

Aircraft redesign through strategic planning of engineering changes

ABSTRACT

In the current environment of high design adaptation and variation, the main market advantages are often obtained by the fastest manufacturers to develop and produce their range of products without making costly mistakes. The Strategic Planning of Engineering Changes (SPEC) methodology has been developed as a decision-making aid for change implementation planning in product redesign development. Its application in aircraft redesign is anticipated to reduce process risks, improve detection of possible change effects propagation, increase the efficiency of change implementation planning and reduce the costs and time delays. From its application on a notional aircraft study, use of SPEC method is shown to be promising to improve the overall efficiency of the derivative aircraft planning process.

Keyword: Aircraft redesign; Redesign methodology; Redesign management; Redesign strategy