2015 Tornadoes &
A Look at 2016 and Product Updates
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Each Year: About 1,200 tornadoes touch down across the United States causing an estimated $1.1 billion in damage and 80 deaths.

Preliminary 2015 U.S. Tornadoes: 1,170

Six Decades of Annual Tornado Counts
U.S. Annual Tornado Counts, 1953-2015
Linear trend removed using estimated annual mean of 1,200 tornadoes.

Tornadoes of 2015

Major Tornado Days in 2015

2015 Fatalities: 1 in OK
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2015 Fatalities: 3 total (2 in IL EF4)

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2015 Fatalities: 8 total (3 TX, 2 AR)

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2015 Fatalities: 8 total
Major Tornado Days in 2015

2015 Fatalities: 10 total (1 in OK, 1 in TX)

Interesting 2015 Highlights

Nearly Watchless Jan, Feb, Mar

Northern IL EF4 on April 9
Interesting 2015 Highlights

381 May tornadoes ~150% of normal

Anomalous High Plains Outbreak, Nov 16

Deadly December Events MS and TX

First 3 months of 2015: 4 Tornado Watches, 9 Severe Watches

March 25, 2015: Oklahoma Tornadoes

9 Tornadoes, 1 Fatality, 27 Injured
March 25, 2015: Oklahoma Tornadoes

April 9 Fairdale, IL EF4 Tornado

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May 6, 2015: OK, KS & NE Tornadoes

May 9-10, 2015: SD, TX & AR Tornadoes
May 10, 2015: Tornado - Delmont SD

- EF2 tornado (16mi) - Delmont, SD: No fatalities, 9 injuries, 20+ buildings

May 10, 2015: Tornado - Van TX

- EF3 tornado in Van TX: 2 fatalities and 40 injuries

May 16, 2015: Tipton, OK EF3 Tornado

- 55 tornado reports (OK, MO, MO): EF3 near Tipton (OK)

March, April, May Watch Anomaly

- High Plains Outbreak on November 16

- November – February Tornadoes (1950-2015)

Source: USA tornadoes.com

16 Nov. 2015
November 16, 2015: Pampa TX Tornado

December 23rd

Two Large, Long-Track Tornadoes

December 26, 2015: North TX Tornadoes

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13 tornadoes: EF4 – Garland & Rowlett TX, 13 fatalities; 500+ injuries

December Tornado Fatalities (1950-2015)

Tornadoes of 2015

An Active Start to 2016

...and so, what about 2016?

An Active Start to 2016

Past 12 Years of January/February Preliminary Storm Reports

2016 second-most preliminary reports for Jan/Feb since 2008
El Niño Update
Climate Prediction Center (CPC)

Severe Weather During El Niño
)—February Watch Days Anomaly
—10 strongest JAN-FEB warm phase years - cool phase years

Looking Ahead to April with El Niño
—April Watch Days Anomaly
—10 strongest MAR-APR warm phase years - cool phase years

El Niño Update
Climate Prediction Center (CPC)

Severe Weather During El Niño

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Understanding Severe Thunderstorm Risk Categories
<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Marginal (NGL)</td>
<td>No severe thunderstorms expected. Long-range outlooks valid until all thresholds.</td>
</tr>
<tr>
<td>2: Slight (SLGT)</td>
<td>Scattered severe storms possible. Short-lived, local, and not widespread.</td>
</tr>
<tr>
<td>3: Enhanced (ENH)</td>
<td>Numerous severe storms possible. More persistent, widespread, and more severe storms.</td>
</tr>
<tr>
<td>4: Moderate (MDT)</td>
<td>Widespread severe storms possible. Long-lived, very widespread, and particularly severe storms.</td>
</tr>
<tr>
<td>5: High (HGN)</td>
<td>Widespread severe storms expected.</td>
</tr>
</tbody>
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National Weather Service
What’s Next for the SPC?
Possible late 2016 into 2017

Short-Term Severe Weather Outlooks (4-hr)

Example April 9, 2015 22z-02z (5-9 pm CDT)

What’s Next for the SPC?
Possible late 2016 into 2017

Day 3 Convective Outlook Update

Day 3 (day after tomorrow) Severe Outlook is currently issued once per day

Thank You!

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