Turbulence Avoidance

What now?

Turbulence Basics

- Drivers – Safety, Efficiency/Emissions, Capacity, & Customer Experience
- Primary users- Meteorologists, Dispatchers, Crews, & Controllers
- How does it work today?
- Solution Components
  - Forecast
  - Tactical/Now cast
  - Reporting

History

- 1991 - NCAR began development of EDR
- 1999 - UAL installed EDR with major airlines to follow
- 2005 - NASA *rms-g algorithm* tested on 80 DAL B737
- 2007 – Delta installs EDR on B737
- 2008 – Delta – Ops Control feasibility test of EDR
  - Information well received by dispatchers
  - Limitations – Hard to provide tactical info to 15-20 flights
- 2013 – Delta - GTG/EDR in the cockpit using WIFI
  - Very positive results
  - Now what

Next Steps

- How to correlate different reporting metrics?
- How to increase the report pool?
- Who hosts the turbulence reports data?
- Who has access to the data?
- How to harmonize international community?
- How to move forward with different viewers?
- How to maintain the system as SA tool?

Positive Outcomes

- FAA solution for EDR standards
- FAA solution for standardized installation
- A4A solution for data
  - Government
  - Commercial
- FAA international work & airline partnering
- New tools compared to PIREPS

You tell me if this helps