

Method and Apparatus for Monitoring Turbine Efficiency of Aircraft

Auxiliary Power Unit

Abstract

The present invention relates to a method and device for monitoring performance of an auxiliary power unit (APU) turbine efficiency of an aircraft. The method comprises: obtaining APU messages at multiple time points within a period; obtaining APU startup parameters including at least a rotation speed at a peak of EGT according to the APU messages; calculating a percentage NPA of the rotation speed when the exhausting gas temperature EGT reaches its peak at the APU startup stage relative to the rotation speed in the APU normal operation; calculating the average of the NPA within the period; and determining which of the stable, decline and failure phases the APU turbine efficiency is in according to the average of the NPA.

Fig. 1