



# Data Policy: Keeping up with the times

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AMS Washington Forum

Mary M Glackin  
SVP, Public-Private Partnerships  
Director, Weather Services

## Data Policies – An Inflection Point?

Changes driven by:

- Technology advances
- Amount and variety of data
- Value of environmental information

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**Outline**

1. Where we have been
2. Where we are, and
3. Considerations wrt where we might want to go



International Meteorological Conference, 1879

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As a fundamental principle of the World Meteorological Organization, and in consonance with the expanding requirements for its scientific and technical expertise, WMO commits itself to broadening and enhancing the free and unrestricted\* international exchange of meteorological and related data and products.

*Twelfth WMO Congress, Resolution 40 (Cg-XII), 1995*

\* "Free and unrestricted" means non-discriminatory and without charge. "Without charge" in the context of Resolution 40 (Cg-XII), means at no more than the cost of reproduction and delivery, without charge for the data and products themselves.

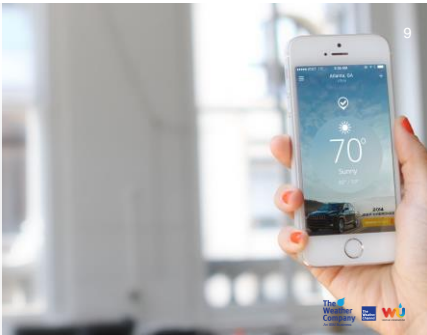
## U.S. Data Policies

- OMB Circular A-130 (1985)
  - Paperwork Reduction Act (1980)
- In our world:
- Saved lives and benefited the economy
  - Spurred innovation
  - Promoted growth across the value chain
  - Created Export Services

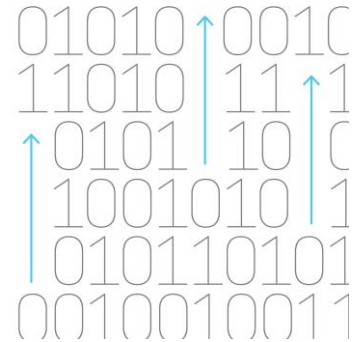
## The Here and Now

### Weather Information has never been more valuable

- To society
- At the consumer level
- Across sectors
- For governments including national security



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terabytes, every day.



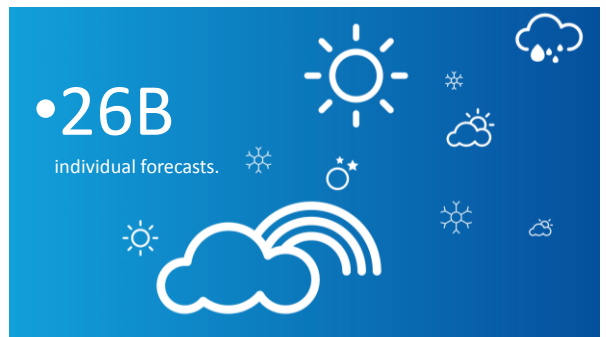
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locations mapped every 15 minutes.

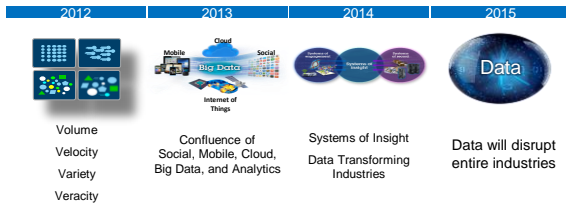


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individual forecasts.



## Recent evolution in the IBM Research Global Technology Outlook: It's all about the Data

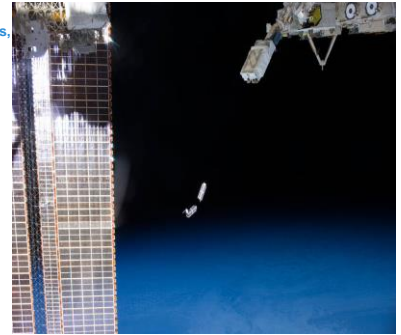


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Do Not Distribute

### Observations, observations, observations.....

- Miniaturization of sensors
- IOT proliferation
- Cheaper access to space
- More commercialization of data



**Weather Underground Personal Weather Stations**  
200,000 globally in March 2016



### TV maker Panasonic says it has developed the world's best weather model

The company says it has beaten the GFS for a while and now equals the ECMWF.

By Eric Berger - Apr 6, 2016 11:36am EDT



**NOAA Big Data Project**

The NOAA Big Data Project is a collaborative effort between NOAA and IBM Research to advance the use of Big Data in weather forecasting and climate science. The project focuses on developing and testing new forecasting models, and on creating a data infrastructure that can handle the massive amounts of data generated by weather satellites and other sensors.

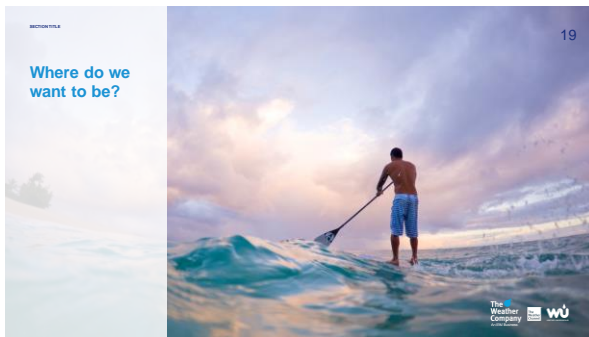
**Participating Organizations:** IBM, Microsoft, CDC, and others.

NOAA's Big Data Project

## Recent Congressional Actions

**H. R. 1561**  
IN THE HOUSE OF REPRESENTATIVES  
Mar. 20, 2015  
AN ACT  
To improve the National Oceanic and Atmospheric Administration's weather research through a focused program of investment on effective and efficient advances in observational, computing, and modeling capabilities to support observational improvement in weather forecasting and prediction of high impact weather events, an original continental observation for the provision of weather data, and for other purposes.

**S. 1331**  
IN THE SENATE OF THE UNITED STATES  
Mar. 11, 2015  
AN ACT  
To improve the National Oceanic and Atmospheric Administration's weather research through a focused program of investment on effective and efficient advances in observational, computing, and modeling capabilities to support observational improvement in weather forecasting and prediction of high impact weather events, an original continental observation for the provision of weather data, and for other purposes.



## Data Policy Concerns and Considerations

- Public Safety Mission
- Economic well being
- Advancement of Science and Services
- Financial
- Closely coupled value chain from knowledge generation to action
- Will require continuous attention

## Add't Public Sector Considerations

- Return value to all citizens
  - Quality, cost effective, access
- Lead globally in inter-governmental forum
- Transparency in action

