



# Aviation Performance Measuring System (APMS)

**Objective** APMS is an element of the ASMM Project that is developing the technology to enable very large quantities of flight data to be processed in a highly automated fashion in order to address questions relating to operational performance and safety in a regular and routine manner.

**Approach** Working with U.S. airlines to establish user needs, APMS enhances the existing COTS capabilities for Flight Operation Quality Assurance (FOQA) in the form of knowledge-based computerized assistance for proactive assessment of safety risk. Using APMS tools,

analysts can better identify, verify, and interpret both exceedances and routine operations. Tools currently in development will integrate distributed sources of data for causal analysis, search for patterns of typical and atypical operations that may spot developing risks, and facilitate data mining through regular review of routine operations

**Impact** APMS will change the philosophy of operations for air carriers by enabling routine monitoring of flight data to support not only flight operations but eventually engineering, maintenance, training, scheduling, and dispatch. The tools of APMS are also applicable to space flight and other areas.

**IT** APMS incorporates innovative technology for rapid processing of large volumes of complex data, and state-of-the-art tools for extraction, presentation and visualization of information from flight data.

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