REPORTING OF AIRPORT PAVEMENT BEARING CAPACITY

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ABSTRACT
Classification and reporting of airfield pavement bearing capacity have always been an important task in airport engineering, since they support the decision making process needed for airport pavement management systems. Successful airport management should assure pavement preservation, avoiding closing an airport due to required extensive repairs. For this reason it is critical for airport authorities to have a simple and suitable classification and reporting system which will facilitate the management of airfield pavement maintenance.

The reporting system used worldwide for the bearing capacity of airfield pavements is the ACN-PCN (Aircraft Classification-Pavement Classification) method, introduced by the ICAO (International Civil Aviation Organization). The mentioned method has been developed for universal use in airport pavements; however its applicability for composite pavements is questionable. This critical subject is investigated in the present paper based on both, the ICAO reporting approach and pavement structural analysis. For the latter, airfield pavement data was collected using Falling Weight Deflectometer (FWD). The collected data was processed and analyzed in regards to the structural evaluation of the tested pavement. The related findings are presented and discussed in the paper.

KEY WORDS: Airport, pavements, reporting, bearing capacity, field data