



## Chapter 6

# COEFFICIENT OF FRICTION, FRICTION MEASURING DEVICES AND PERFORMANCE STANDARDS SET OR AGREED BY THE STATE

### COEFFICIENT OF FRICTION

6.1 It is erroneous to believe that the friction characteristics of the critical tire-to-ground contact area measured by a coefficient of friction are properties belonging to the pavement surface and are therefore part of its inherent friction characteristics. They are a system response generated by the dynamic system consisting of the:

- a) pavement surface;
- b) tire;
- c) contaminant; and
- d) atmosphere.

6.2 It has been a long-sought goal to correlate the system response from a measuring device with the system response from the aircraft when measured on the same surface. A substantial number of research activities have been carried out and have brought new insight into the complex processes taking place. Nevertheless, to date, there is no universally accepted relationship between the measured coefficient of friction and the system response from the aircraft, although one State uses friction measured by a decelerometer for certain types of winter-contaminated surfaces and relates it to aircraft landing distances.

**COMMENT:**

*This clearly states the lack of correlations between friction measurement equipment and aircraft braking capability. Something Boeing has stated that throughout that their Braking Action/Airplane Braking Coefficient does not correlate with such equipment.*

*Through the 90ies several research programs tried to find a relation, Joint Winter Runway Measurement Program being one, without finding a relationship.*

*For this reason, friction measurement equipment are **not recommended** for flight operational information use.*

*Such equipment are to be used for runway surface **maintenance** purposes as per ICAO Annex 14*

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