



Operational Bridging for Convective Weather: Demonstrations and Implementation Plans



Collaborative Decision Making Weather Evaluation Team

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Aerospace Meteorology
Los Angeles, CA*



Agenda:

- **Concept overview and development**
- **“Table top” demonstration recap & findings**
- **Live operational demonstration plan**

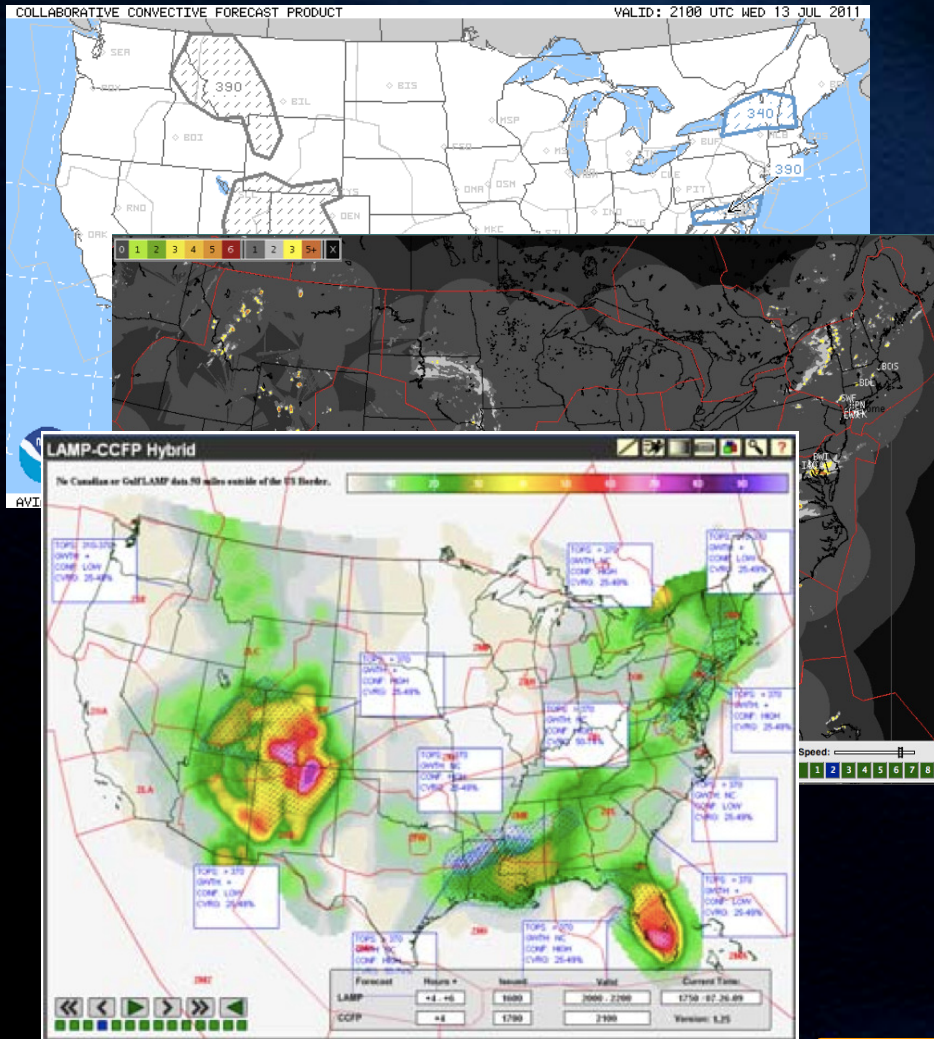


Concept overview: requirements

- **WET taskings from CDM Stakeholders Group (CSG)**
- **Incorporate NextGen concepts**
- **Interpretation / application of probabilistic forecasts**
- **WET: Evolve the CCFP concept**



Concept overview: CCFP evolution



Current

- Issued every 2 hours
- 2-4-6 hour intervals
- Hand-drawn
- Criteria-driven

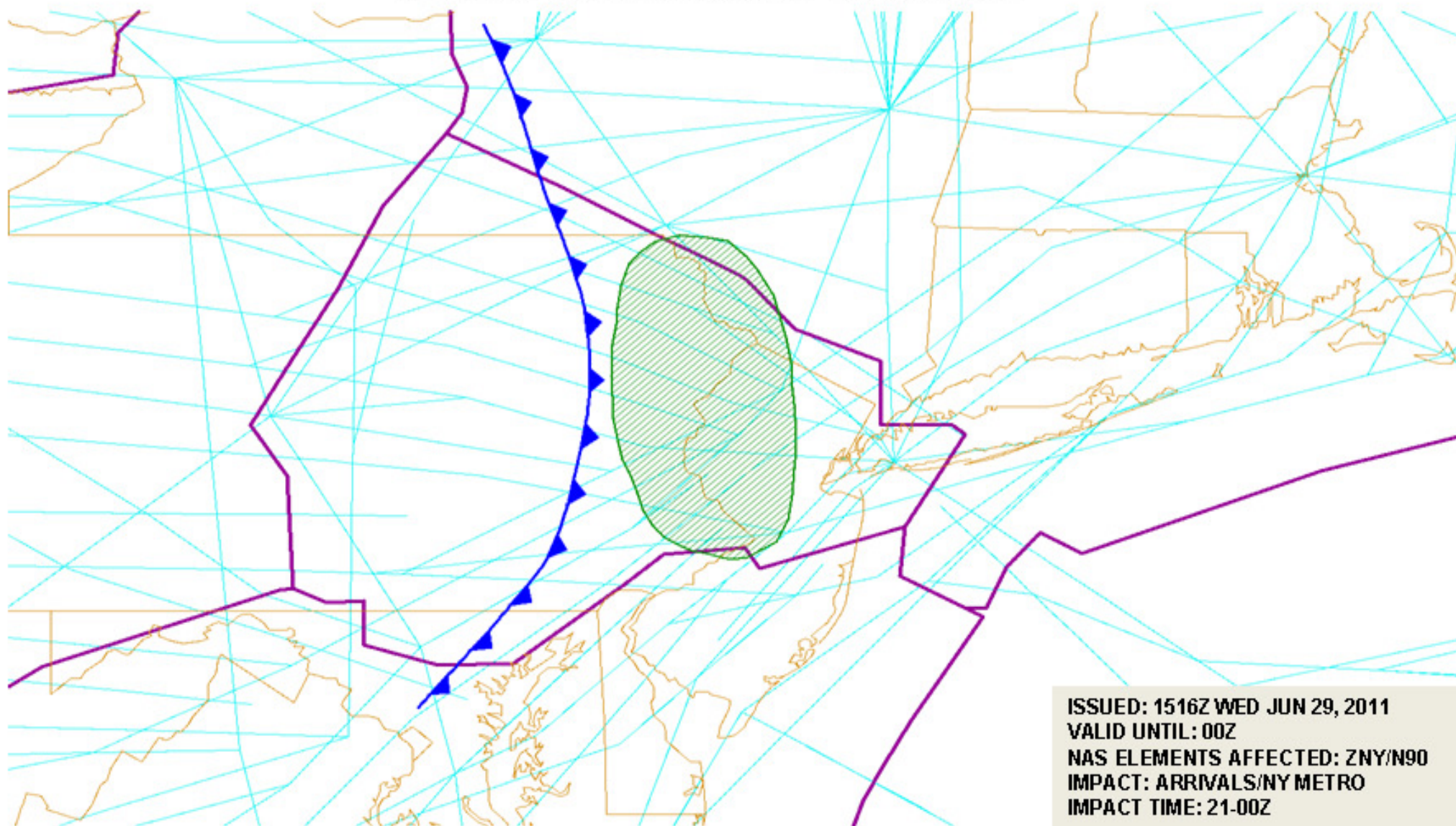
Evolved

- Event- and impact-driven
- More robust communication
- Leverage automation & multiple forecast sources
- Adjust role of human met.



AVIATION WEATHER STATEMENT

NWS AVIATION WEATHER CENTER KANSAS CITY



ISSUED: 1516Z WED JUN 29, 2011
VALID UNTIL: 00Z
NAS ELEMENTS AFFECTED: ZNY/N90
IMPACT: ARRIVALS/NY METRO
IMPACT TIME: 21-00Z

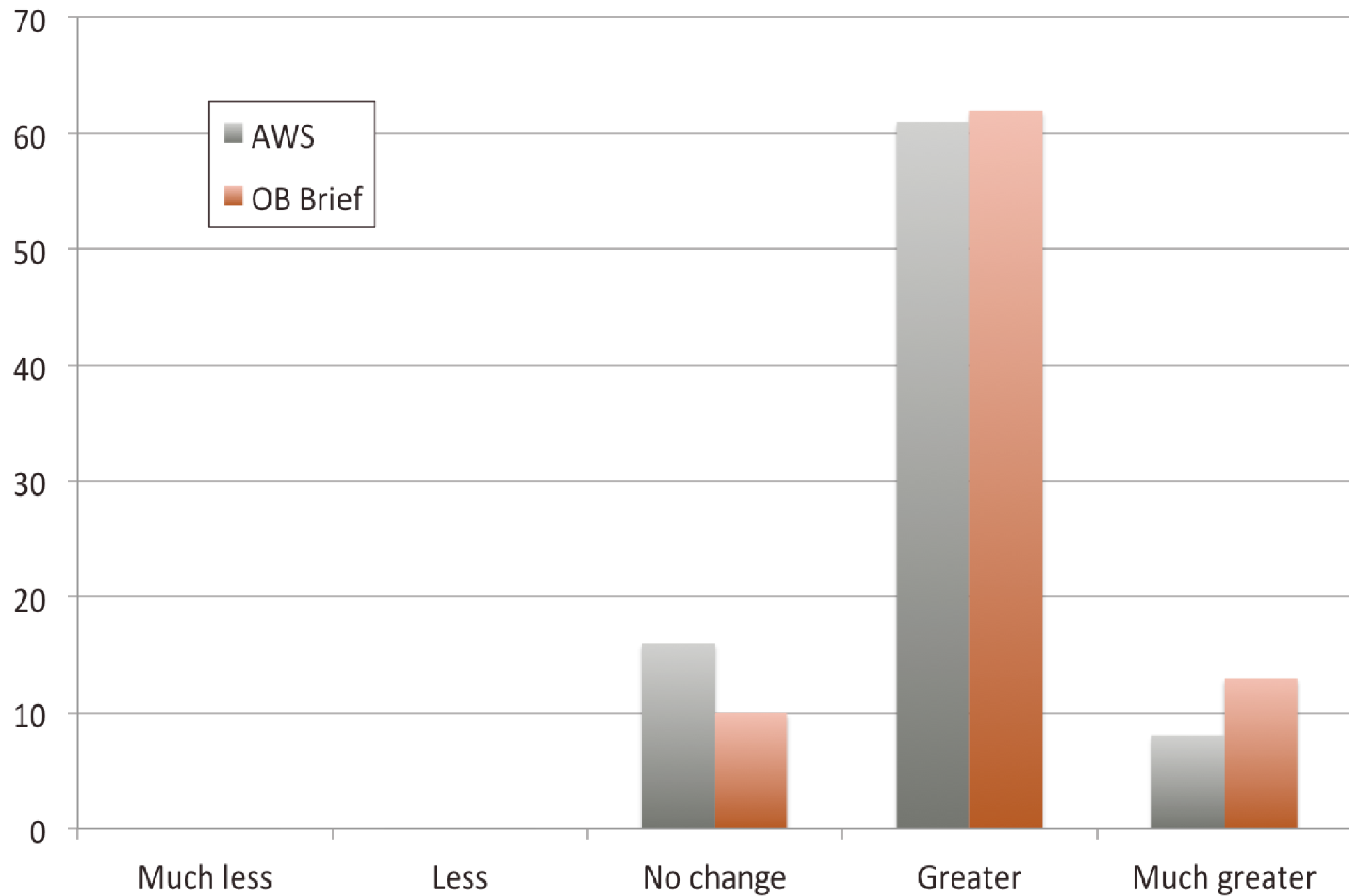
DISCUSSION...RECENT VIS SAT IMAGERY REVEALS DEVELOPING CU FIELD OVER E PA EXPECTED TO DVLP INTO ISOL CLUSTERS OF CONVECTIVE CELLS BY 19Z AND CONT E ACROSS N NJ BY 21Z AFFECTING N90 AND NY METRO BETWEEN 22-00Z. COSPA IN GOOD AGREEMENT WITH CELL MVMT AND CVRG CRITERIA (25%). ACTIVITY EXPECTED TO WEAKEN AND GRADUALLY DISSIPATE AFTER 23Z AS TSTMS MOVE E OVER LI AND ADJ WATERS. MAX TOPS TO FL350, MEAN STORM MOTION VECTOR 26035.

“Table Top” Demonstration

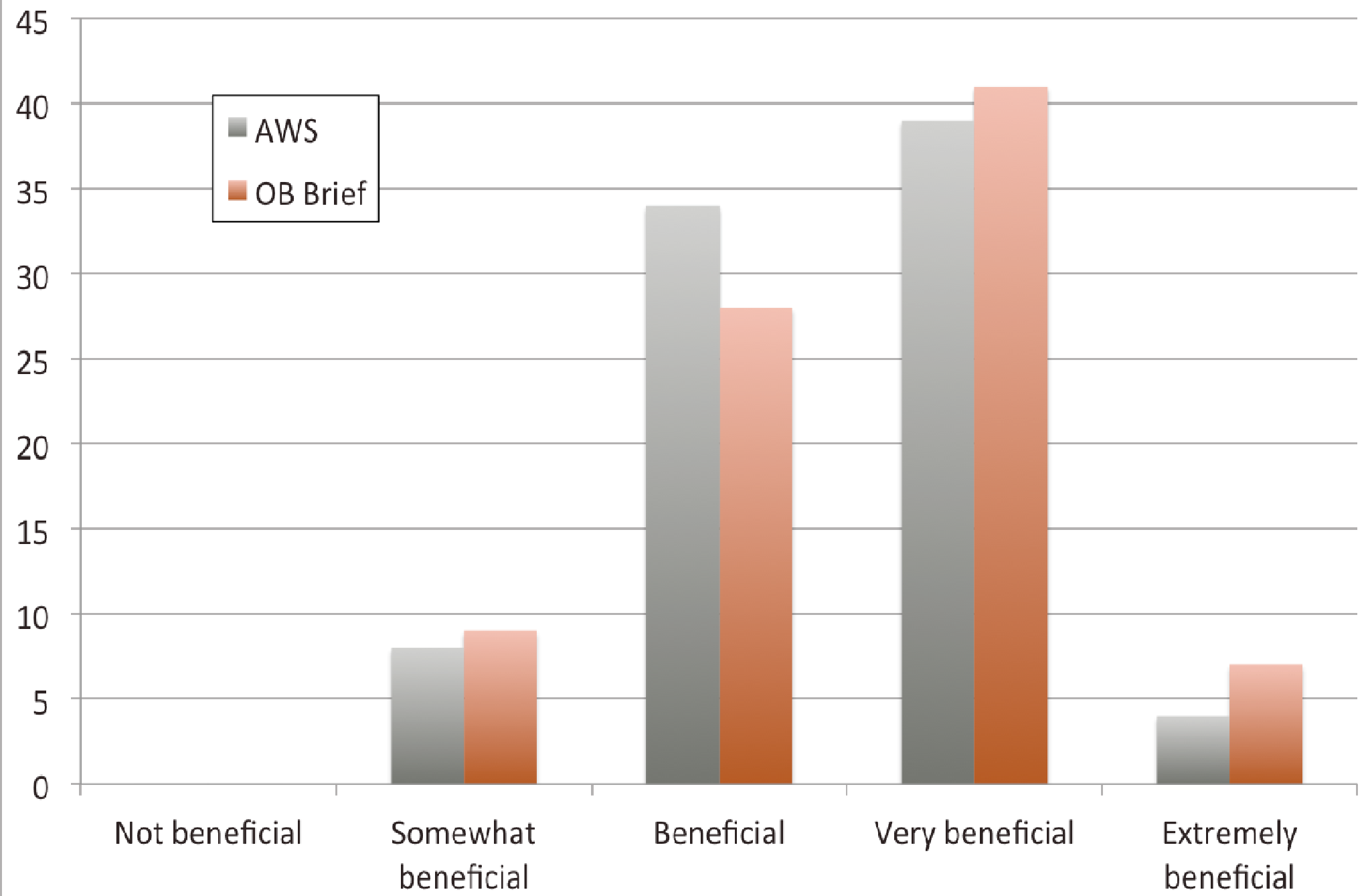
- **Occurred at CDM General Meeting (ATL, May 2011)**
- **Methodology**
 - Up to three scripted “scenarios” presented on a virtual time line
 - CoSPA and CCFP data provided
 - AWS and OB “call” interjected at the appropriate times
 - Users surveyed for change in understanding of the weather/ATM impact situation and perceived benefits
- **Respondents**
 - 85 total (50 US ANSP, 18 aviation industry, 17 other)



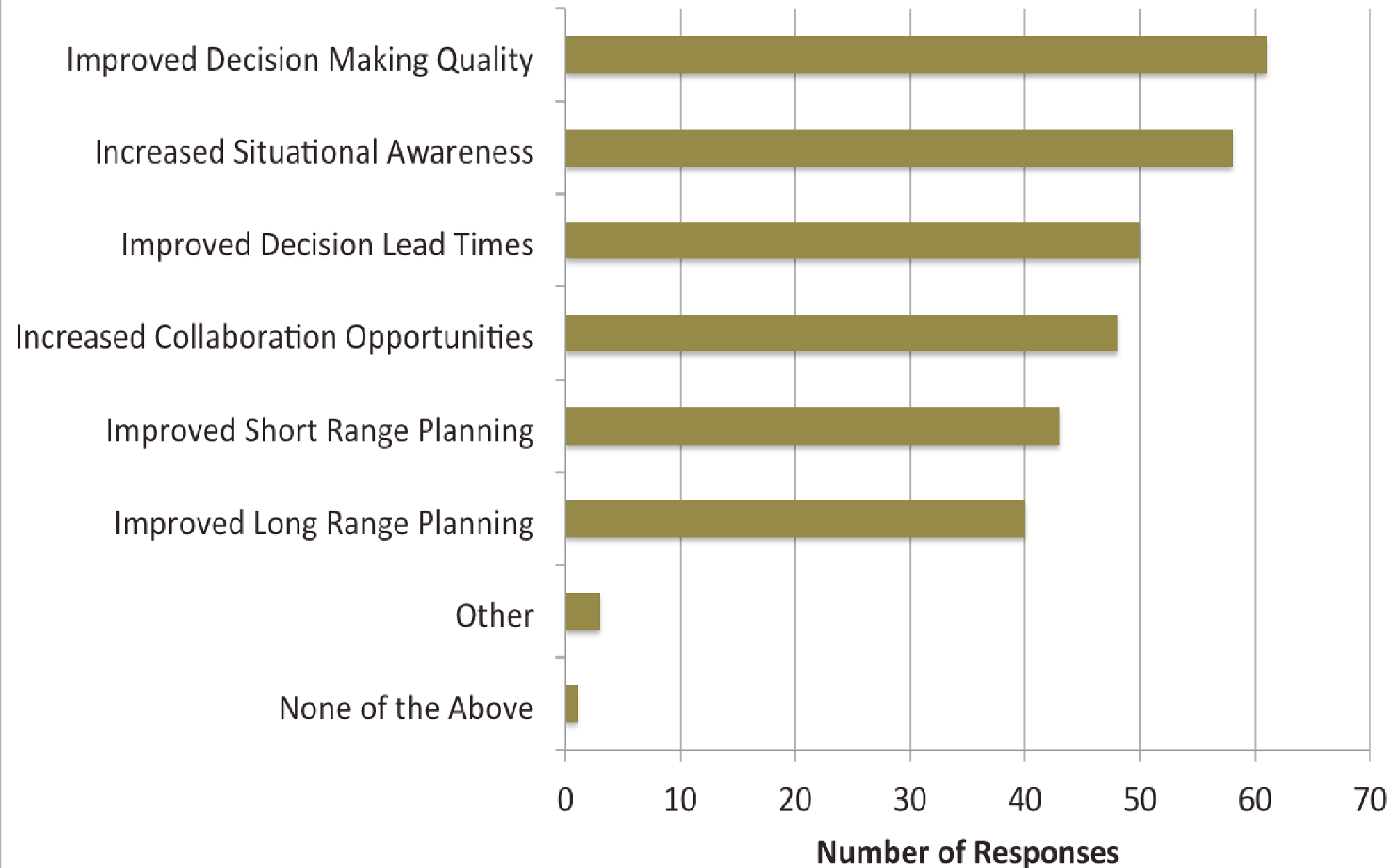
Indicate the change in your level of understanding of the impact of the forecast convective situations after receiving the (AWS, OB briefing)



Rate the benefit provided by the (AWS, OB briefing) used in the scenarios.



Indicate which of the following outcomes may be attributable to Operational Bridging



Live operational demonstration

CDM community response to Table Top demo

- Surveys very positive
- Verbal feedback from key stakeholders
- CSG endorsement to proceed with plans

Demonstration scheduled August 2011

- Hosted by AWC Testbed
- Facilitating meteorologists from several CDM airlines
- Ad hoc scheduling



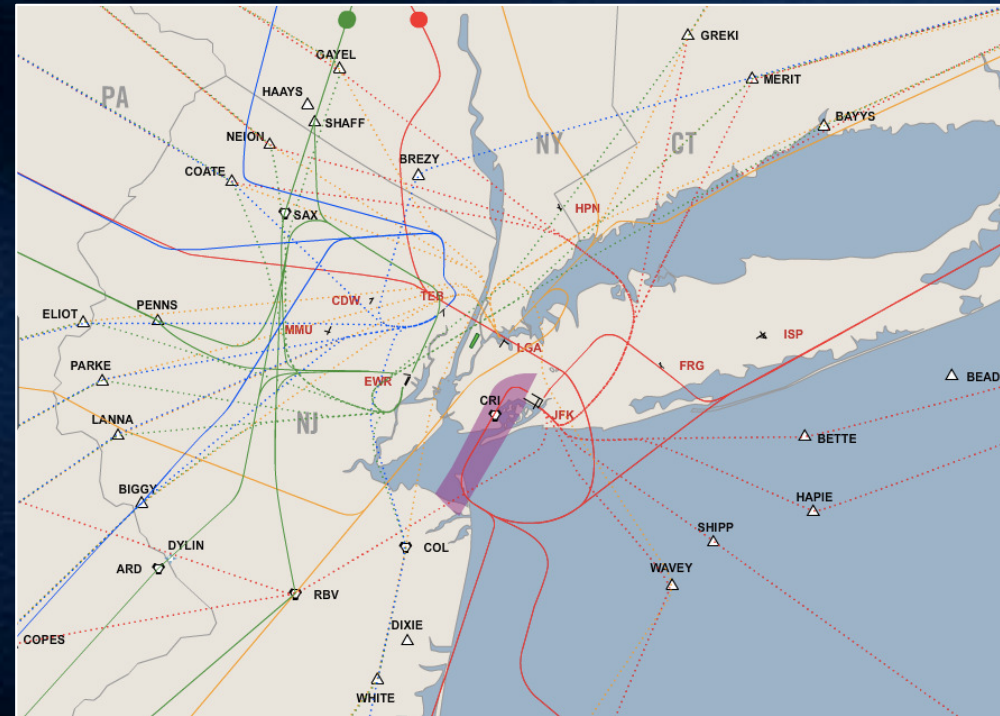
Live operational demonstration

Scope

- Convective weather only with impact in the NYC metroplex
- Targeted facilities: ATCSCC, ZNY, ZDC, N90
- Airlines and NOAA/AWC

Measurements of success

- Based on observers' reports
- Improvement in TMI use (timeliness, appropriateness)
- Improvement in forecast verification (accounting for traffic impact)



Live operational demonstration

● **Outcome: Post-demonstration report**

- Value added over CCFP, CIWS and CoSPA
- Ease of interpretation of AWS
- Sufficiency of training
- Forecast skill/quality with respect to existing products
- OB accuracy correlated to appropriate time frame

● **Recommendation on next actions for implementation**

● **Report issued by Sept. 30; published on WET web page**

- flycdm.org

