

Airports Visibility Monitoring

Visibility monitoring at airports is vital for aircraft landing and the safety of passengers. Nephelometers have been shown to provide an accurate, real-time measurement of visibility. The Nephelometer's strength in this department is found in its wet mode of operation; this mode doesn't heat the sample and combines both the effects of haze, smog and fog within its calculation.

Nephelometers use in airports has been cited in numerous publications for their use in Airport visibility, one of the most important ones is stated below:

"The planned transition from human to automated airport visibility monitoring has unfortunate implications for visibility monitoring. Most of the existing information about historical haze trends is from airport data. The new automated instruments are designed to measure the very poor visibility conditions that are of primary concern for aviation safety, but will provide little or no more information on haze under typical visibility conditions. we recommend that the proposed instrumentations be supplemented with integrating Nephelometer which would permit measurement of light scattering coefficients under visibility conditions. The addition of Nephelometers to airport instrumentation would ensure that haze levels are monitored over a broad and representative geographic scale, thereby providing important information on spatial & temporal trends of regional haze."

Page 140 "Protecting Visibility in National Parks and Wilderness Areas"
National Research Council Committee (U.S.)