

## **ABSTRACT**

*PT. XYZ is the first and only aircraft company in Indonesia and in the Southeast Asia region. One of the products produced is the product elevator 95-N-004. According to company historical data, to produce one pair of elevators consisting of 482 parts, there are 44 defect parts. The percentage value for defect parts is 9.18% which is very far from the maximum tolerance limit of 0.8%. Therefore, research using the Six Sigma approach is carried out to determine the improvements that must be made based on the value of the risk priority number with the DMAI stage. Beginning with the define stage, namely the problem identification stage and it was found that the process that was the focus of this research was the drilling process. In the measure stage, data processing is carried out to calculate the stability and capability of the process. Then the root cause of the problem is determined in the analyze stage using fishbone diagrams, 5 Why's and Failure Mode and Effect Analysis. After knowing the root cause of the problem, an improvement plan is developed in order to overcome the priority defects based on the RPN value. The proposed improvement for the method factor is to make a tool in the form of a pin for JIG elevators with an RPN value of 252 and for the man factor a proposal is given in the form of a visual display basis for consideration of drilling with a RPN value of 210.*

*Kata Kunci: Elevator, Six Sigma, Defect, Drilling, Risk Priority Number*