

An AI inspector aircraft technicians call on FaceTime.

It sees the part, cites the FAA manual, checks history and directives, and drafts the work order. The certificated mechanic signs.

TEAM MEMBER

Paras Adlakha

[Cornell University]

Aerospace, electronics, systems engineering

Agent, vision and data pipeline

<https://www.linkedin.com/in/parasadlakha/?isSelfProfile=true>

TEAM MEMBER

Harshita Adlakha

[Blue Marble Space]

System dynamics, socio-technical systems

Research, human factors and product

<https://www.linkedin.com/in/harshita-adlakha-48981235b/?isSelfProfile=true>

LineCheck / What we are solving

PROBLEM

43,000 to 47,000

aircraft technician shortfall projected by 2027 (Oliver Wyman). Less experience on every shift.

96% of 619 maintenance safety occurrences involved technician actions; memory lapses tracked fatigue.

Hobbs & Williamson, Human Factors, 2003

SOLUTION: ONE CALL, SEVEN STEPS

FaceTime

Photo

Inspect

Manual

History

Ads

Sign

MODALITIES voice · camera · PDF manual · web search · structured record

The screenshot displays the LineCheck application interface. At the top, it shows flight details: WO-20261023-A40V, N734AD, Cessna 172S, LH wing lower skin, 57. Below this is a navigation bar with steps: 01 Call, 02 Aircraft, 03 Photo, 04 Inspect, 05 Manual, 06 History, 07 Directives, 08 Draft, and 09 Sign-off. The 'Draft' step is currently active. The main content area is divided into two columns. The left column, titled 'EVIDENCE', shows a photo of a rusted metal surface with rivets. Below the photo, there is a text description: 'Widespread surface corrosion, coating loss, and staining along the rivet row; recommend detailed corrosion assessment and thickness measurements.' The right column, titled 'DRAFT RECORD', contains a 'DISCREPANCY' section with a description of corrosion and staining, and a 'PROPOSED CORRECTIVE ACTION' section with instructions to remove finish locally and inspect pit depth. Below these are 'PROCEDURE REFERENCES' listing various AC (Airframe) and SR (Service) documents. At the bottom, there are sections for 'FINDINGS' (listing 'sealant/caulk breakdown or contamination') and 'AIRWORTHINESS DIRECTIVES' (listing 'Airworthiness Directives; Cessna Aircraft Company').

DEMO: <https://drive.google.com/file/d/1wq2pN7yee1tdY1iSsQFbBKWGquCclYFc/view?usp=sharing>

REPO <https://github.com/HarshitaAdlakha/linecheck.git>

LIVE FaceTime +1 628 278 8831 during the demo slot

Linkedin post: <https://www.linkedin.com/feed/update/urn:li:activity:7519509933067747328/>

Demo replay: [LineCheck Demo Replay](#)

LineCheck / Why our team

Aerospace

We speak the domain: ADs, SDRs, return to service, AC 43.13-1B.

Electronics

Wiring, connector and avionics faults are a large share of write-ups.

Systems engineering

A hard boundary: LineCheck assists and documents; the human decides and signs.

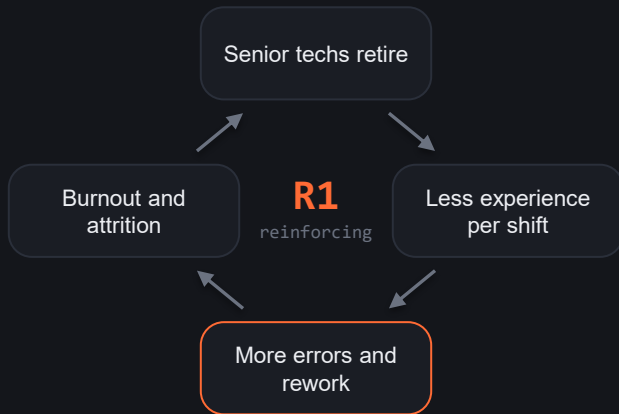
Socio-technical

Errors come from fatigue and time pressure, so it is hands-free on the phone techs carry.

UNFAIR ADVANTAGE

Grounded in peer-reviewed human-factors evidence and real FAA data, and already working end to end on a live FaceTime line.

SYSTEM DYNAMICS: THE EXPERIENCE DRAIN



LineCheck cuts the link from less experience to more errors.