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The Future of Aircraft Propulsion

Abstract

Faster, higher and stronger are current requirements of human for future aircraft. From German He-178 in 1939 to Airbus 380 in 2005, numerous technique revolutions was applied to aircraft and aircraft propulsion systems. The objective of this thesis is, based on the potential projects, such as the Open Rotor Propulsion Systems, the Distributed Propulsion Systems and the Hybrid Space Propulsion Systems, of current main aircraft propulsion manufactures and organizations, for example the Rolls-roles(RR), General Electric(GE) and National Aeronautics and Space Administration(NASA), comparing the advantages and disadvantages among these projects. Also considering the environment requirements, laws and regulations as well as technological strength for different industries and organizations. More specifically, this thesis discusses these projects within different marketing situations, customer requirements and operation costs. Then, comparing their profits and drawbacks. After that, this thesis analysis some specific data and give comments and suggestions for future researches.