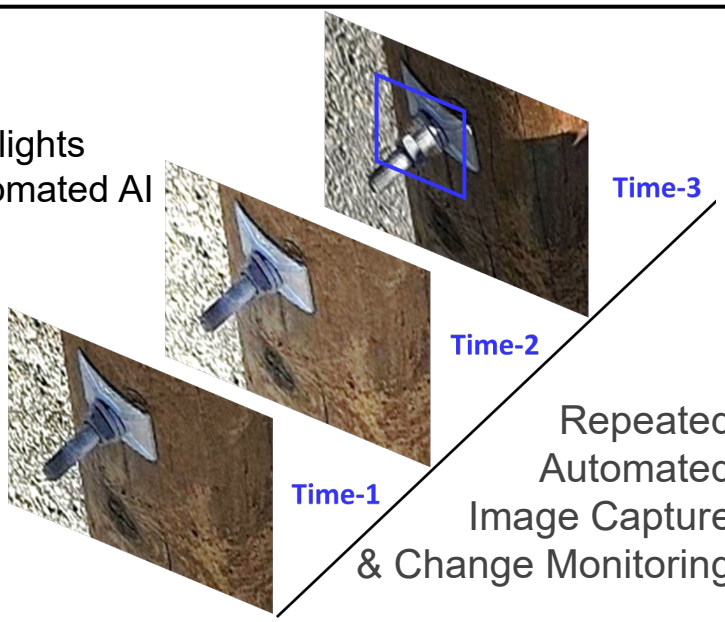
CHANGEAERIAL

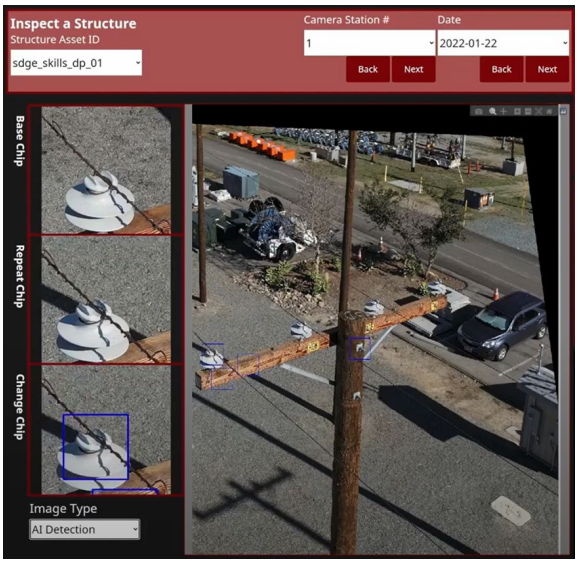
Tools for Automated Drone Inspections

N-SPECT

Input data from efficient, automated flights
Repeat-view images stacked for automated AI algorithm analysis

- High accuracy results
- Detailed changes detected
- Optimized inspection
- RSI © pinpoint monitoring
- Automated GIS-based reporting
- Consistent data over time supports automated Predictive & Prescriptive analytics





Database organization of all images
Efficient and reduced manual review
Automated wear/defect/damage detection
Increased inspection capacity/productivity
Reduced FTE/assignment benefits
Increased frequency of collection
Increased data collected over time feeds predictive and prescriptive analytics
Patent-pending AI algorithm outperforms established, data intense algorithms
Inherent cost & quality value chain benefits

COST & QUALITY VALUE BENEFITS

New levels of precision, efficiency & timeliness
98% + detection accuracy in real time[1]
50% + improvement in pixel alignment accuracy[2] and curation for model ingestion
50-70% cost savings - in data processing & visual anomaly detection
70% time savings - in man hours for data processing & analysis

esri Partner Network Startup

SOUTHERN CALIFORNIA ENERGY INNOVATION NETWORK

Imperial | Riverside | San Bernardino | San Diego

www.changeaerial.com

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N-SPECT - Cost and Quality Value Streams

Optimally curating images for model ingestion (or manual comparison) incorporates matching view precisely and high-accuracy image alignment, where the quality of each step matters to the end goal of fast accurate autonomous detection. ChangeAerial's patented RSI technology delivers industry leading detection accuracy and efficiency across all forms of damage, and changes of interest without the need for extensive algorithm training of large data sets collected over extensive time. More effective autonomous change detection drives new cost and quality value streams to support scalable programs that elevate organization performance.

Precision - dependent on use case and characteristics.

- **> 98% RSI model detection accuracy for real time detection**[1] - Fast accuracy
  - View and automatically detect changes in position, shifts/movement, volume measurements, sizes, with mm clarity and registration accuracy across tight tolerances objects & features delivering calibrated defined breach alerts
  - Objects including facades such as walls, bridge undersides, electrical and telecom towers, dams, and smokestacks, any construction tolerances, details such as rebar volume changes, progression vs scheduled and documentation for liability mitigation
- **> 50%+ improvement in pixel alignment accuracy**[2] using RSI © - Image quality ingestion supports market leading detection accuracy and speed
- **30%+ improvement in 3-D clarity, detail and precision**[3] RTK navigation with RSI © collection and curation improves existing photogrammetry workflows.

Efficiency - dependent on use case and characteristics

- **50-70% cost savings** on data processing and visual anomaly detection
- **70% time savings** in person hours for data processing & analysis Fast autonomous accurate detection with less resources. Standardized repeat images are more effective predictive and prescriptive analysis automation.

Into the future with *N*-PREEMPT

- Incorporate decentralized, shared (governed) image libraries by use cases to accelerate automated predictive analytics & associated pre-maintenance benefits