

ACCURATE A-SCAN DATA

Elios 3 UT Payload



Safe remote thickness measurements

Beyond safe-access A-scans

Eliminate human risks associated with work-at-height and confined space entry by using the Elios 3 UT to conduct inspections safely from a distance.

All the payloads you need - in one

With a visual inspection payload, an embedded LiDAR sensor, and a cutting edge UT probe, the Elios 3 is an all-in-one solution covering most inspection needs.

Uplifted efficiency

Save up to 90% of costs by eliminating unnecessary scaffolding or risky rope access. Inspect with teams of just 2 people and capture UT measurements up to 10x faster.

Elios 3 UT Payload

Technical specifications



UT PAYLOAD

Probe type	Dual element transducer (piezo-composite crystals)
Probe manufacturer	Cygnus Instruments
Measurement Range in Steel	0.8mm to 250mm ¹
Measuring Mode	Mode 2 (Single Echo) and Mode 3 (Echo-to-Echo)
Gain and Gate Control	Automatic or Manual Gain and Gate Control
Accuracy	±0.1 mm (±0.004") or 0.1% of thickness measurement whichever is the greatest
Resolution	Display 0.1 mm (0.005") or 0.01 mm (0.0005")
Calibration Mechanisms	Automatic V-path correction for twin crystal probes. Option of One or Two point calibration for twin crystal probes.
Gel acceptable viscosity	1:1 mix of standard UT gel with water for optimal performance
Display	Dedicated UT tab in Cockpit with A-scan display
Certifications	RoHs, CE, FCC, FDA, IC (only for final MP)

1. Depending on probe and configuration, material, temperature.

AIRCRAFT WITH UT PAYLOAD MOUNTED¹

Modification from nominal specifications

Flight time while hovering²	7min40 E3 + LiDAR Rev7 + UT with probe
Flight time in normal UT use (4 POM / Minute)³	7min E3 + LiDAR Rev7 + UT with probe
Operating Temperature Range³	0°C - 45°C

- All tests run at Sea Level, 20°C, 0% humidity, no wind, in ASSIST, Lighting by default (20W), new battery full capacity 98.8Wh, 100% to 0% on tablet (a margin of 10% is kept by the system)
- Hovering, No Collisions
- One measurement every 10 seconds, measurement duration > 5s

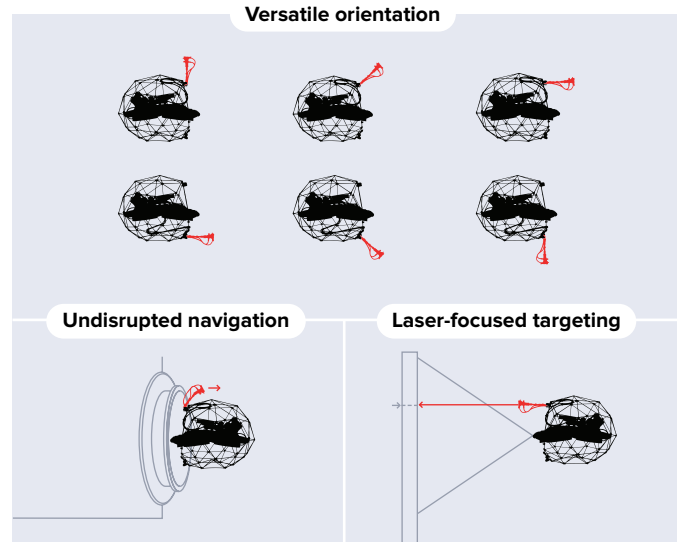
IN FLIGHT

Live A-scans

Refine spot measurements in real time




SMART PROBE ARM



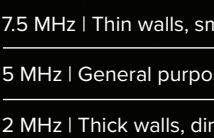
MODULAR PROBE HEAD

Interchangeable probes

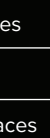
Cover for the widest range of measurement scenarios



7.5 MHz | Thin walls, small pipes




5 MHz | General purpose



2 MHz | Thick walls, dirty surfaces


Interchangeable probe hood

Match the shape of various surfaces



Cleaning module

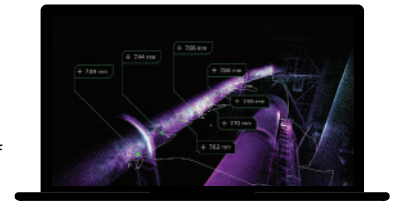
Remove light dust coating and prepare surfaces for measurement.



IN POST-PROCESSING

Location tagged measurements

Enable precise localization of measurements in real-time



UT PACKAGE

<p>Drone and core module</p> <p>The UT payload is available either as a package with the Elios 3 drone or as a standalone payload option for existing Elios 3 users.</p>	<p>Asset Management Extension</p> <p>This software eases the Elios 3's processing and reporting workflows by merging data from subsequent flights into a single view of an asset.</p>	<p>Probe and cleaning module</p> <p>The Elios 3 UT Payload comes with an optional set of probes and a cleaning module to ensure accurate readings even in challenging conditions.</p>	<p>Online or in-person training options</p> <p>From the best flight practices to processing and refining A-scans, our training programs offer comprehensive guidance.</p>
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