

PERFORMANCE ANALYSIS OF AN AIRCRAFT ENGINE COMPONENT BASED ON WASHING

ABSTRACT

A method for performance analysis of an aircraft engine component includes accessing data of an aircraft engine component, the data including a performance signal; detecting a signature of the performance signal; performing a first analysis by an analytical model, based on the data and the performance signature, to determine performance metrics of the aircraft engine component; converting a first performance metric to a second performance metric based on a derivative, the derivative being derived from at least two of the determined performance metrics; determining an analytic for the aircraft engine component based on at least one of the derived derivative or the determined performance metrics; selectively providing a washing recommendation for the aircraft engine component based on the determined analytic; and selectively causing the aircraft engine component to be washed based on the washing recommendation.

[Figure 1]