Quantifying Monetary Impacts of Forecasts

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Measuring the Value

• How do we measure our improvements without any existing benchmarks?
• What meaningful measurements can be realized that benefit both the “consumer” and “producer” of the information?
• How can we measure easily available items to get this process started?
Airline Perspective

• Airlines are not always able to quantify weather support.
  – Quantifying weather delays are fairly easy.
  – Quantifying “avoidable” weather delays are not.

• Most efforts to quantify benefits are not done to an industry standard.
  – Fleets are different.
  – Service areas are different.
  – Route structures are different.
  – Schedules are different.

• Competitive forces may also inhibit sharing of data.
Airlines already measure and report some of this information

- Each month carriers report to the DOT:
  - The number of weather delayed flights per month.
  - The number of delay minutes due to weather.
- At Southwest we also internally report delays for:
  - Gate hold for weather at departure station.
  - Gate hold for weather en route or at destination station.
  - Cold soaked fuel frost delay.
  - Deicing Delays.
NWS TAF Verification

- NWS TAF Verification considers:
  - General Ceiling
  - Visibility
  - Flight Category
  - Weather Type/Obstruction
  - Wind
Connecting the Dots

- How do we compare the two data sets to provide meaningful results?
- How can en-route forecasts (ie. CCFP) verification results be compared with delay information?
- How does the information get reported?
- How many airlines can/will participate?
- Who performs the analysis?
- What priority does this have with both the government and industry?
Going Forward

• Suggest a one day meeting with interested stakeholders to:
  – Identify short term and long term goals.
  – Evaluate barriers (technology, resources, proprietary information issues etc.).
  – Identify ownership of this effort.
  – Establish a working committee.