improve aircraft engine performance and embody the principle of zero accidents, zero defects and zero breakdown to avoid incident and accidents to the Air Force trainer aircraft based in Lanud Adisutjipto through effective and efficient maintenance performance. This study analyzes the maintenance activity of KT-1B Wongbee carried out by TNI AU (Skadron Teknik 043 Lanud Adisutjipto) with the Overall Equipment Effectiveness model approach. This study also analyzes the maintenance cost of KT-1B Wongbee aircraft accordance Life Cycle Cost (LCC) using Ms. Excel in its calculation. This calculation uses data on operational costs, maintenance and replacement cost, and energy costs throughout the economic life of the aircraft.

The results of the calculation of the Overall Equipment Effectiveness (OEE) value of 71.40% means that the value is below the world call standard limit of 85%. Whereas for calculating maintenance costs using Life Cycle Cost (LCC), the total LCC is Rp.1.740.618.233.886,37, with initial investment cost Rp.1.320.848.571.428,57, operational costs of Rp57.537.076.255,68, energy costs Rp75.201.264.178,73, and maintenance and replacement costs amounting to Rp287.031.322.023,38.

Keywords: Overall Equipment Effectiveness, Life Cycle Cost, Discount Rate, Inflation