



European Severe Storms Laboratory (ESSL)

Münchner Str. 20 · 82234 Wessling · Germany · www.essl.org

Dr. Pieter Groenemeijer

phone: +49 8153 281845

+49 151 5903 1839

fax: +49 8151 9659 99911

e-mail: pieter.groenemeijer@essl.org

To:
EF-scale stakeholder group

Subject: ESSL position on EF-scale

Wessling, 20 September 2013

Dear colleagues,

The European Severe Storms Laboratory organized an internal meeting on the EF-scale was held on September 6th. The meeting resulted in the following position statement regarding the EF-scale:

ESSL finds that the current EF-scale has a number of important positive changes compared to the F-scale, such as the use of multiple damage indicators, the use of the concept of “degrees of damage” and the development of a somewhat objective application of the scale for use by less experienced damage assessment teams.

We note that the EF scale in its present form is essentially a damage scale, which still has a number of problems. These are:

- 1) The underlying wind speed to damage relation is still poorly known. The relation between damage and wind speed needs to be substantiated by research.
- 2) The EF-scale does not cover the observed range of wind speeds. The downward adjustment of wind speeds (compared to the F-scale) in the upper range of the scale is not justified by recent documentation of actual wind speeds in tornadoes.
- 3) The wind speeds currently assigned to the EF-scale are not compatible with the original F-scale, which is a problem in climatological studies
- 4) The current EF-Scale damage assessment needs additional damage indicators, in particular including more vegetation damage and including structures not represented by examples of US construction practices. The existing list is inadequate.

Because of these problems, ESSL cannot implement the EF-scale in its current form. ESSL wants to contribute to the scale improvement anticipated with the development of an EF oversight process. The goal should be to establish a scale that is i) broadly applicable, ii) accurate and iii) consistent. To reach this the committee should include international stakeholders like the ESSL.

Best Regards,

Pieter Groenemeijer
Director, European Severe Storms Laboratory