Data Fusion for Enhanced Aircraft Engine Prognostics and Health Management (Paperback)

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Bibliogov, United States, 2013. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book ***** Print on Demand *****.Aircraft gas-turbine engine data is available from a variety of sources, including on-board sensor measurements, maintenance histories, and component models. An ultimate goal of Propulsion Health Management (PHM) is to maximize the amount of meaningful information that can be extracted from disparate data sources to obtain comprehensive diagnostic and prognostic knowledge regarding the health of the engine. Data fusion is the integration of data or information from multiple sources for the achievement of improved accuracy and more specific inferences than can be obtained from the use of a single sensor alone. The basic tenet underlying the data/ information fusion concept is to leverage all available information to enhance diagnostic visibility, increase diagnostic reliability and reduce the number of diagnostic false alarms. This report describes a basic PHM data fusion architecture being developed in alignment with the NASA C-17 PHM Flight Test program. The challenge of how to maximize the meaningful information extracted from disparate data sources to obtain enhanced diagnostic and prognostic information regarding the health and condition of the engine is the primary goal of this endeavor....

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