

ABSTRACT

Weather contaminants such as snow, ice, slush and water cause inherently hazardous conditions on airfield pavements that may contribute to incidents and accidents. Following the overrun of a Boeing 737 aircraft at Chicago Midway International Airport in 2005, methodologies and processes to measure and communicate actual runway conditions to the airlines, pilots, airport maintenance and air traffic control in real time and in terms that directly relate to expected aircraft performance were found inadequate. A new runway condition assessment process, based on a newly constructed Runway Condition Assessment Matrix (RCAM), is now being implemented internationally. It requires the precise classification and depth measurement of the combination of contaminants present on airfield pavements surface.

Due to the fact that current practices are inadequate to provide the necessary data accurately and with high confidence in a timely manner, new automated systems are being proposed and start to be deployed to fill the requirements and bridge the technology gap. International standardization of these systems is required to ensure the quality of measurements which are directly related to safety issues. EUROCAE WG-109 aims at establishing Minimum Aviation System Performance Specifications (MASPS) for these systems. This WG involves several countries (France, Germany, USA, Japan...) and various stakeholders (airport operators, aircraft and sensors manufacturers, civil aviation authority representatives, technical centers...).

The presentation should show the progress of the working group on various topics such as the precise definition of physical measurements, the draft of minimal performance requirements and the creation of performance assessment procedures.

Keywords: Airport Operations, Aircraft Safety, Runway Friction, Pavement Surface, Weather Contamination, Sensor, Information System