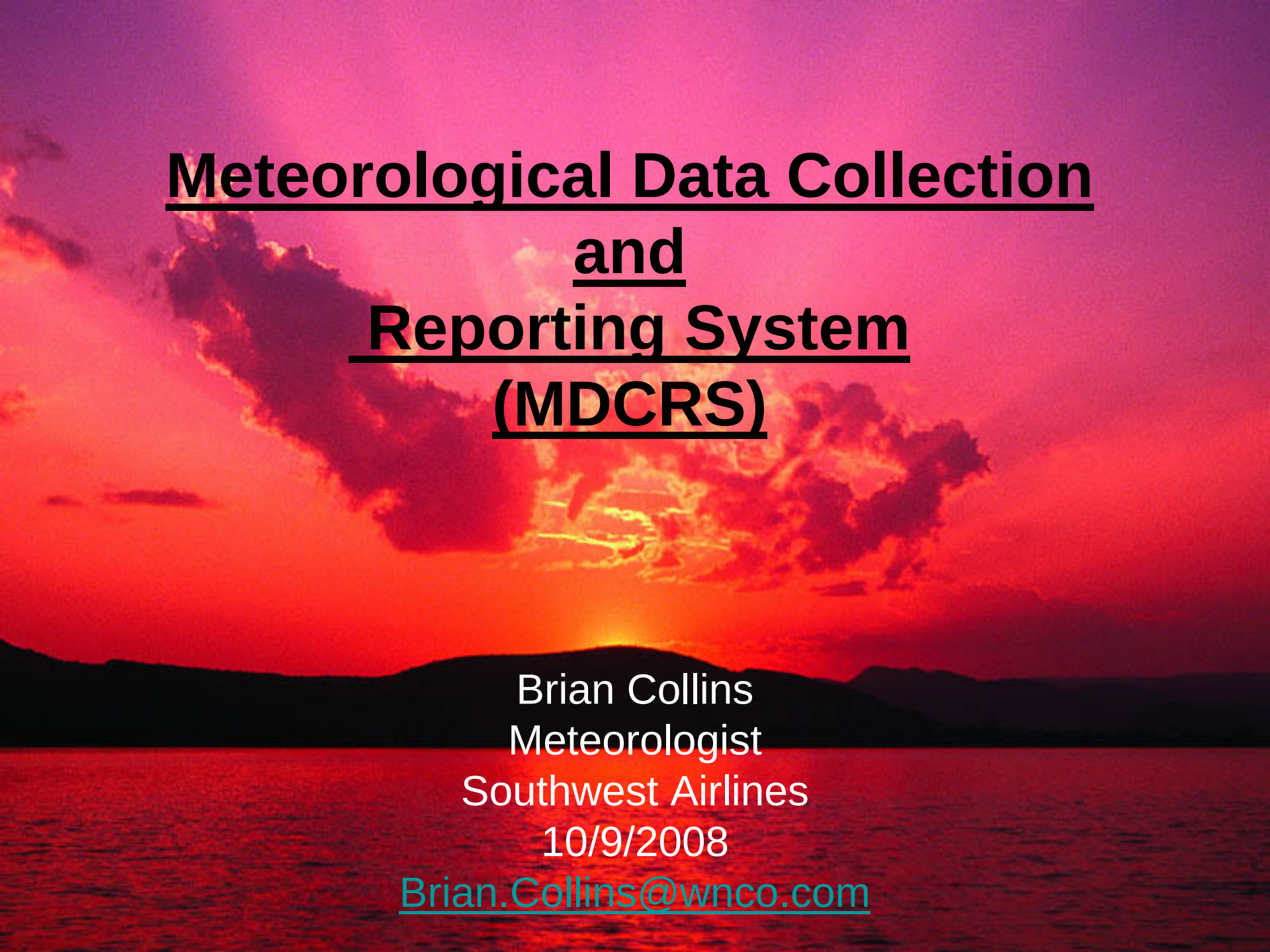

Meteorological Data Collection and Reporting System (MDCRS)

Brian Collins
Meteorologist
Southwest Airlines
10/9/2008
Brian.Collins@wnco.com

Current State

- Seven Airline Participants (AA, Delta, FedEx, NWA, SWA, United, UPS)
- Data Communication costs are shared 50/50 between airlines and gov't (NWS & FAA)
- Real-time data access restricted to participating airlines (via NWS-ESRL web site) and government agencies
  - Aircraft obs are largely limited to winds & temp
  - Aircraft obs frequently over-reported at airline hubs, and under-reported at smaller or less-busy locations
- Other than PIREP's, airlines don't have access to any other programs that provide real-time obs of in-flight weather

SOUTHWEST.COM®

Desired Future State

- Comm. costs for MDCRS to be covered in full by gov't agencies in return for access to de-identified aircraft reports (goal for next MDCRS contract in 2011)
- Aircraft Weather Observations
  - Reported where & when needed through some level of data optimization system
  - Implement standardized reporting rate, fidelity, and format.
  - Delivered over standardized comm. systems (NOAAport), available to everyone that desires real-time access
- Interim step for aircraft observational reporting which will need to align with requirements to be defined and implemented with NextGen and JPDO
- Implement an enhanced process for allowing additional program participants

Issues and Considerations

- Each of these issues is extremely difficult and requires frank and open discussion among all stakeholders
- Began process of working towards future state again in early 2008
  - Process slow due to conflicting priorities at airlines and gov't
  - Effort being re-energized for continued work in 2009
- Various Needs
  - Additional definition from NWS & FAA on more specific data req's
  - An honest account from airlines on what they can deliver in terms of increased and standardized data reporting
  - Additional assistance from JPDO for long term NextGen considerations

NWS Water Vapor Project

- NWS contracts
  - Awarded to ARINC for installation of 31 water vapor sensors on SWA aircraft
    - SWA teaming with ARINC and SpectraSensors on installation and certification issues for the sensor
  - Awarded upgrade to UPS to retrofit 25 current water vapor sensors on UPS aircraft with newly upgraded sensor.
- Schedule
  - Expect an Electromagnetic Interface (EMI) test on a sensor installed on SWA aircraft in late Oct or early Nov 2008
  - Expect SWA aircraft to begin transmitting automated water vapor reports early first quarter of 2009
  - Expect UPS aircraft to begin transmitting automated water vapor reports later in first quarter of 2009


Thank You!