

Next GEN



FAA

RightSizing Briefing to The Friends and Partners in Aviation Weather



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RightSizing the Sensor Network Project Lead

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Fully Improved Weather Sensor Network

OI - 103122

The sensor network will be improved and right-sized to ensure formation sufficiency, reliability, and availability while reducing life-cycle costs.



Current Legacy Systems

LLWAS first fielded '81
89 systems

d '86

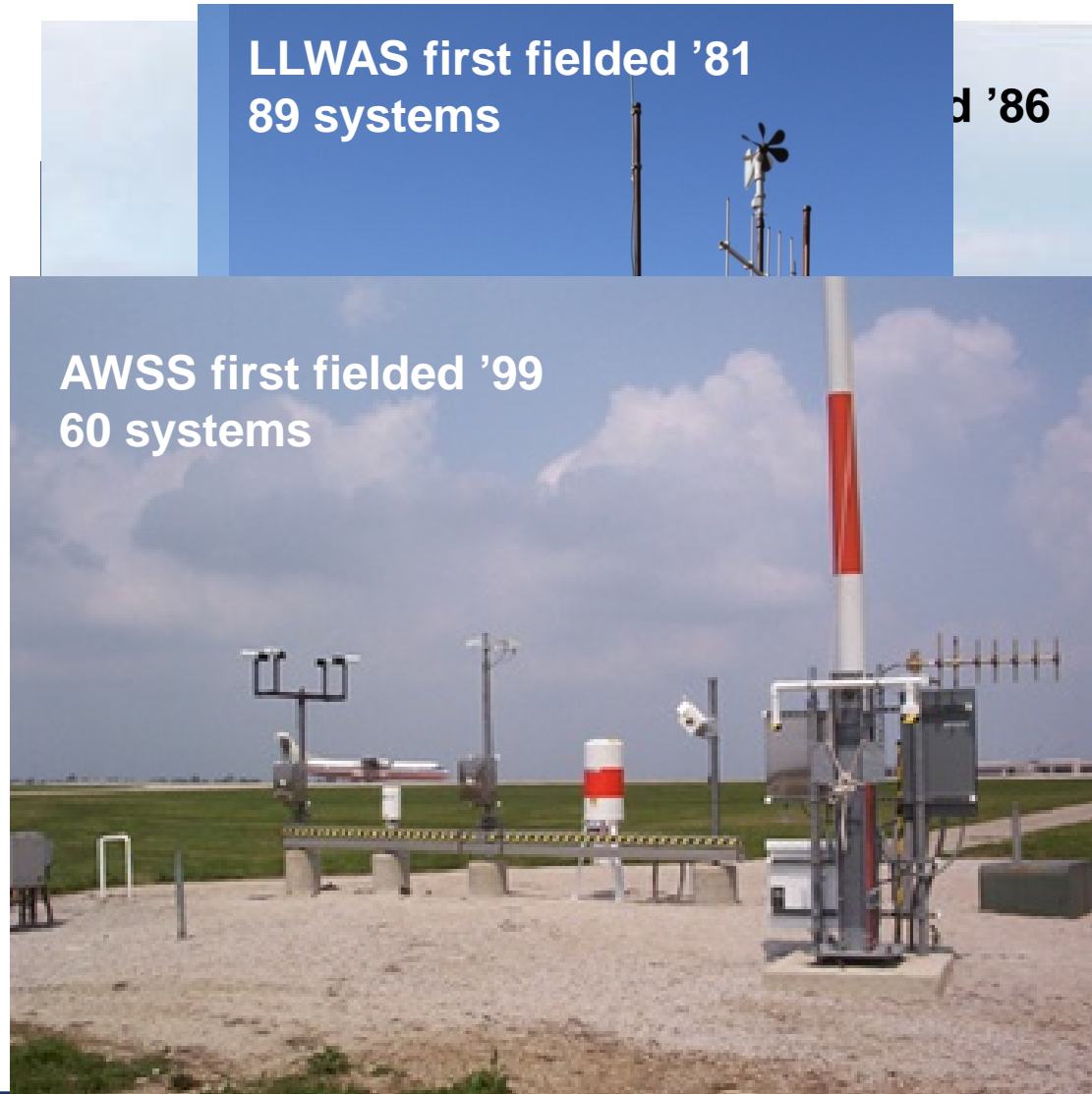
FAA currently owns multiple weather sensor systems

Most are past their design life

Costs to maintain are increasing

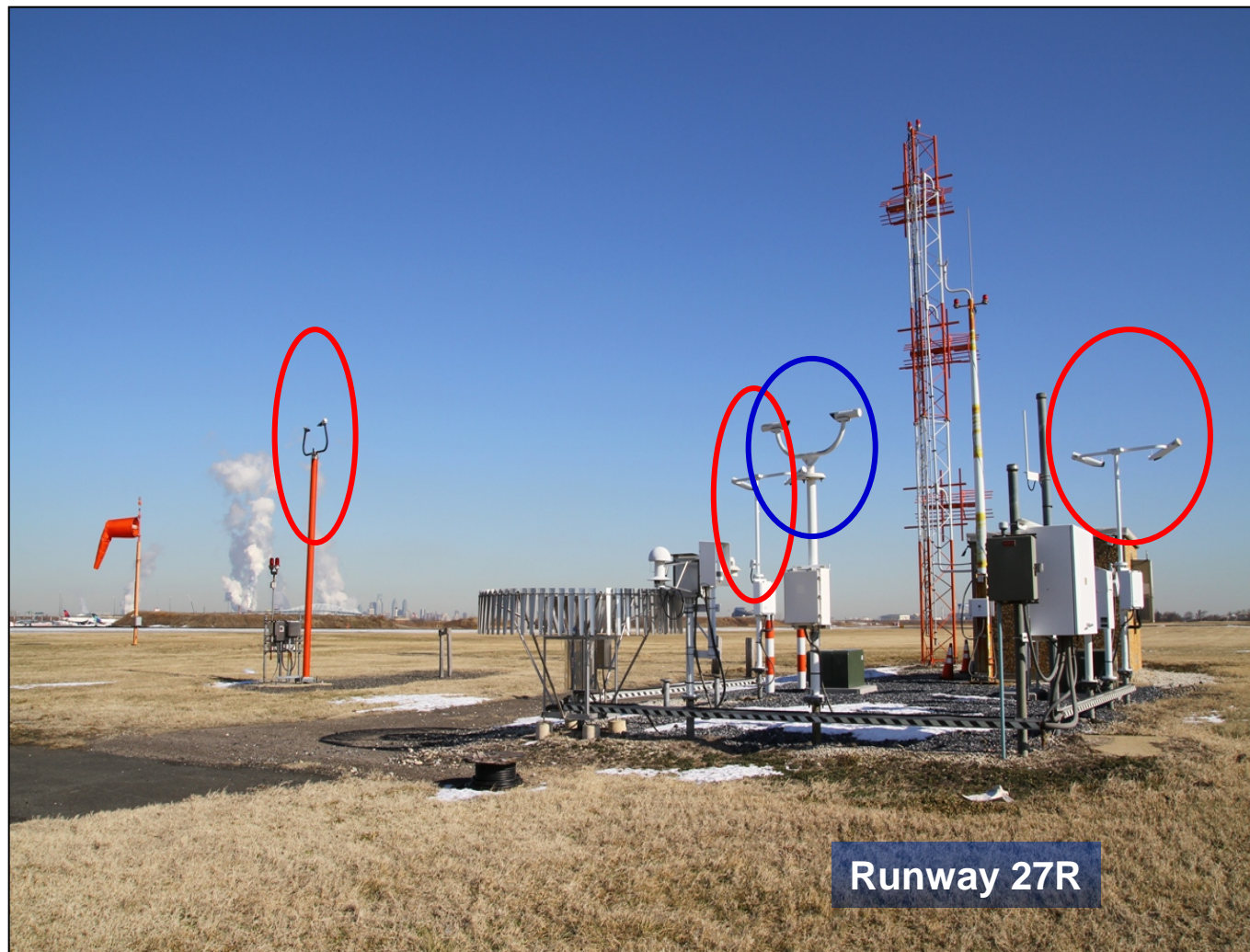
Closed designs limits future enhancements

AWSS first fielded '99
60 systems

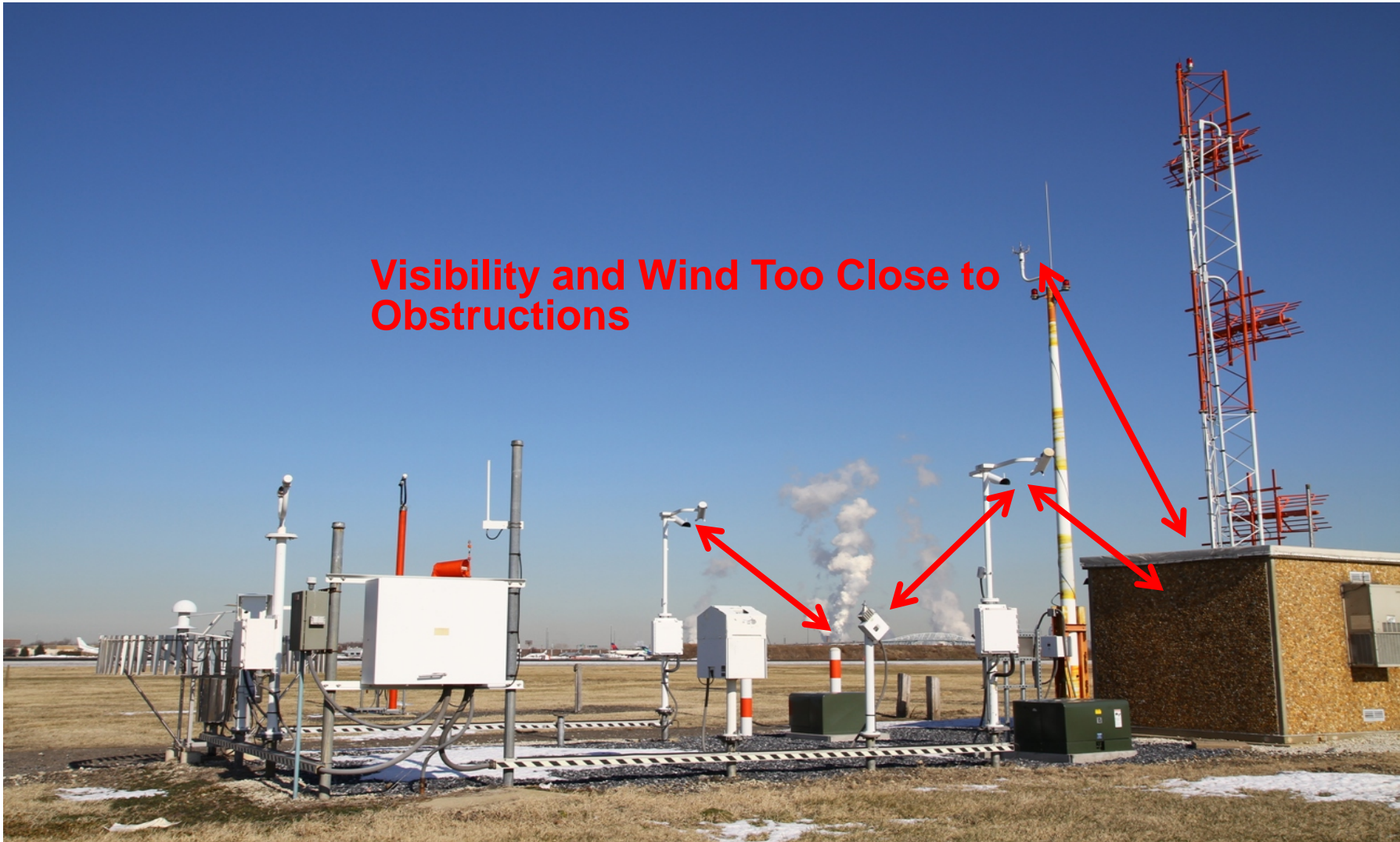


Challenges with Current Capabilities

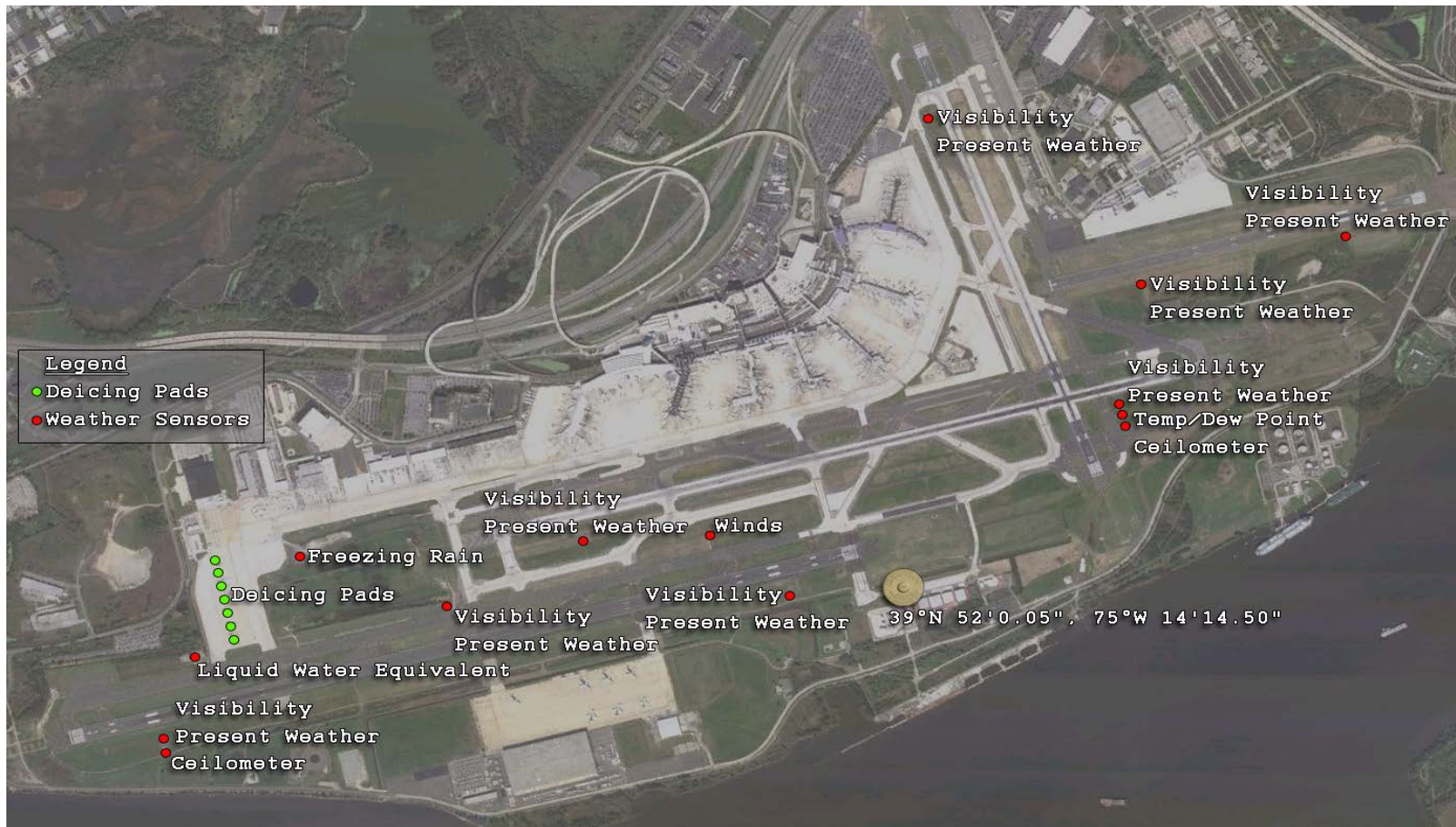
- Overlapping sensing elements
- Closed systems do not effectively share data
- Proprietary processors and software difficult to maintain and harder to change
- Systems rely on hardwire and RF links which are costly and difficult to sustain
- Sensors no longer state of the art
- Becoming more difficult to maintain aging hardware exposed to the elements



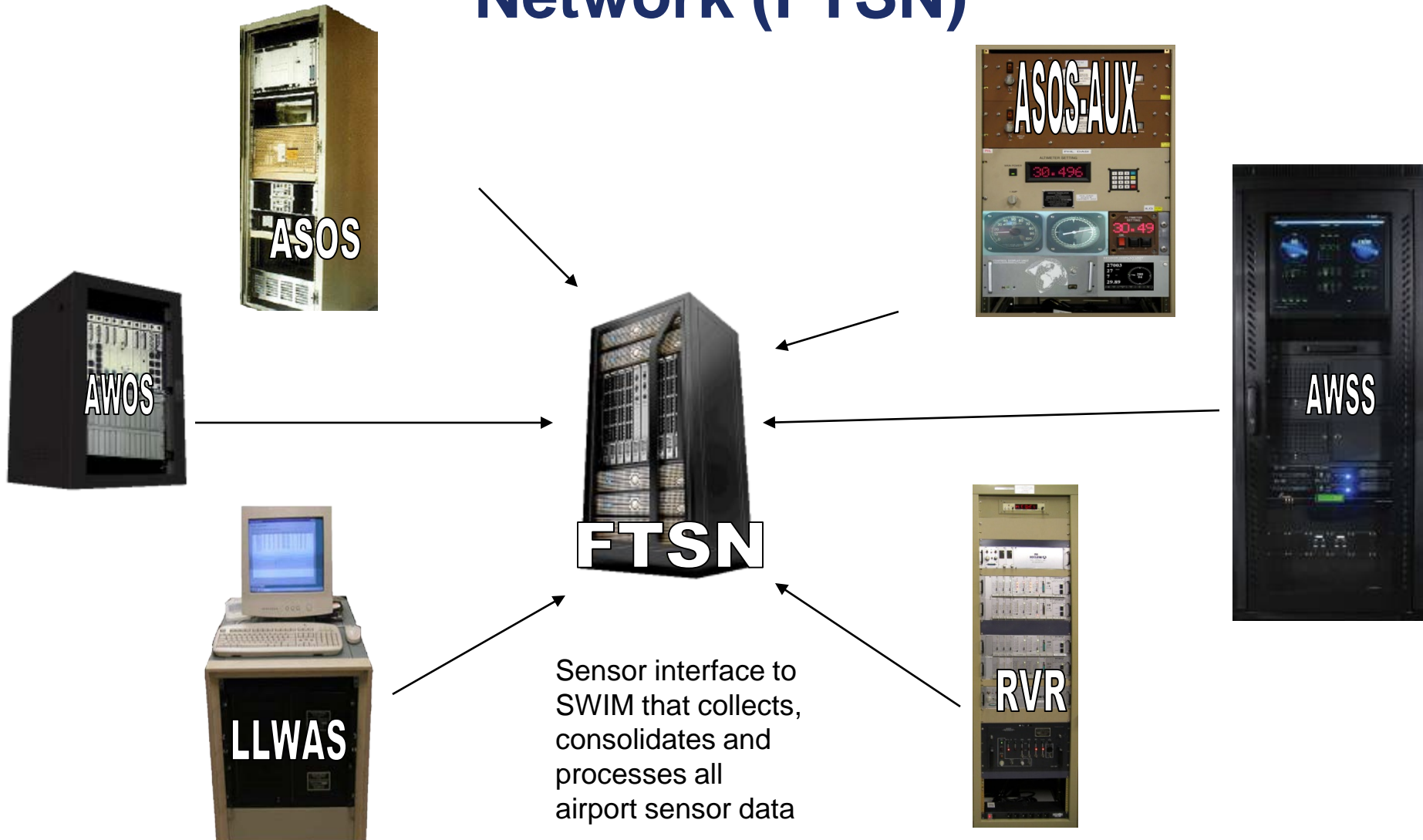
Issues with Current Prevailing Visibility Report



FTSN Concept - Flexible, Multi-Function Sensor Siting

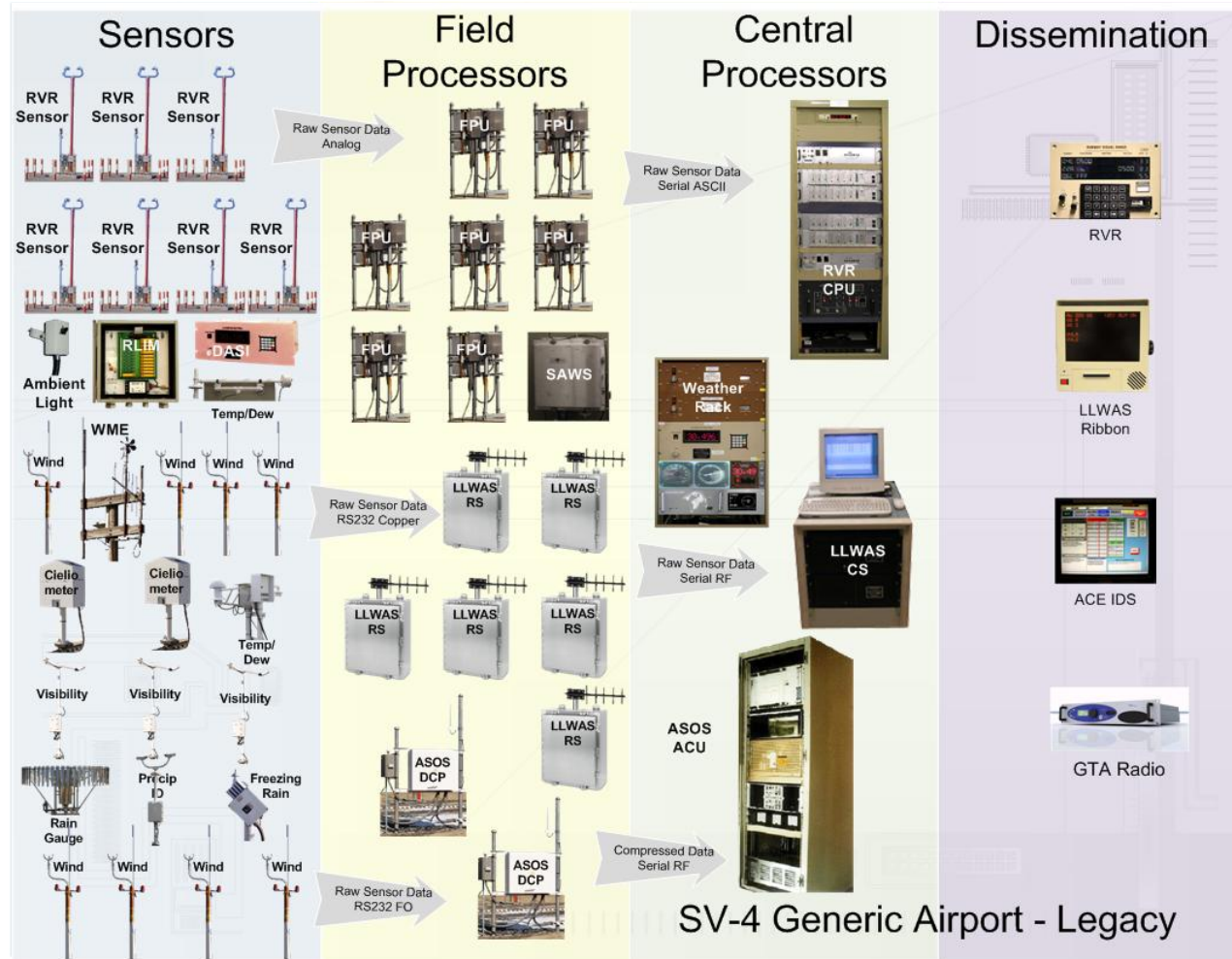


Concept - Flexible Terminal Sensor Network (FTSN)



Enterprise Architecture - Typical Large Airport

- Eliminate Hundreds of Central Processing Equipment Cabinets
- Eliminate Thousands of Field Processor Equipment Cabinets
- Eliminate Thousands of Sensors
- Increase Sensor Coverage and Number of Measurements
- More Data Available to More Users
- Save \$170 Million Plus on Equipment Alone



Project Activities – FTSN Concept Demonstration

- **At the WJHTC**
- **July 31, Aug 1, and 2**
- **Collector Equipment and Functional Demonstration**
 - Canned sensor data
 - To mimic terminal coverage
 - Live sensors
 - In laboratory environment
 - Demonstrates communication with Collector
 - Wireless
 - Emulation software
 - To trigger “events”



Project Activities – FTSN Three Season Demo

- Demonstrate wireless network concept
- Face outdoor challenges/weather

