ABSTRACT OF THE DISCLOSURE

AIRCRAFT OPERATION

A gas turbine engine of an aircraft forms part of a propulsion system, and comprises: a combustor arranged to combust the fuel and having an exit, and wherein a combustor exit temperature - T40 - is defined as an average temperature of flow at the combustor exit and a combustor exit pressure - P40 - is defined as the total pressure there; a turbine comprising a rotor having a leading edge and a trailing edge, and wherein a turbine rotor entry temperature - T41 - is defined as an average temperature of flow at the leading edge of the rotor of the turbine and a turbine rotor entry pressure - P41 - is defined as the total pressure there; and a compressor having an exit, wherein a compressor exit temperature – T30 – is defined as an average temperature of flow at the exit from the compressor at cruise conditions and a compressor exit pressure – P30 – is defined as the total pressure there (all at cruise conditions). A method of determining at least one fuel characteristic of a fuel provided to the gas turbine engine comprises changing a fuel supplied to the gas turbine engine; and determining the at least one fuel characteristic of the fuel based on a change in a relationship between T30 or P30 and one of T40 and T41, or of P40 and P41, respectively.

To be reproduced with Figure 9 when published.