THE CORROSION PROBLEM

Military aircraft operate in unique environments with coatings that are designed to resist traditional optical inspection methods.

Corrosion cost DoD aviation $10.2 Billion in 2016.

The DoD Office of Corrosion Policy and Oversights states: **25% of every maintenance dollar is spent on corrosion maintenance.**

In 2018 GAO reported that corrosion was a major and preventable cause of weapon system downtime.

For line maintainers, **up to 50% of corrosion personnel hours** can be attributed to **visual inspection (flashlight/magnifying glass).**

GRIT SOLUTION

Grey Gecko Real-Time Inspection Tool (GRIT) is a production ready transformative NDI tool that will *reduce aircraft downtime caused by corrosion by 25% and simultaneously reduce the inspection manpower requirement by more that 50%.*

GRIT Imager is a rugged handheld battery operated camera that can **detect corrosion through legacy coatings to a thickness of 15 mil.**

GRIT System is used plane-side by traditional maintenance personnel and compliments phased non-destructive inspection intervals.

No positive/negative pressure hangar required. **No chemicals. No EPA coatings disposal.**

Directly integrates into existing DoD virtualization tools (Teams, Zoom, Adobe Connect, WebEx).

When deployed with the GRIT database, maintainers can identify future corrosion trouble spots through trend analysis.

Captured meta-data can be natively consumed into all current and future aircraft maintenance databases.

Produces clear easily understandable pictures of damaged areas that can be immediately shared with leadership, maintainers, investigators, and aircraft manufactures.

HOW IT WORKS

GRIT uses mid-wave infrared light to visually penetrate the aircraft coatings and record images of the surface below.

Every GRIT image is accompanied by user-input meta-data that includes all aircraft demographics and inspection location making follow-up inspections seamless.

All users can easily be certified in its use in a half-day and identifying corrosion.

Technicians will require only software familiarization to start identifying hidden corrosion.

WHY GRIT?

Out of the box 50% corrosion detection labor savings.

More than 50% labor savings when used during traditional NDI's.

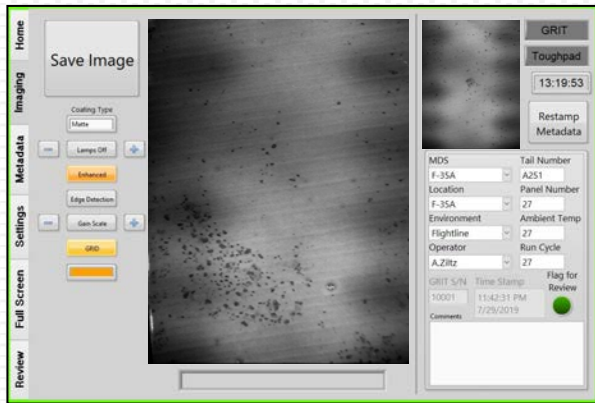Recordable, reportable, trackable inspections completed plane-side.

Customer requirements driven hardware and software development.

On-site training and certification.

WHAT IT DETECTS

- o Uniform attack (or general corrosion)
- o Crevice corrosion
- o Pitting
- o Stress-corrosion cracking
- o Galvanic corrosion
- o Intergranular corrosion
- o Selective leaching (dealloying)
- o Erosion corrosion

Contact information:

Ron Stearns
Sales/Marketing
ron@grey-gecko.com
(707) 484-5149

Grey Gecko
Research & Development