

ABSTRACT

PT TransNusa Aviation Mandiri, commonly abbreviated TransNusa, is an Indonesian domestic airline. By the Ministry of Transport's authorization, it provides air transport services to Eastern Indonesia region. TransNusa has five Fokker-50 aircrafts used for commercial flights. Each aircraft must be in good condition to avoid technical failure during a flight. By the time of this research, the management of aircraft inspection data in TransNusa airlines used a particular written form while e-mails were used in interdivisional data exchange. To make the recurring process of data recording more efficient so that delays in data recording can be avoided, an application/software that handles the processing of data on aircraft maintenance and repair is highly needed. The application is aimed to assist engineers in reporting the flight hours and flight cycle in less than 30 minutes and in formulating the flight hours and flight cycles reports, so that decision on which unit to be inspected can be quickly made, estimation of the exact location of inspection can be made, inspection schedule can be provided, and Job Order based on flight hours and flight cycles of Aircraft Components can be provided. This web-based application uses Java programming language and MySQL database and the method of project development uses SDLC (System Development Life Cycle) of prototype model. Meanwhile, delineation of the current business process and proposed business processes uses flow map and system design uses entity relationship diagrams, use case diagrams, class diagrams, and sequence diagrams. The final project is expected to produce an application that can be used to assist both Line Maintenance Division and Technical Service Division in dealing with aircraft maintenance and repair data processing.

Keywords: Inspection, Flight Hours, Flight Cycle, Job Order, Maintenance Release