ABSTRACT

Indonesian Aerospace (IAe) is the large aircraft industry in Indonesia. In producing every part and component for aircraft must be needed manufacturing machine to support the production process. But if there is a machine that is damaged suddenly, then the production will be inhibited and results in loss for the company. One of them occurrs on a production line in Front Spar R8-R14. It is necessary to measure the effectiveness of using the machine with the Overall Equipment Effectiveness (OEE) or Total Effective Equipment Performance (TEEP) so that the production process can be proceed smoothly.

Based on the calculation of OEE, OEE value on the production line in R8-R14 Front Spar in 2011 is 31.43%. This value is very far from the criteria established by the Japan Institute of Plant Maintenance (JIPM), which is 85%. Based on the report of OEE, we can measure the total effectiveness from performance of the machine in 1 year using the Total Effective Equipment Performance (TEEP) method. TEEP in 2011 for CNC Large Mill Machine DGMP "C" is 28.45%, 16 Wheel Spencer & Halstead machine is 33.27% and CNC Large Mill Machine SGAL "I" has 35.46%. Through the calculation of cost of unreliability (COUR) can be seen the cost of operating losses and it causes. COUR of production linefor this part is Rp 804,416,614.46 for the 2011.

Based on the analysis from the results of the calculation of OEE, TEEP and COUR. Thus, opportunities to improve the effectiveness of using the machine can be done, such as improving preventive maintenance program, skills and increasing the number of maintenance crew, as well as add work time on the machine operation.

Keyword : *Maintenance Management, Overall Equipment Effectiveness, Total Effective Equipment Performance, Cost of Unreliability*