

## Total Lightning Network®

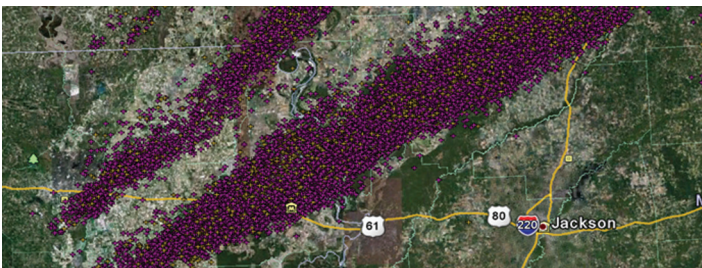
### Comprehensive Solutions for Worldwide Lightning Detection and Severe Weather Prediction and Advanced Alerting

Total Lightning Network incorporates the most advanced lightning location technology delivering unsurpassed lightning detection efficiency and location accuracy. TLN is the first lightning detection network capable of detecting a large proportion of both in-cloud (IC) and cloud-to-ground (CG) lightning.

In-cloud lightning detection at high efficiencies is critical for the advanced forecasting of severe weather phenomena such as:

- Tornadoes
- Damaging downburst winds
- Heavy rain
- Deadly CG lightning strikes that often follow 5 to 30 minutes after IC pulses are detected
- Windshear

Total Lightning Network utilizes its high total lightning detection efficiency data combined with customized algorithms to issue Dangerous Thunderstorm Alerts (DTAs) which provide significant lead-times for impending severe weather.



04.24.10 – Eastern Louisiana, US - TLN detects heavy lightning associated with a storm which generated an EF-4 tornado.

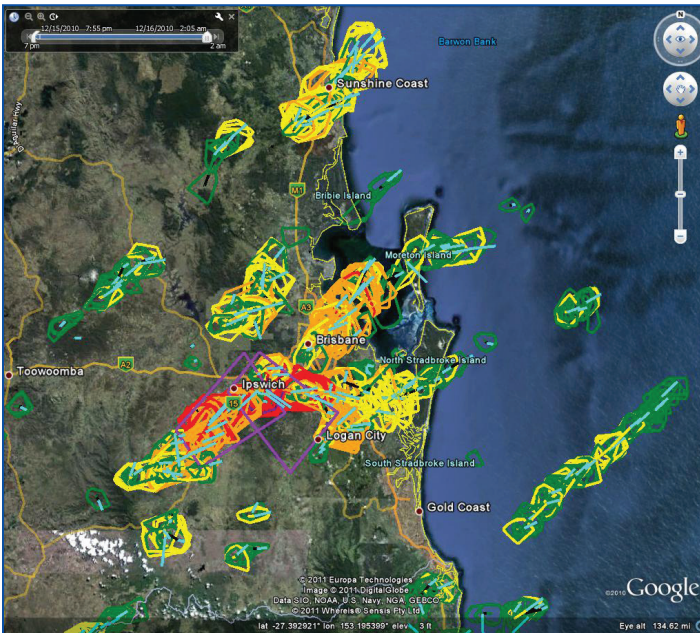


04.24.10 – Eastern Louisiana, US - Dangerous Thunderstorm Alert polygons follow the lightning cell track above. First alert polygon generated 35 minutes prior to tornado touchdown.

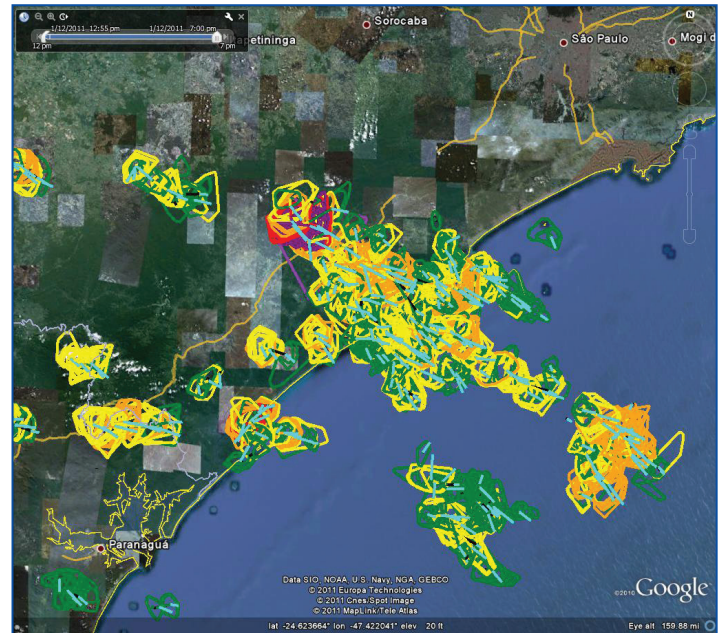
The largest, most sophisticated global lightning network:

TLN advantages:

- More than 900 wideband lightning sensors deployed globally
  - Continuous global expansion underway
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- Cost-effective sensor technology enables dense network build-out on a large scale
  - Flexible scalable network architecture enables deployment of hosted or standalone configurations
  - Very low ongoing maintenance and operational costs



12.16.10 – Brisbane, Australia: TLN detects high density of IC and CG lightning. Storm cell tracking and Dangerous Thunderstorm Alert polygons are also highlighted. Cloud-to-ground lightning blamed for one fatality.



01.12.11 - São Paulo, Brazil: Brazilian Total Lightning Network (BTLN) detects heavy IC and CG lightning which generates Dangerous Thunderstorm Alerts (polygons) on São Paulo. Storm generated deadly catastrophic flooding near Rio.

## Multi-Functional, Wideband system for Unmatched System Performance and Aerial Coverage

- State-of-the-art wideband total lightning sensors
- Unsurpassed detection efficiency and location accuracy
- Complete waveform collection and IC/CG classification
- Remote system diagnostics and upgrade capabilities
- Comprehensive maintenance with 24 x 7 network monitoring and support
- Only cost-effective solution for national (broad area) IC coverage

## Single Locations, Limited Areas of Interest, Global Scale Coverage

Total Lightning Network combines its lightning detection capabilities with its network design and deployment expertise to deliver a scalable total lightning solution. This translates into significant improvements in severe storm warning lead times and associated asset protection. Combined with advanced analytics and display capabilities, Earth Networks solutions meet the needs of weather sensitive users and industries worldwide including:

Federal and National Governments | Utilities | Public Safety | Sports & Rec | Aviation | Energy | Shipping | Education

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