



Performance Measurement in the National Weather Service

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*We cannot become what we need to be by
remaining what we are.*

~Max Dupree



Overview



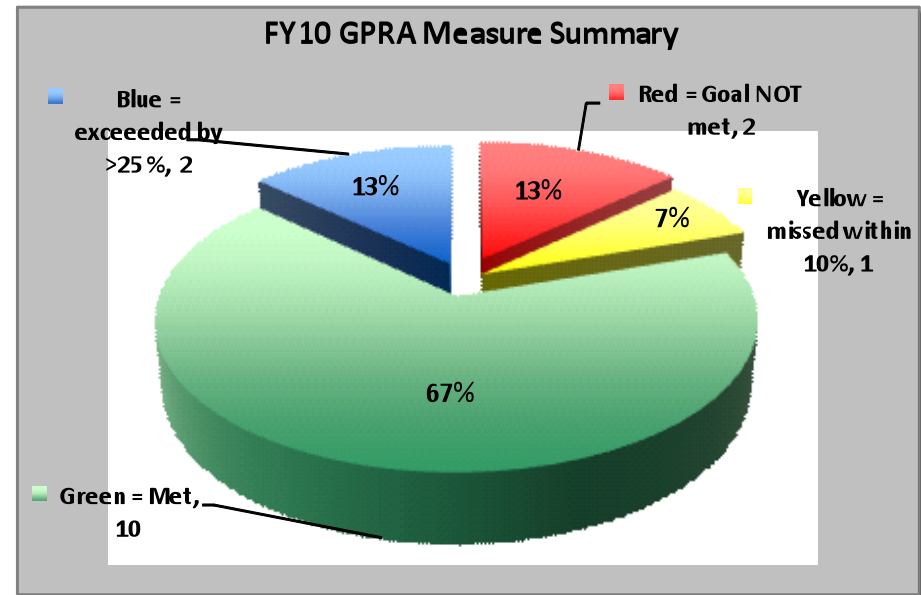
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- Government Performance and Results Act (GPRA) Measures
 - Other Performance Measures
 - Improving Performance Measurement
 - Satisfaction Feedback
 - Summary



GPRRA Measures FY10 Summary



GPRRA Measure	FY10 Goal	FY10 Actual
Tornado Warning Accuracy (%)	70	72
Tornado Warning False Alarm Rate (%)	72	74
Tornado Warning Lead Time (min)	12	14
Flash Flood Warnings - Accuracy (%)	72	79
Flash Flood Warnings - Lead Time (min)	38	71
Marine Wave Height - Percentage (%) of Accurate Forecasts	74	76
Marine Wind Speed - Percentage (%) of Accurate Forecasts	69	74
Aviation Forecasts (IFR Occurrence) – Accuracy (%)	65	65
Aviation Forecasts (IFR Occurrence) – False Alarm Rate (%)	42	36
Winter Storm Warnings - Accuracy (%)	90	90
Winter Storm Warnings - Lead Time (hours)	15	21
US Seasonal Temperature Forecast Skill (%)	24	18
Precipitation Forecast - Day 1 Threat Score (%)	30	35
Hurricane Track - 48 Hr Forecast Error (nm)	107	89
Hurricane Intensity - 48 Hr Forecast Error (kts)	13	15

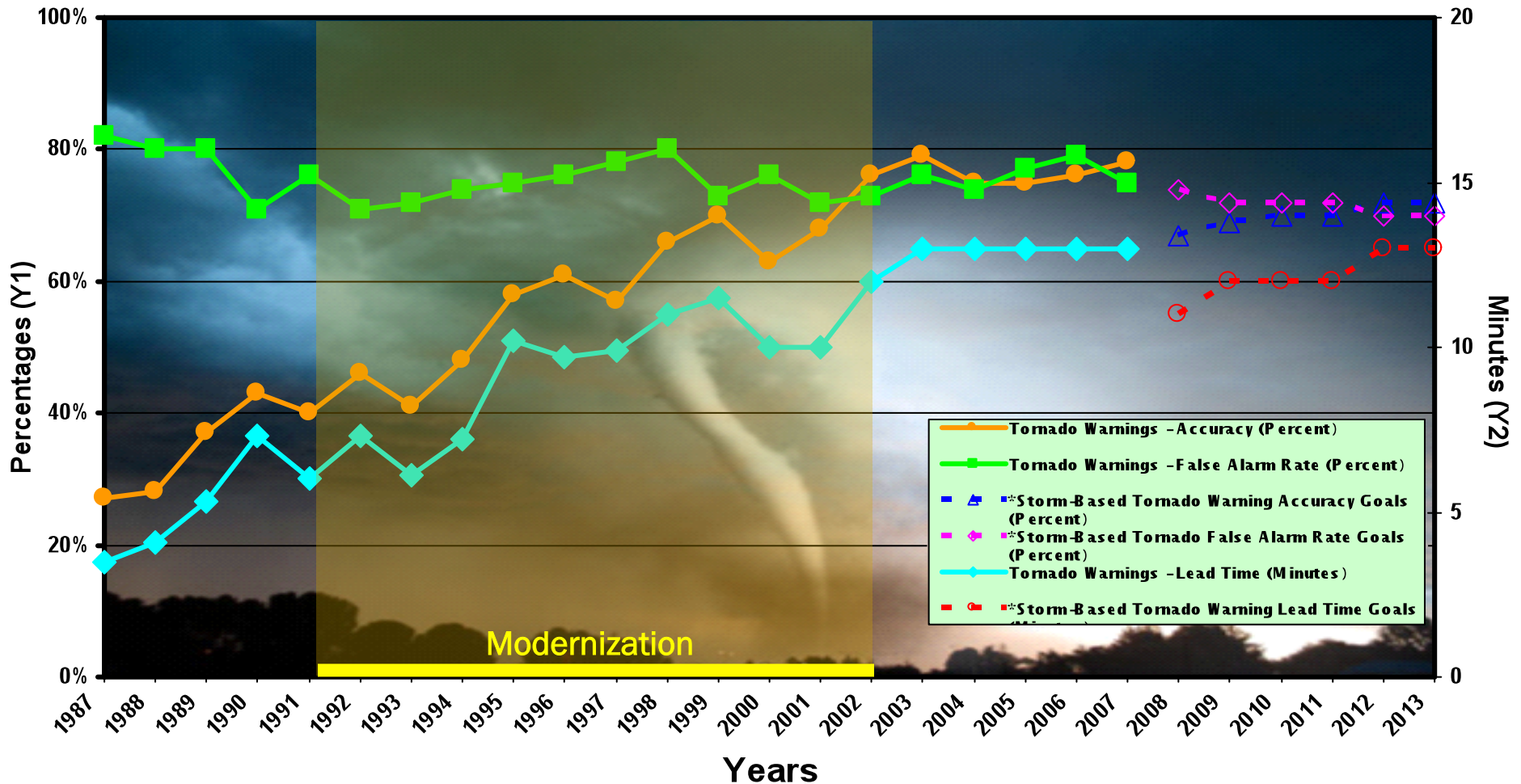


- Met or exceeded 80% of GPRRA targets
- Missed 20% of GPRRA targets



GPRRA Measures

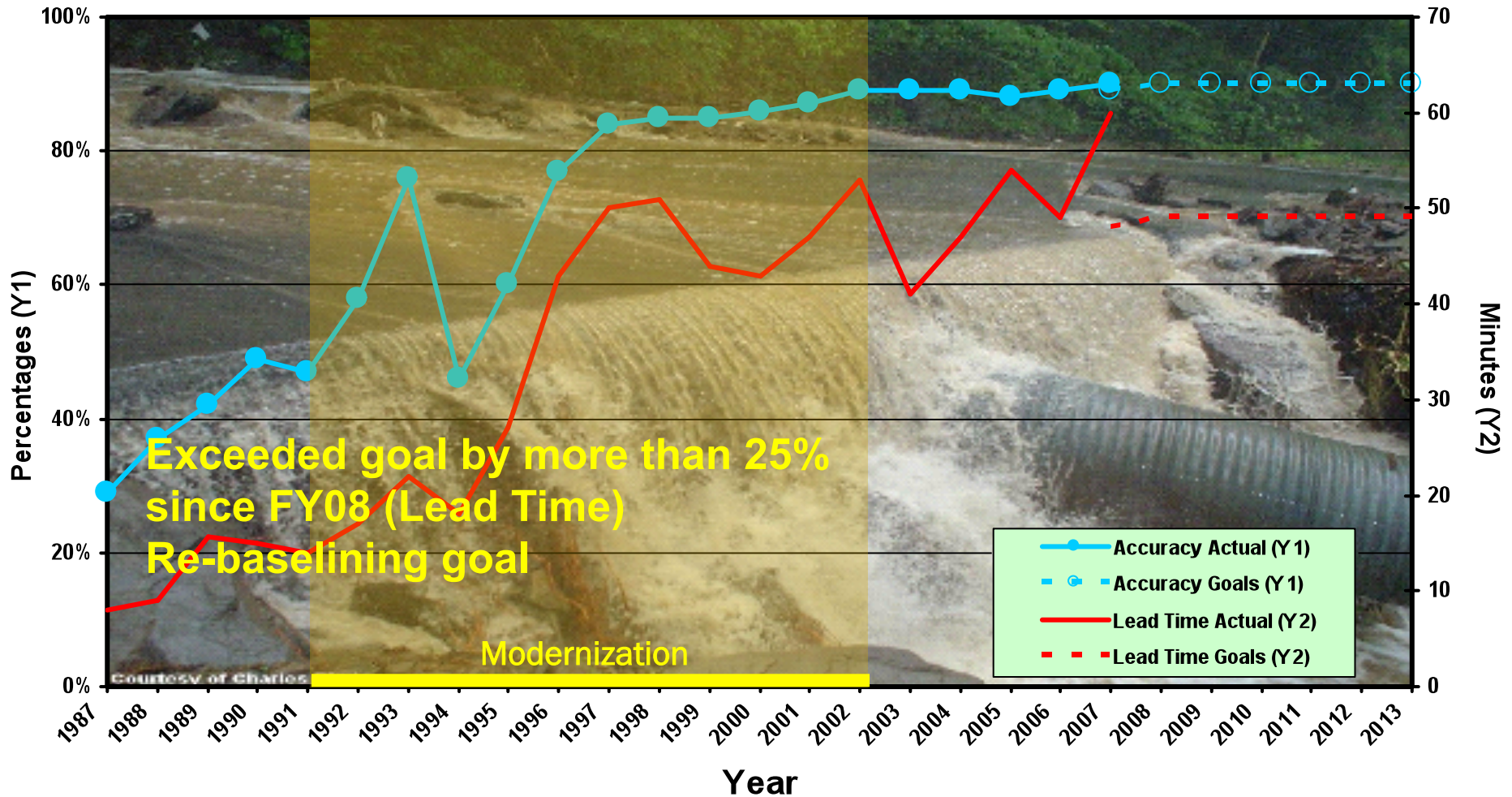
Tornado Warnings



** New performance measures to coincide with the implementation of more precise storm-based warnings.*

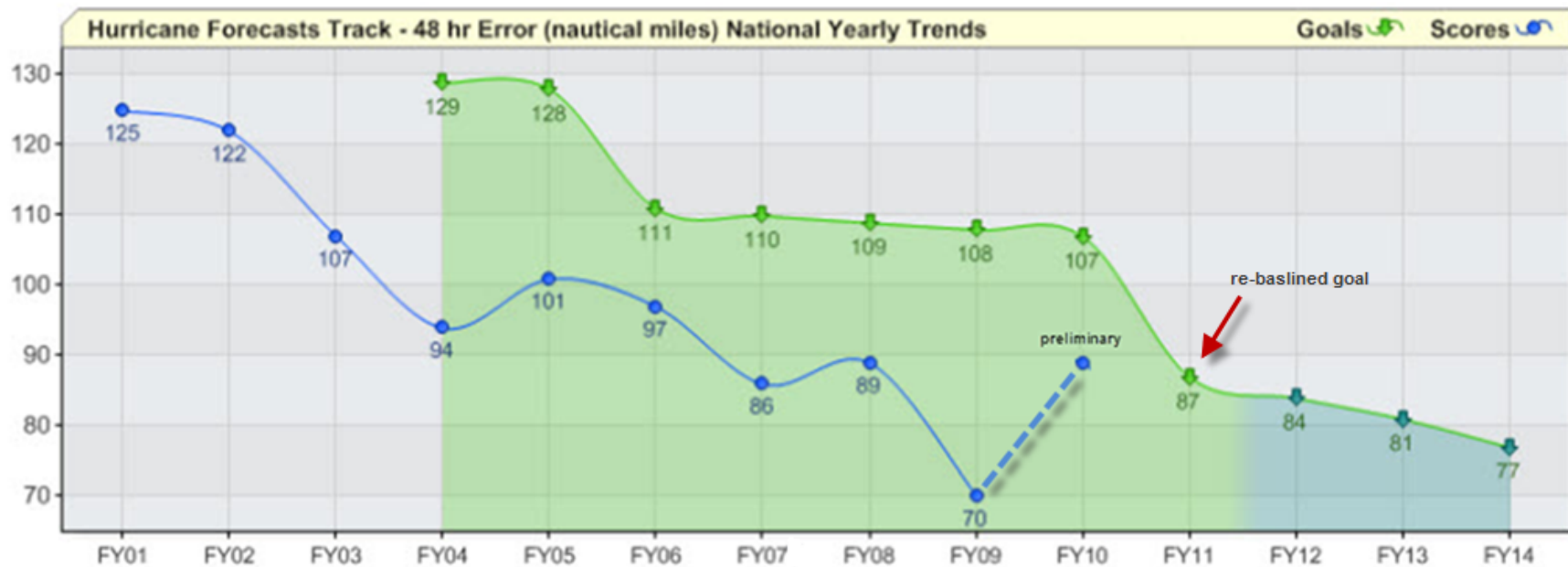


GPRA Measures Flash Flood Warnings





GPRA Measures Hurricane Track Error



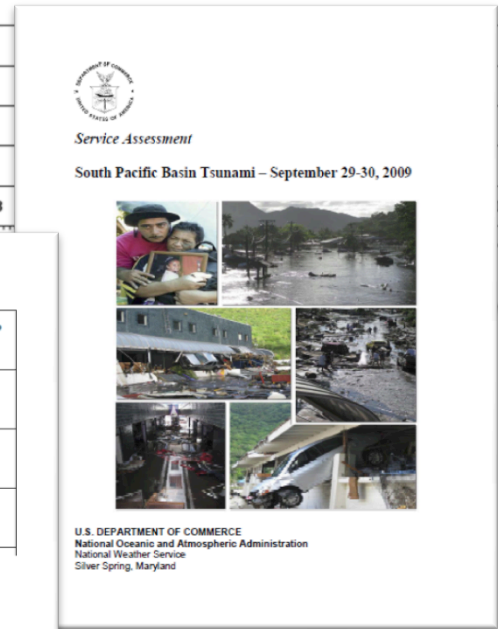
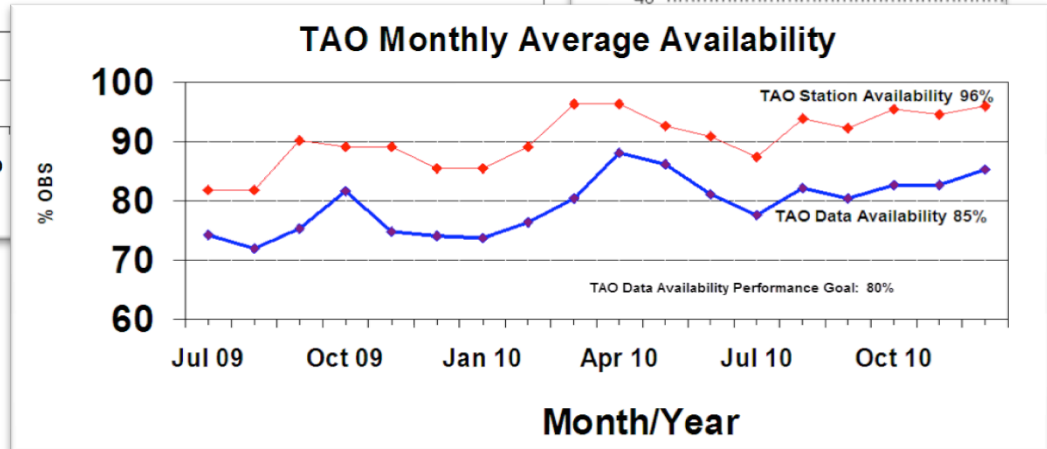
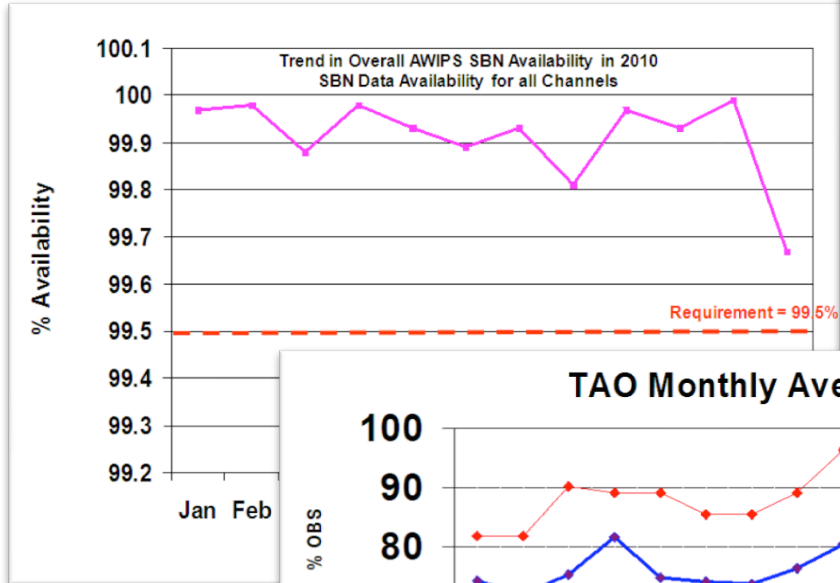
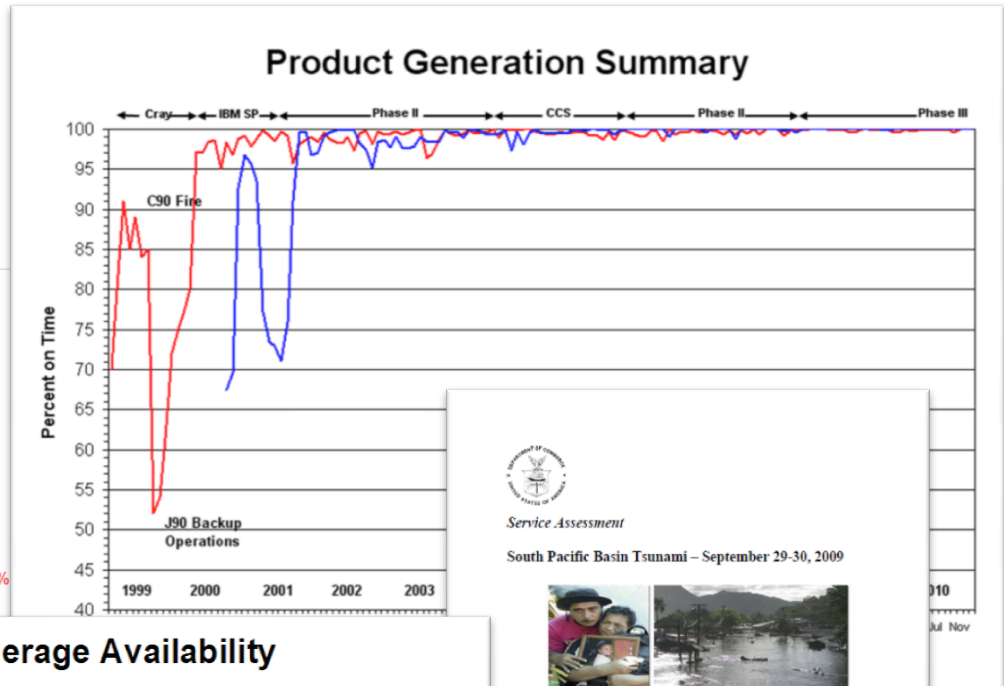
- Exceeded goal by >20% since 2004
- Re-baselined goal for FY11



Other Performance Measures



- NCEP on-time delivery
- SBN availability
- Data buoy availability
- Service assessments

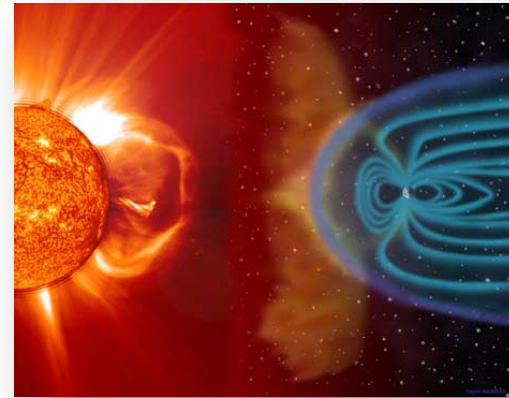




Improving Performance Measurement Measures in Development

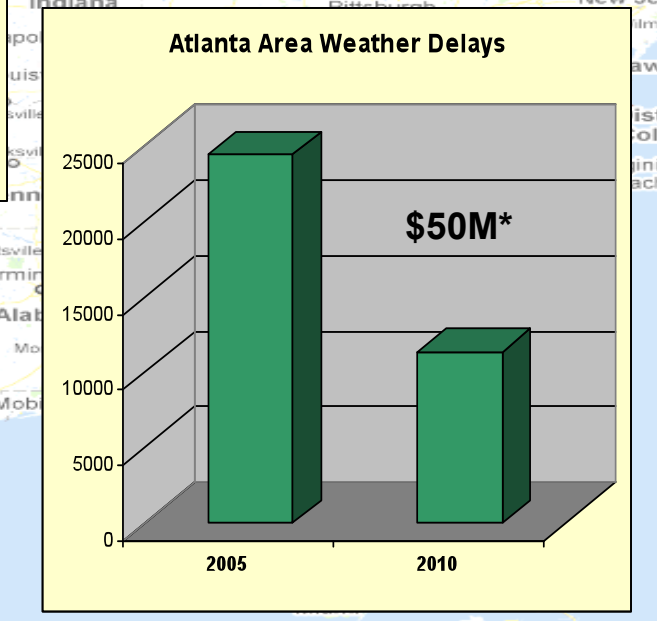
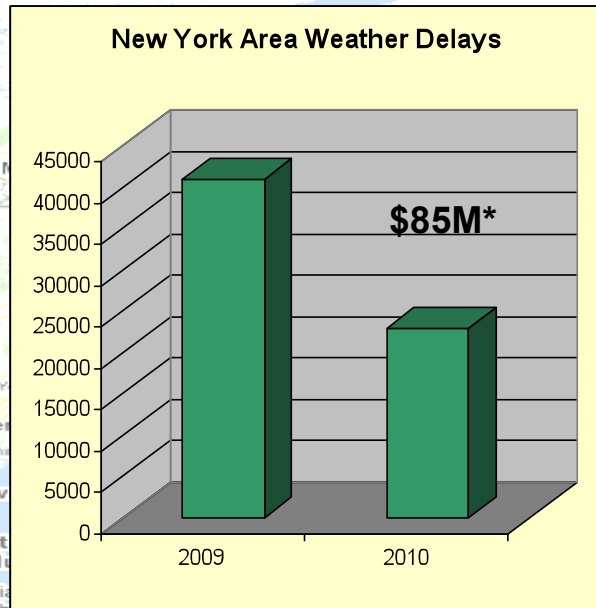
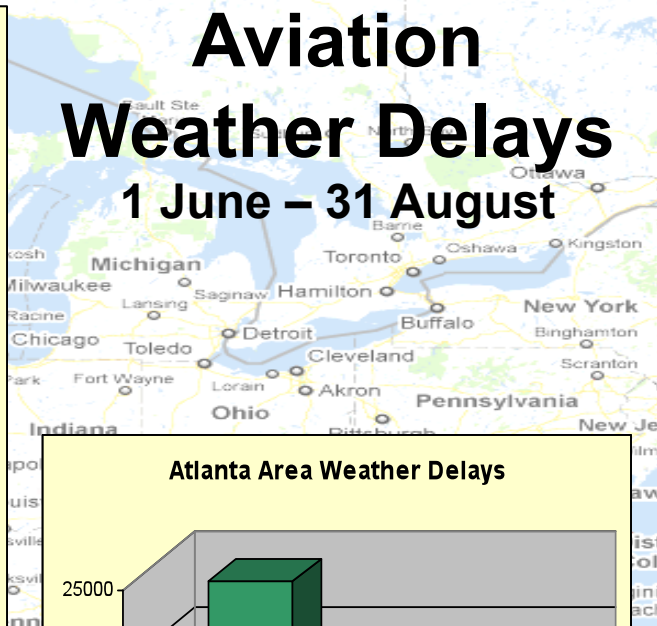
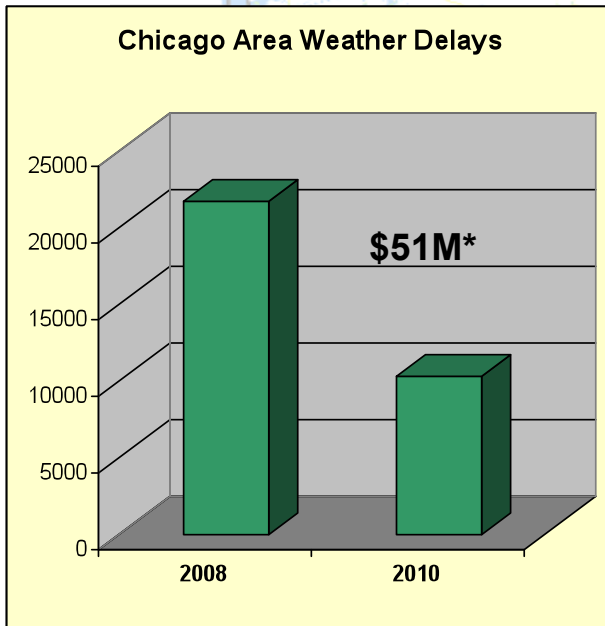


- Tsunami
- Space Weather
- Impact-based climate, water, and weather measures
 - Must communicate to stakeholders and decision makers





Improving Performance Measurement Future Measures



- Reduced weather-related flight delays by 40% to 55% through improved forecasts and FAA collaboration

*Operational Cost Differences



Improving Performance Measurement Future Measures



Customer Satisfaction

- Uses NWS American Customer Satisfaction Index (ACSI) administered by CFI (Claes Fornell Int'l) Group
- Accepted as government standard to measure citizen satisfaction
- ACSI coverage of federal government continues to grow with more than 100 federal government agencies using the ACSI methodology to measure citizen satisfaction
- ACSI also produces scores for the causes and consequences of customer satisfaction and their relationships





Improving Performance Measurement Future Measures



Why Measure Customer Satisfaction?

*"Unless you have 100% customer satisfaction...
you must improve." ~Horst Schulze*

- Surveys provide a sustained, standardized, and quantitative method for gathering user feedback to:
 - Validate existing services and support
 - Ensure products and services continually evolve to meet user needs and expectations
 - Ensure program resources are used to address highest priority needs
 - Baseline and track performance, and compare performance with other public and private agencies



Satisfaction Feedback Analyzing Results

- Satisfaction portal provided by CFI Group allows NWS to view, parse, track, and search feedback data

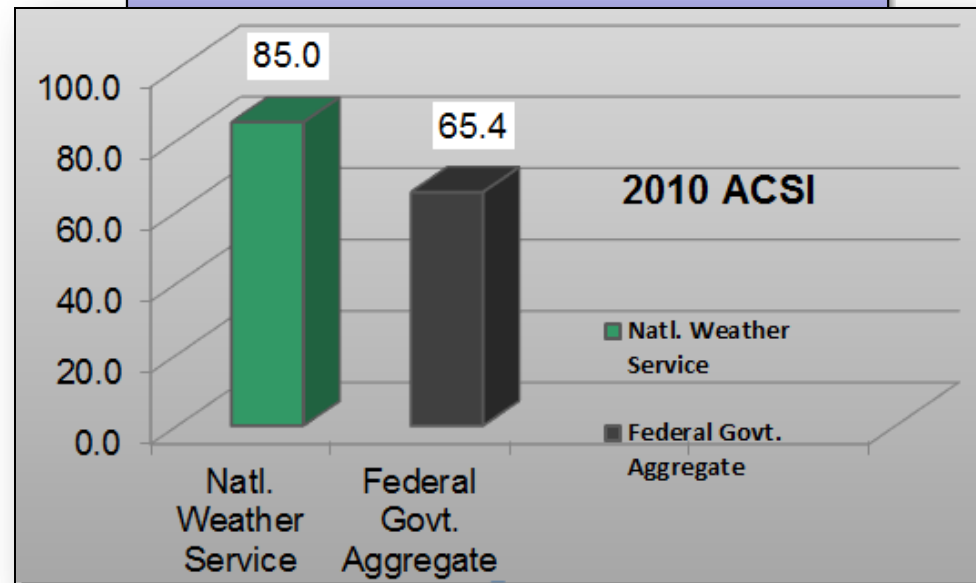
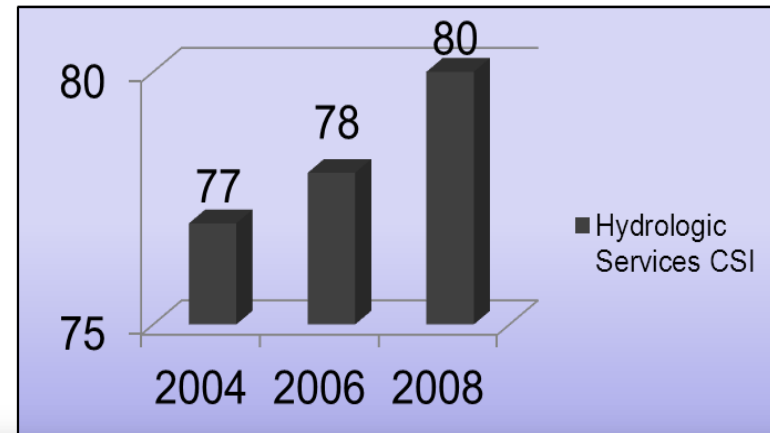




Satisfaction Feedback Tracking and Benchmarking



- ACSI measures government agencies annually
 - Allows government entities to track user satisfaction and compare these results to other organizations in both the private and public spheres.
 - Survey completed in 2010 with NWS score 20 points higher than federal agency aggregate





Summary



- GPRA Measures used to actively manage NWS services
- Other performance measures used to monitor and evaluate many other agency processes
- Future Improvement
 - Current GPRA measures only tell part of the story
 - NWS working to measure customer-based impacts
 - Annually measuring customer satisfaction



Backup Slides





NWS FY10 GPRA Measures Summary



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Winter Storm Warnings - Accuracy (%)	90	90	89
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ACSI Model

- Administered by CFI Group, developers of the ACSI.
- Web-based (or mixed mode)
- Survey components include:

