

## Enhanced F Scale for Tornado Damage

An update to the the [original F-scale](#) by a team of meteorologists and wind engineers, to be implemented in the U.S. on 1 February 2007.

FUJITA SCALE			DERIVED EF SCALE		OPERATIONAL EF SCALE	
F Number	Fastest 1/4-mile (mph)	3 Second Gust (mph)	EF Number	3 Second Gust (mph)	EF Number	3 Second Gust (mph)
0	40-72	45-78	0	65-85	<b>0</b>	<b>65-85</b>
1	73-112	79-117	1	86-109	<b>1</b>	<b>86-110</b>
2	113-157	118-161	2	110-137	<b>2</b>	<b>111-135</b>
3	158-207	162-209	3	138-167	<b>3</b>	<b>136-165</b>
4	208-260	210-261	4	168-199	<b>4</b>	<b>166-200</b>
5	261-318	262-317	5	200-234	<b>5</b>	<b>Over 200</b>

**\*\*\* IMPORTANT NOTE ABOUT ENHANCED F-SCALE WINDS:** *The Enhanced F-scale still is a set of wind estimates (not measurements) based on damage.* Its uses three-second gusts estimated at the point of damage based on a judgment of 8 levels of damage to the 28 indicators listed below. These estimates vary with height and exposure. **Important:** The 3 second gust is not the same wind as in standard surface observations. Standard measurements are taken by weather stations in open exposures, using a directly measured, "one minute mile" speed.

### Enhanced F Scale Damage Indicators

NUMBER (Details Linked)	DAMAGE INDICATOR	ABBREVIATION
<a href="#">1</a>	Small barns, farm outbuildings	SBO
<a href="#">2</a>	One- or two-family residences	FR12
<a href="#">3</a>	Single-wide mobile home (MHSW)	MHSW
<a href="#">4</a>	Double-wide mobile home	MHDW
<a href="#">5</a>	Apt, condo, townhouse (3 stories or less)	ACT
<a href="#">6</a>	Motel	M

<a href="#"><u>7</u></a>	Masonry apt. or motel	MAM
<a href="#"><u>8</u></a>	Small retail bldg. (fast food)	SRB
<a href="#"><u>9</u></a>	Small professional (doctor office, branch bank)	SPB
<a href="#"><u>10</u></a>	Strip mall	SM
<a href="#"><u>11</u></a>	Large shopping mall	LSM
<a href="#"><u>12</u></a>	Large, isolated ("big box") retail bldg.	LIRB
<a href="#"><u>13</u></a>	Automobile showroom	ASR
<a href="#"><u>14</u></a>	Automotive service building	ASB
<a href="#"><u>15</u></a>	School - 1-story elementary (interior or exterior halls)	ES
<a href="#"><u>16</u></a>	School - jr. or sr. high school	JHSH
<a href="#"><u>17</u></a>	Low-rise (1-4 story) bldg.	LRB
<a href="#"><u>18</u></a>	Mid-rise (5-20 story) bldg.	MRB
<a href="#"><u>19</u></a>	High-rise (over 20 stories)	HRB
<a href="#"><u>20</u></a>	Institutional bldg. (hospital, govt. or university)	IB
<a href="#"><u>21</u></a>	Metal building system	MBS
<a href="#"><u>22</u></a>	Service station canopy	SSC
<a href="#"><u>23</u></a>	Warehouse (tilt-up walls or heavy timber)	WHB
<a href="#"><u>24</u></a>	Transmission line tower	TLT
<a href="#"><u>25</u></a>	Free-standing tower	FST
<a href="#"><u>26</u></a>	Free standing pole (light, flag, luminary)	FSP
<a href="#"><u>27</u></a>	Tree - hardwood	TH
<a href="#"><u>28</u></a>	Tree - softwood	TS

A 95 page PDF file explaining the development and makeup of the Enhanced F-scale now is available, both [here at SPC](#) and from the [Texas Tech server](#).

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