

ABSTRACT

PT. XYZ is an Indonesian original manufacturing company that manufactures aircraft and its components. One of the business units in PT XYZ is the Aerostructure Business Unit. Aerostructure Business Unit is a business unit in PT XYZ which is engaged in the design, manufacture of components, and assembly of aircraft frame sub-assembly. This research was conducted in the Spirit Program, where the Spirit Program is one of the programs being carried out by the Aerostructure Business Unit. This Spirit Program is a program for making aircraft parts, components, equipment and equipment for Airbus aircraft types. Currently the Spirit Program at PT XYZ is undergoing an Inboard Outer Fixed Leading Edge (IOFLE) project. The project began in 2002 for the manufacture of some components of the A380 aircraft wing.

Based on production data part period January-December 2017 there are 144 part A380 which defect and exceed the limit of 1% tolerance. Of the 144 defect A380 parts, 89% are in scrap. Then do further research to identify scrap.

This research uses Six Sigma method to minimize the part in scrap due to defect. Stage on Six Sigma is DMAIC (Define, Measure, Analyze, Improve, and Control). Define is the phase of problem identification, found problems at work station type CNC Vertical Jig Boring SIP 720 which produce part agu mounting and happened defect oversized hole. Then proceed at the Measure stage that measures process stability and process capability, and obtained the process that comes out of the control limit. The uncontrolled process will proceed at the Analyze stage to determine the fix and look for the root cause of the problem. Furthermore, the Improve stage is done to provide a repair proposal to reduce the part in the scrap due to defect oversized holes.

The proposals given for improvement are derived from human factors and methods as the causes of defect oversized factors. Proposed improvements provided are making aids in the process of making holes and procurement of safety kits

Keywords : Six Sigma, DMAIC, Hole Oversized