

Earth Networks' Perspective

Question: What might the Air Quality Industry learn from the evolution of the Weather Industry?



Earth Networks & The National Oceanic & Atmospheric Administration

Our History of Public-Private Partnership (PPP)

2002: The National Strategy for Homeland Security (Post 9/11)

2003: NRC 'Fair Weather' Report (Partnerships)

2004: Baltimore Water Taxi Incident (MOU for Data Sharing)

2006: UrbaNet (Grant with NOAA/ARL)

2007: EN Served as WMO 15th Congress Private Sector Delegate

2008: NRC 'Ground Up' Report (Observations)

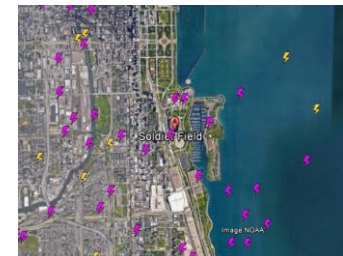
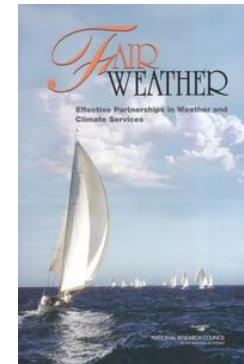
2010: National Mesonet Program (PPP for Observations)

2012: NWS Procures ENTLN (Data Buy)

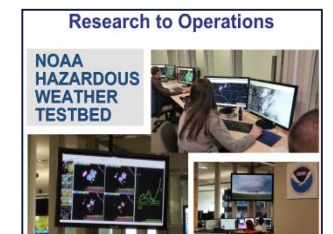
2013: NWS Contract for EN Participation in HWT

2015: NWS Contract for GPS-MET (CRADA -> Data Buy)

2017: Weather Research and Forecast Innovation Act (PPP)



Weather Research and Forecasting Innovation Act of 2017.
15 USC 8501



The Landscape is Changing

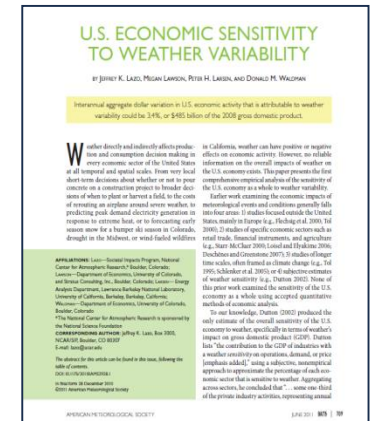
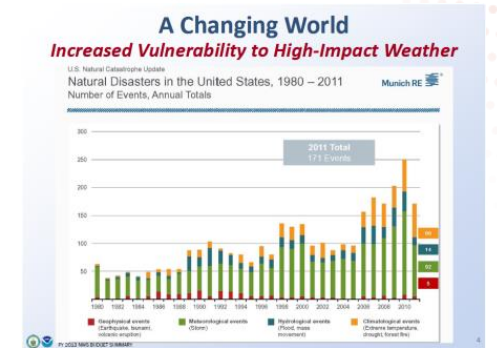
- In just about every area...

- Technologies

- Miniaturization and sophistication of electronics (surface /space based)
- Availability/Scalability of cloud computing (NWP need for obs)
- Big Data Solutions (process/analyze ALL data and identify correlations)
- Data/Communications pathways (bandwidth, platforms)
- Pace of innovation
- Lower costs, broader accessibility, deployability and maintainability

- Awareness

- Impacts on our nation's economy (Lazo)
- Impacts on our nation's safety and security (Urbanization)
- Resiliency and Adaptability
- Weather Research and Forecast Innovation Act



The Landscape is Changing (Continued)

- In just about every area...
 - Capabilities
 - Non-Federal surface observing networks (customer needs)
 - Commercial space-based satellites
 - Human Resources
 - Increased availability of scientific talent outside federal agencies (private sector)
 - Budgets
 - Under pressure at federal, state and local government levels



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Commercial Observations | Advance Commitments

**Commercial Space-Based Earth & Space
Weather Observations**

**Military & NASA Look to Partner With
Commercial Satellite Industry**

by Clara Moskowitz, SPACE.com Assistant Managing Editor
Date: 27 November 2012 Time: 06:32 AM ET

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NEW YORK — In times of dwindling government budgets, the U.S. military, NASA and other federal agencies are increasingly looking to commercial companies to help getting satellites to space.

There is a growing movement among government agencies to start hitching more rides for space instruments aboard commercial spacecraft, rather than building their own completely autonomous satellites. Such a deal is known in satellite circles as a "hosted payload," because a commercial communications spacecraft might "host" an instrument for a

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Commercial satellites such as this one from Intelsat could host more military and NASA payloads, government officials say.
CREDIT: Intelsat
[View full size image](#)

Federal Budget (The 'Fiscal Cliff')



Debt Reckoning

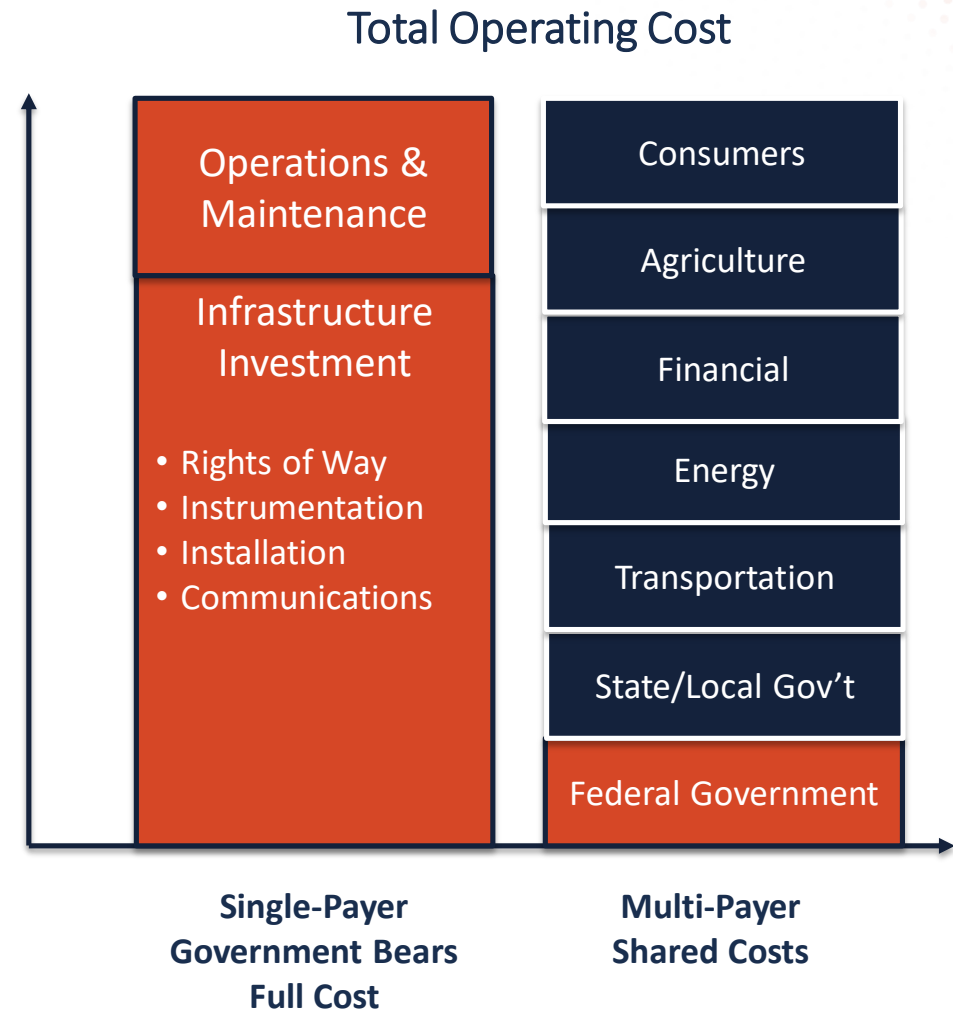
Following the talks between President Obama and Congressional leaders over the fiscal deadline.

- 3:42 PM Credit Ratings Services Give Mixed Reviews to Tax Deal
- 8:52 PM Debt Ceiling Doubt and Its Costs
- 1:52 PM Why It's Hard to Score the Fiscal Deal

Susan Walsh/Associated Press

Shared Benefits Means Shared Costs

- Public-Private Partnerships
 - “Fair Weather”
 - Increased Collaboration and Partnerships
 - “From the Ground Up”
 - Leverage Existing Capabilities First
- Shared Cost Models
 - Spread costs among users



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THANK YOU

COMMENTS/QUESTIONS?

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