Weather and Emergency Alert Notification Services

Protecting Life and Property, Supporting Business Continuity
U.S. Severe Weather Event Statistics

10 Year U.S. Severe Weather Event Statistics

Criteria for a Severe Thunderstorm:
1 inch hail or 58 mph wind

<table>
<thead>
<tr>
<th>Year</th>
<th>Tornado</th>
<th>Hail</th>
<th>Wind</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1,522</td>
<td>6,045</td>
<td>14,170</td>
<td>21,737</td>
</tr>
<tr>
<td>2016</td>
<td>1,059</td>
<td>5,601</td>
<td>13,566</td>
<td>20,226</td>
</tr>
<tr>
<td>2015</td>
<td>1,259</td>
<td>5,411</td>
<td>12,492</td>
<td>19,162</td>
</tr>
<tr>
<td>2014</td>
<td>1,057</td>
<td>5,536</td>
<td>11,985</td>
<td>18,578</td>
</tr>
<tr>
<td>2013</td>
<td>942</td>
<td>5,457</td>
<td>12,942</td>
<td>19,341</td>
</tr>
<tr>
<td>2012</td>
<td>1,119</td>
<td>7,032</td>
<td>14,346</td>
<td>22,497</td>
</tr>
<tr>
<td>2011</td>
<td>1,894</td>
<td>9,415</td>
<td>18,680</td>
<td>29,989</td>
</tr>
<tr>
<td>2010</td>
<td>1,543</td>
<td>5,913</td>
<td>14,087</td>
<td>21,543</td>
</tr>
<tr>
<td>2009</td>
<td>1,305</td>
<td>10,223</td>
<td>11,408</td>
<td>22,936</td>
</tr>
<tr>
<td>2008</td>
<td>1,685</td>
<td>17,680</td>
<td>16,819</td>
<td>36,184</td>
</tr>
<tr>
<td>Totals</td>
<td>13,385</td>
<td>78,313</td>
<td>140,495</td>
<td>232,193</td>
</tr>
</tbody>
</table>

**NOAA Storm Prediction Center Statistics


U.S Population 325.7 million (2017)
## 10 Year All U.S. Weather Impact Statistics

<table>
<thead>
<tr>
<th>Year</th>
<th>Fatalities</th>
<th>Injuries</th>
<th>Property Damage</th>
<th>Crop Damage</th>
<th>Total Damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>508</td>
<td>1,205</td>
<td>$87,377.50</td>
<td>$1,913.21</td>
<td>$89,290.71</td>
</tr>
<tr>
<td>2016</td>
<td>458</td>
<td>1,276</td>
<td>$18,194.70</td>
<td>$243.29</td>
<td>$18,437.99</td>
</tr>
<tr>
<td>2015</td>
<td>522</td>
<td>2,143</td>
<td>$4,202.01</td>
<td>$645.11</td>
<td>$4,847.12</td>
</tr>
<tr>
<td>2014</td>
<td>388</td>
<td>2,203</td>
<td>$5,511.72</td>
<td>$2,183.30</td>
<td>$7,695.02</td>
</tr>
<tr>
<td>2013</td>
<td>448</td>
<td>2,767</td>
<td>$8,817.39</td>
<td>$4,375.00</td>
<td>$13,192.39</td>
</tr>
<tr>
<td>2012</td>
<td>538</td>
<td>2,653</td>
<td>$32,792.60</td>
<td>$6,083.78</td>
<td>$38,876.38</td>
</tr>
<tr>
<td>2011</td>
<td>1,096</td>
<td>8,859</td>
<td>$21,115.23</td>
<td>$3,067.46</td>
<td>$24,182.69</td>
</tr>
<tr>
<td>2010</td>
<td>491</td>
<td>2,374</td>
<td>$9,553.84</td>
<td>$2,150.66</td>
<td>$11,704.50</td>
</tr>
<tr>
<td>2009</td>
<td>373</td>
<td>1,876</td>
<td>$6,773.98</td>
<td>$685.49</td>
<td>$7,459.47</td>
</tr>
<tr>
<td>2008</td>
<td>569</td>
<td>2,903</td>
<td>$27,106.82</td>
<td>$3,217.30</td>
<td>$30,324.12</td>
</tr>
<tr>
<td>Totals</td>
<td>5,391</td>
<td>28,259</td>
<td>$221,446</td>
<td>$24,565</td>
<td>$207,134</td>
</tr>
</tbody>
</table>

NWS Data comprised from 50 states, Puerto Rico, Guam, and the Virgin Islands | $ is millions

iAlert is an American media company that provides tailored weather and emergency alert notification services.

- Owned and operated by former NWS Meteorologist and Watch, Warning, Advisory Dissemination Manager Mark McInerney.

- iAlert.com “Push Delivery” of weather and emergency alerts by email, text message, and social media.

- WxData.com “Pull Delivery” providing developer API access to real-time and historic weather data for mobile apps and business services.

National Weather Service (NWS) conferred highest honor, the Isaac M. Cline Award to iAlert Services Chief Meteorologist Mark McInerney.
iAlert has disseminated nearly 3 million alerts to partners such as...

- Bureau of Indian Affairs
- State of Michigan
- United States Postal Service
- U.S. Department of Homeland Security
- National Institutes of Health
- The Salvation Army
- Empire State Division
- Tennessee Valley Authority
- New York State Education Department
- State of Wisconsin
- The Salvation Army
- New Jersey Turnpike Authority
- State of Virginia
- Albertsons / Safeway
- Roadrunner Transportation
- United States Department of Transportation
- U.S. Department of Transportation
- ALBERTSONS
- New Jersey Turnpike Authority
- TEXAS CAPITAL BANK™
- Service King
- State of Virginia

... and 20,000 more.

Alert Notification Business Model

Integrate ➔ Tailored Weather Services ➔ Direct Delivery

- Civil Emergency
- Severe Weather Warnings
- Weather Forecasts
- Storm Reports
- Surface Observations
- Satellite
- Radar

Tailored Weather Services

Monitor ➔ Analysis ➔ Output ➔ Distribution

Text Alerts ➔ Email Alerts ➔ Social Media Alerts

Weather and Emergency Alert Notification Services – http://iAlert.com
Common Service Packages

Protecting Life and Property, Supporting Business Continuity

Severe Weather Warning Alerts by City
Severe weather alerts for selected city locations

Severe Weather Warning Alerts by Event
Every tornado, severe thunderstorm, flash flood warning nationwide or by state

The Daily Weather Forecast
Morning daily weather forecast for selected city locations

Impact Weather Observation Alert Monitoring
Alerts when selected wind, temp, heat index, wind chill, and more are reached

Storm Report Alert Monitoring
Receive storm reports for up to 58 different event types in real-time as submitted

Impact Weather Forecast Alert Monitoring
Hourly breakdown when select wind, temp, heat index, wind chill & more is forecast in a 24 hour period

Weather and Emergency Alert Notification Services – http://iAlert.com

http://iAlert.com/services
Weather Warning Alerts by City

• Select from 30,000 cities, all 50 states, for over 100 different alert types:
  • Severe Weather
  • Winter Weather
  • Flooding
  • Non-Precipitation
  • Fire Weather
  • Coastal Weather
  • Tropical Weather
  • Aviation Weather
  • Civil Emergency

• All-Hazards Reference Guide:

• Unlimited city/state locations, alerts to multiple email addresses, text alerts to any text enabled mobile device

• Online account management

Example email alert for Tornado Warning in Kit Cason, Colorado

- Email alerts are TEXT or HTML based providing immediate information for the protection of life and property.
- Alert information varies based on event type, however all pertinent information is provided.
- Example *Tornado Warning* includes:
  - Alert Type (Warning)
  - Event Type (Tornado Warning)
  - Event Start and Expiration Time
  - Effected Areas
  - Link to Live Local Doppler Radar
  - Severe Weather Outlook
  - Local Storm Reports
  - Alert Description
  - and more ...
Daily Weather Forecast Alerts


- Daily forecast disseminated at customized time
- Daily forecasts valid through 5pm of day issued. Base forecast includes:
  - Sky cover
  - Daily high, low, and dew point temperatures
  - Precipitation type
  - Percent of precipitation
  - Wind speed and direction
- Text forecasts abbreviated to keep within 160 text message char limit, larger forecasts sent in multiple messages
- Text and email forecasts are directly viewed. I.E., clicking link not required to view forecast
- Email forecasts are sent in TEXT format or in HTML

Weather and Emergency Alert Notification Services – http://iAlert.com
Daily Weather Forecast email alerts have a selectable HTML or TEXT format.

**HTML format** provides the most information including: active alerts, current weather conditions, local radar, severe weather outlook, and of course the daily forecast.

**TEXT format** is just that, the daily forecast in text form to support emergency services alphanumeric pagers and other similar needs.

Impact Weather Observation Alert Monitoring

- iAlert monitors over 2,000 U.S. surface observing systems across the United States
- Service allows users to select specific locations for monitoring and alert notification, by email and text message

<table>
<thead>
<tr>
<th>Alert Type</th>
<th>Alert Range</th>
<th>Alert Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>Equal to (=)</td>
<td>-25 F to 110 F</td>
</tr>
<tr>
<td></td>
<td>Less than (&lt;)</td>
<td>-25 F to 99 F</td>
</tr>
<tr>
<td>Dew Point</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wind Speed</td>
<td>Less than equal to (&lt;=)</td>
<td>10 MPH to 110 MPH</td>
</tr>
<tr>
<td>Wind Gust</td>
<td>Greater than (&gt;), Greater than equal to (&gt;=)</td>
<td>10 MPH to 110 MPH</td>
</tr>
<tr>
<td>Visibility</td>
<td></td>
<td>0 Mi to 10 Mi</td>
</tr>
</tbody>
</table>

- **Examples:**
  1. Wind speed greater (>) 25 MPH to protect a job site
  2. Temperature drops below freezing, (<) 32 F to protect plants

During severe weather events emergency managers, police, fire, and trained weather spotters submit storm reports across the U.S.

Reports include:
- Severe weather event type
- Event time
- Location (many with latitude and longitude)

Service allows users to select among 58 storm reporting event types for city, county, state, or national based alert notification.

Report times vary from instant to day(s) lag depending on EM/NWS local protocols and site survey timeliness.

Storm Reporting Event Types

<table>
<thead>
<tr>
<th>Event Type</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hail</td>
<td>Entire United States</td>
</tr>
<tr>
<td>Wind damage</td>
<td>By State</td>
</tr>
<tr>
<td>Tornado</td>
<td>By County</td>
</tr>
<tr>
<td>Funnel Cloud</td>
<td>By City/State</td>
</tr>
<tr>
<td>Flood</td>
<td></td>
</tr>
<tr>
<td>Freezing Rain</td>
<td></td>
</tr>
<tr>
<td>Dust Storm</td>
<td></td>
</tr>
<tr>
<td>High Surf</td>
<td></td>
</tr>
<tr>
<td>Flood</td>
<td></td>
</tr>
<tr>
<td>Rip Currents</td>
<td></td>
</tr>
<tr>
<td>More ...</td>
<td></td>
</tr>
</tbody>
</table>

Local Storm Report Map

Each iAlert account holder has online access to manage account and alert configuration at http://iAlert.com/login.php

Weather Alerts by City User Configuration

Impact Based Weather Observation Alert Notification Configuration


Weather and Emergency Alert Notification Services – http://iAlert.com
Group Account Manager Dashboard

- **Group Account Manager (GAM):** Dashboard for central management of alert dissemination, hazard type, and contact information for multiple accounts. EG., Centralized management of alerts for corporate personnel or fleet

- The GAM for unlimited number of accounts from the dashboard:
  - Account is defined by: 1 primary email, 1 alternate email, and 1 text enabled mobile device for alert notification

GAM dashboard integrates into an account that also functions to receive alert notifications

Quick view list of active accounts by name, point-of-contact, and last configuration update

Status of individual accounts with call-to-action notification

Functions to manage alert type notifications and more...

Support Services

• By Email: support@iAlert.com
• Online: http://iAlert.com/support.php
• Hotline: 888.316.8366
• Fax: 888.220.5653
• Information and Functional Documentation: http://iAlert.com/blog
• Mailing Address: iAlert Services LLC
  11140 Rockville Pike, Suite 100-114
  Rockville, MD 20852
Weather and Emergency Alert Notification Services

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