Rockwell Collins
Friends/Partners in Aviation Weather
Progress in Turbulence Information Forum
NBAA - Orlando
Roy E Robertson
November 11, 2005
Unexpected Turbulence Encounters are the Highest Cause of Passenger and Flight Attendant Injuries

Up to 85 Percent of Turbulence Encounters Related to Convective Activity
Rockwell Collins Radar Product Families

WRT-2100 R/T

Collins ARINC 708A MultiScan and Windshear Radars

Antenna

Pedestal

Collins ISS ARINC 768 MultiScan Radar

Collins RTA Family of Business/Regional Radars
Key Radar Operational Capabilities

- Strategic and Tactical Weather Avoidance
- Turbulence Detection
- Overflight™ Protection
- Path Attenuation Compensation / Alert
Enhanced Turbulence In-Service Evaluation

Government / Industry Partnership:
NASA, Aero-Tech Research
Delta Airlines, Rockwell Collins

- WXR-2100 MultiScan Platform
- Advanced Turbulence Detection Algorithm
- Displays Predicted Aircraft “G” Loads
- Two Level Turbulence Displays
  - Ride Quality
  - Safety Hazard
On-Board Turbulence Sensor Technologies

- Improved Radar Weather Avoidance Capabilities
- Enhanced Radar Turbulence Detection
  - Improved Detection Algorithms
  - Improved Display Presentations
- Automated Turbulence Reports and Dissemination
- Future Clear Air Turbulence Sensors
User Needs and Issues

- Turbulence Education and Awareness
- Turbulence Communications / Protocols
- Empowerment for Cabin Safety Decision Making
- Harmonization of Turbulence Manuals and Policies
- Operational Limitations - Forecasting