Wide Area Distribution of 'Raw' Information

Distributed networks of sensors yield global physics unattainable with single-point measurements.

Example: Global GPS-derived ionospheric mapping during geomagnetic disturbances.

[Coster et al, 2003]
Great News!

(Bradford W. Parkinson, 9/29/2010 ION)

New Satellite Systems and Signals on the way
Should Enable improved:

- Accuracy
- Availability (and improved Interference rejection)
- Integrity
- Continuity
PNt set to Explode with Opportunities

- GLONASS - (Russia)
  - Next generation 4 new Civil signals at two new frequencies

- GPS (USA)
  - Only Current Operational Civil Signal
  - Next generation 4 new signals at two new frequencies

- Galileo (European)
  - Next generation 4 new Civil signals at two new frequencies

- Compass (Beidou China)

- QZSS (Japan)

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The Future

- Multiple instruments combined, real-time global access, virtual observatories

Future:

NOAA Space Weather Prediction Center control room