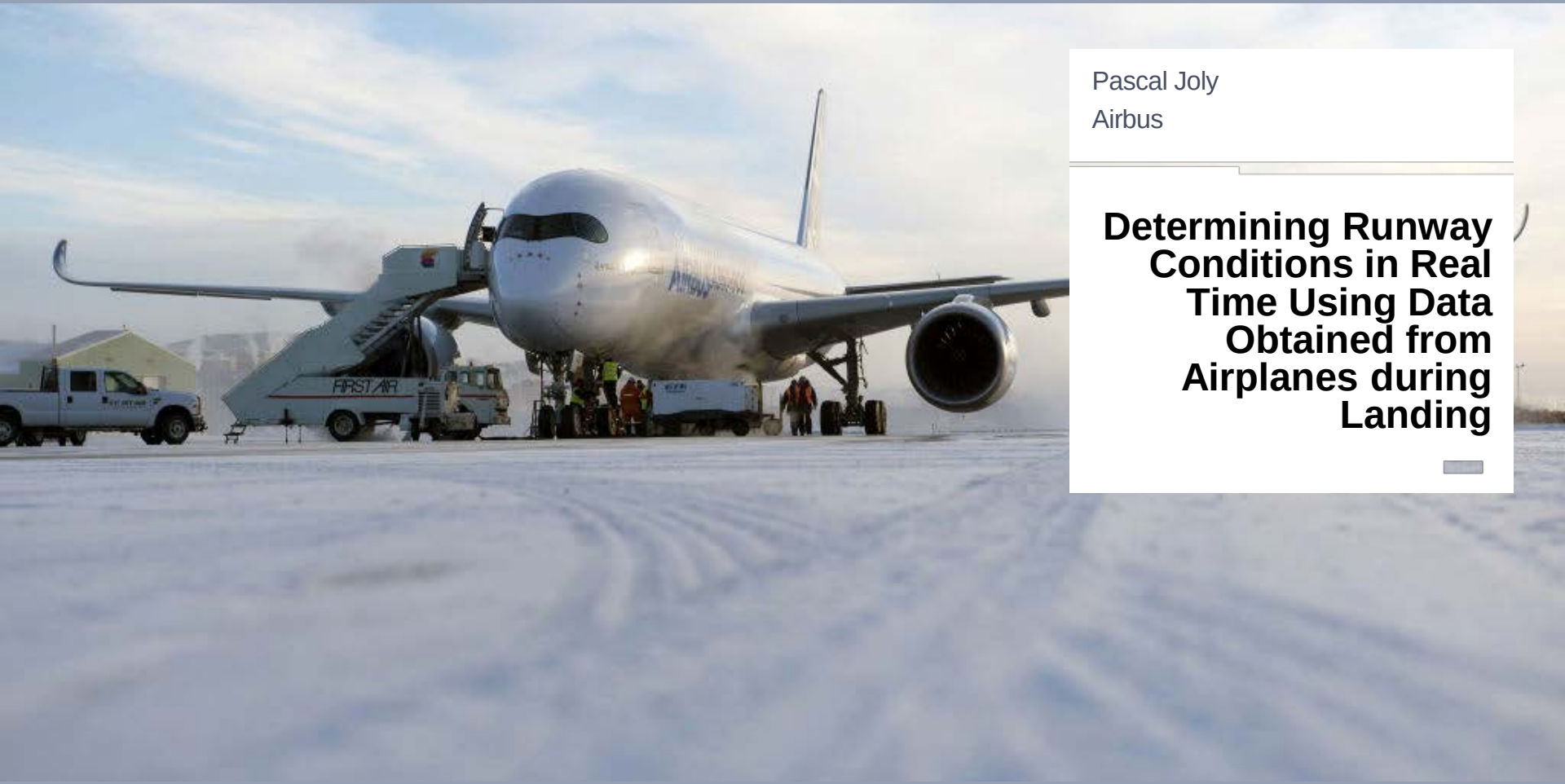


Pascal Joly
Airbus

Determining Runway Conditions in Real Time Using Data Obtained from Airplanes during Landing

Agenda

1. Contaminated Runways
2. CORSAIR
3. Cooperation with the FAA

Current Situation -- Contaminated Runways Operations

- **Conventional assessment methods**
  - Can be subjective
  - Can be challenged by pilot reports
  - Inconsistency across measurement means

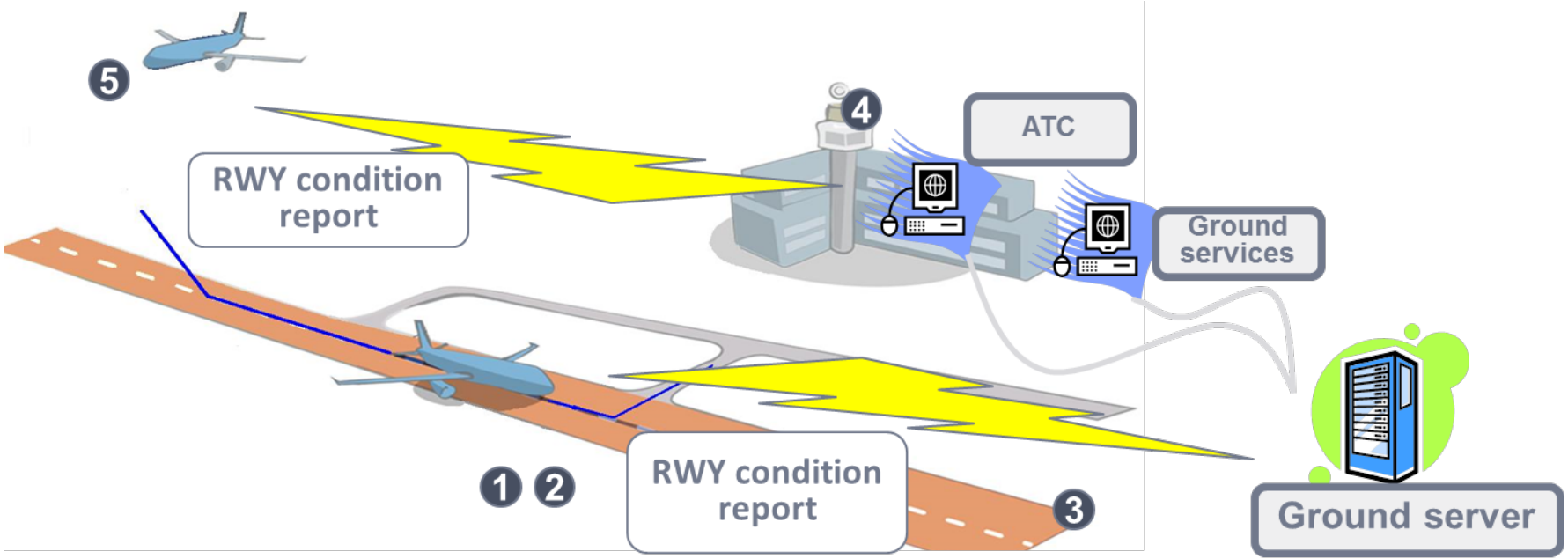
- **Runway condition is used at landing**
  - By crews for landing distance computation
  - By airport operators for runway management

- **Need for a means to evaluate how slippery the runway is, that is:**
  - Objective
  - Timely
  - Non-intrusive
  - and consistent with aircraft performance

CORSAIR Concept

Airbus Concept is to use the Aircraft as a Sensor

COntaminated Runway State Automatic Identification and Reporting



How does CORSAIR work?

- **CORSAIR analyzes the landing performance and then chooses a corresponding TALPA runway state which is consistent with the aircraft performance**

CORSAIR ANALYSIS → TALPA LEVEL →

6-DRY
5-GOOD
4-GOOD TO MEDIUM
3-MEDIUM
2-MEDIUM TO POOR
1-POOR

CORSAIR algorithm is based on proven process

Use same models as the one established during aircraft certification
Only difference is the industrialization of the process in order to analyze mass data in near real-time
Same process as the In-Flight Landing distance, but in reverse!

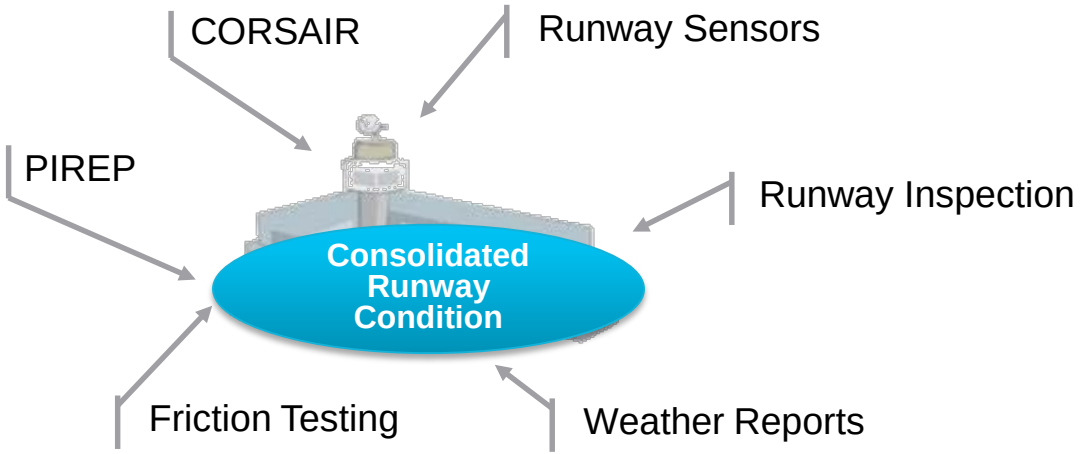
CORSAIR has already been significantly tested

Over the last three winters, partnership developed with 6 airlines
Over 200,000 flights analyzed

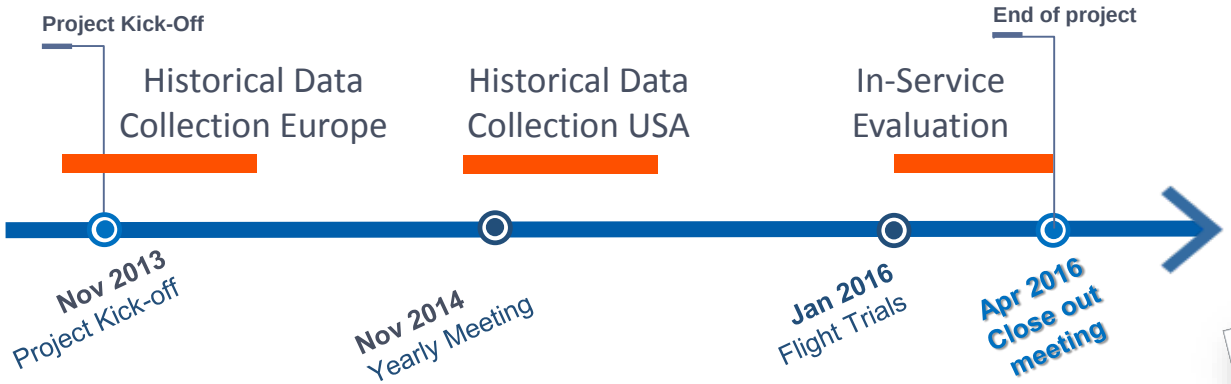
AIRBUS

CORSAIR is an Addition to Current Reporting Means

CORSAIR is not designed as a replacement for existing measurement means, it is designed to complement them.



Roadmap for FAA project



Project's Objectives

- Concept & method validity
- Investigate potential deployment path

Way Ahead for more Safety at Landing

- **Equipped aircraft will provide up-to-date information on the slipperiness of the runway at each landing**
- **Airports will be able to follow the trend of the runway and determine more efficiently when cleaning is needed**
- **Airlines informed of current weather conditions can plan operations accordingly**
- **Pilot is able to calculate an in-flight landing distance using more accurate information on the runway conditions**

Thank You

Questions?