

Factual Report – Attachment 7

Communication with Dr. Robert Sharman of the National Center for Atmospheric Research/Research Applications Laboratory regarding turbulence severity classification based on aircraft vertical accelerations. Further information can be found in Table 1.1 of the book *Aviation Turbulence* edited by Robert Sharman and Todd Lane [Sharman, Robert & Lane, Todd. (2016). *Aviation turbulence: Processes, detection, prediction*. 10.1007/978-3-319-23630-8].

METEOROLOGY

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*Submitted by: Mike Richards
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Richards Michael

From: Robert Sharman [REDACTED]@ucar.edu>
Sent: Friday, March 29, 2019 5:10 PM
To: Richards Michael <[REDACTED]@ntsb.gov>
Cc: Matthias Steiner <[REDACTED]@ucar.edu>
Subject: Re: turbulence question

Mike,

Yes, we may be able to do something with that, but it requires a fairly complete description of the aircraft response function. I've attached another paper that discusses that.

The pirep should be approximately the peak g though, correct? My understanding is that
max g 0.2-0.5 should be "light"
max g 0.5-1.0 should be "moderate"
max g 1.0-2.0 should be "severe"
max g >2.0 should be reported as "extreme."

Bob