

Calibration of Heat Flux Transducers

Mike Burns, FAA Technical Center

Calibration of Heat Flux Transducers: Heat flux is the rate of thermodynamic energy transfer per unit area that is incident on a material. The measurement and control of heat flux is required by many Federal Aviation Administration (FAA) fire test methods. Such test methods include Heat Release Rate, NBS Smoke Density, Radiant Panel Test, and several oil burner tests. Descriptions of each apparatus, its use, calibration and the pass / fail criteria are contained in the Federal Register 14 CFR parts 25 and 121.

This presentation describes a detailed calibration method implemented by the International Aircraft Materials Fire Test Working Forum (IAMFTF) to better standardize calibration procedures for gauges used in measuring heat flux.