



# Surface Observations for an Operator

***Captain Steve Jangelis***

**Aviation Safety Vice Chairman**

**Air Safety Organization**

**Air Line Pilots Association, International**

Surface Conditions and the Absence of Observations  
Washington, DC August 3, 2016

# Agenda

- When Do Pilots Use Surface Observations?
- What Do Pilots Do with Surface Observations?
- Accuracy and Validity of the Data
- What Happens if Surface Observations are Missing?

# When Do Pilots Use Surface Observation?

- Takeoff and Landing Phase; Weather briefing must include
  - Departure Observations
  - Destination Observations
  - Destination TAF
  - Alternate Airport Observations (if required)
  - Alternate Airport TAF(s) (if required)
  - Any hazard to flight identified by the Dispatcher as relevant to the safe operation of the flight. (Volcanic eruption, Mountain waves, etc)

# What do Pilots do with Surface Observations?

- Compute aircraft performance, often known as Takeoff and Landing Data (TOLD)
- Determine which runway is in use, if Control Tower closed.
- Determine if airport is equipped for the operation due to weather. (Category III Approach)

# Accurate and Valid Surface Observations

- Pilots need to trust surface data for the purpose of computing aircraft performance
  - It's critical for pilots when receiving surface information that the data is accurate
  - A safe takeoff or landing depend on accurate data
- Pilots Consider the Source of the Data
  - Tower, ATIS, Weather Observer, ASOS

# Reports

- Whether VMC or IMC, Pilots will not takeoff or conduct approaches to any airport without a valid report of airport weather conditions.
- Dispatch IS allowed without a report IF a valid weather report can be obtained prior to commencing the approach.

# Validity

- Reports obtained from ATIS, AWOS/ASOS, FSS, VOLMET, the Dispatcher or any Air Traffic Controller are considered valid.
- Report must contain the following:
  - Time of the observation
  - Wind direction/Speed
  - Visibility
  - Ceiling
  - Temperature/ Dew point
  - Altimeter setting

# Validity-Missing Items

- Dew point can be missing if it is not needed for MEL/Performance requirements.
- The NWS Real-Time Mesoscale Analysis (RTMA) product may be used for missing temperature and if previously approved by the FAA, used for other missing variables.



# Validity-Considered Current

- One of the following two conditions must be met:
  - An approved AWOS/ASOS system must be fully operational during Terminal Area Flight Operations;
  - A Certified Weather Observer must be on duty at the station and must provide weather watch that is available to both Pilot and Dispatcher 30 mins prior to arrival or departure and must not be discontinued until the arrival or departure is completed.
  - NOTE: A Certified Weather Observer at destination overrides AWOS/ASOS

# Validity-Approved Source

- US National Weather Service
- Company Meteorology Department
- A weather facility approved by the NWS/FAA
- Any other nation's weather service.

# Summary

- Surface Observations help pilots with specific meteorological information to compute aircraft performance for takeoff and landing
- Surface data needs to be precise, accurate and current from a reliable approved source

**Together we are making a difference**

**THANK YOU**

**Steve.Jangelis@alpa.org**

