

ABSTRACT

PT Nusantara Turbin dan Propulsi (PT NTP) established since 1986, is an independent company as a subsidiary of PT Dirgantara Indonesia, which is engaged in maintenance services (maintenance) turbine engines commonly used on aircraft or turbine engines used for industry. Treatment services undertaken by PT NTP is in the form of inspection services (HSI), changes (modification), minor repair (repair) and overhaul of turbine engines for aircraft one of them is on Engine CT7. Engine CT7 has many component from subsystem. With Risk Priority Number (RPN) method will get the number of critical components. The critical components selected are Midframe, Compressor Rotor, Turbine Blade and Power Turbine Drive Shaft. Then the maintenance policy is determined with the characteristics of damage using Reliability Centered Maintenance (RCM) method and the risk caused by damage by using Risk Based Maintenance (RBM) method. Based on the results of data processing using RCM, obtained seven scheduled concondition task, six scheduled discard task, and three scheduled restoration task. The interval of care time of each component varies according to the task obtained. And based on the results of data processing using RBM obtained system performance loss of \$ 7.026.106,81 and the risk of \$ 7.014.841,90. The total cost of treatment proposals obtained based on the optimal time interval of \$ 1.885.612,82.

Keywords : *Reliability Centered Maintenance, Risk Based Maintenance, Risk Priority Number, failure record, preventive maintenance.*