# Simplified Tornado Severity Factor (TSF) Formula

The TSF system refines tornado ratings by incorporating more real-world impact factors beyond just windspeed and damage.

## 🔢 Simplified TSF Formula

TSF = [(WS × 0.3) + (DS × 0.35) + (SZ × 0.1) + (PF × 0.15) + (SAF × 0.1)] ÷ 2

## 📘 Abbreviations

• WS: Windspeed Score

• DS: Damage Score

• SZ: Size Score

• PF: Proximity Factor

• SAF: Situational Awareness Factor

## 📊 TSF Score to Rating Scale

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| --- | --- | --- |
| TSF Score | TSF Rating | Impact Level |
| 0.00–0.99 | TSF-0 | Minimal (EF0-like) |
| 1.00–1.99 | TSF-1 | Low (EF0–EF1) |
| 2.00–2.99 | TSF-2 | Moderate (EF2) |
| 3.00–3.99 | TSF-3 | High (EF3) |
| 4.00–4.74 | TSF-4 | Severe (EF4) |
| 4.75–5.00 | TSF-5 | Catastrophic (EF5) |