

Modern Fleet Readiness

Michael Weigand

Co-Founder & Chief Growth Officer,
Shift5



The Challenge: Gaining observability into onboard systems

Commercial aircraft are flying data centers.

- Serial systems were not designed with visibility in mind
- Traffic traveling across onboard OT networks is ephemeral
- Data is obscured by the complexity of systems
- Retrofitting is complicated and impractical
- Disparate component vendors and architectures limit data observability.

Resiliency of Operations

Cybersecurity risks and gaps are growing.

- Aircraft are increasingly networked and software-dependent, making them vulnerable to cyber threats.
- The cyber risks to unprotected serial bus networks and operational technology (OT) components continue to expand.
- The 2018 FAA Reauthorization Act includes cybersecurity provisions for airports, cabin communications, entertainment, and IT systems but doesn't specify OT systems.
- The 2022 TSA cybersecurity requirements specified airports and air carriers but not aircraft or onboard OT systems.

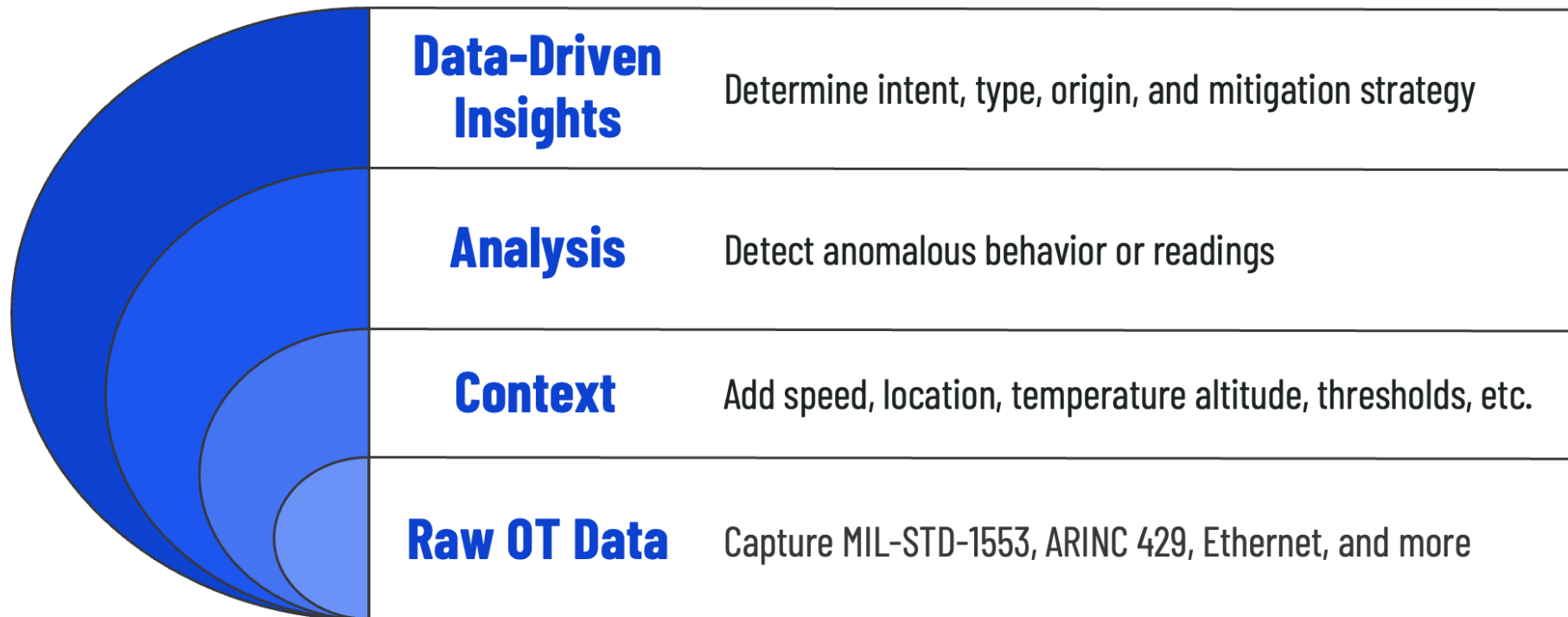


An aerial photograph of four military transport aircraft, likely C-17 Globemaster III, lined up on a runway. The aircraft are white with dark wings and tails, and are positioned in a row, facing right. The runway has white markings, and the surrounding area is dark asphalt.

Increasing Operational Readiness and securing aircraft starts with a foundational element: data.

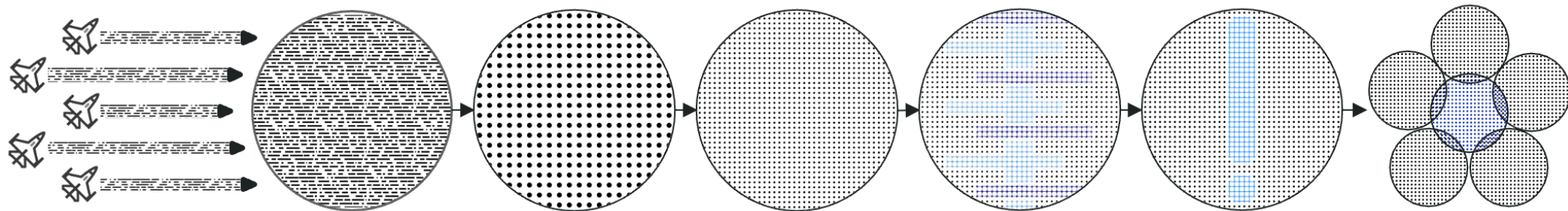
But why do we know more about the IT data on laptops than we do about the OT data on modern aircraft?

Modern Observability: What is it and why does it matter?



Observability relies on OT data

Enabling predictive maintenance, compliance, and platform security



Capture

Retain all of the data crossing the serial bus. Every bus, every protocol, all the time.

Collect

Gather raw serial data captured from every asset across your entire fleet.

Translate

Transform data from raw to human-readable volumes in real-time.

Compress

Enable up to 100:1 data compression designed around your mission type, not our platform.

Analyze

Detect patterns and anomalies in data and in the behavior of onboard components.

Alert

Receive real-time alerts for events both onboard and at remote locations.

Democratize

Maximize onboard data by integrating it seamlessly into your systems of authority.

Thank you.

Q&A

Michael Weigand
Co-Founder, CGO
Shift5 Inc.
301-351-9476
mike@shift5.io