

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**

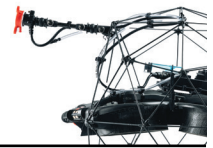
With a visual inspection payload, an embedded LiDAR sensor, and a cutting edge UT probe, the Elios 3 is an all-in-one solution covering most inspection needs.

### **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

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

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

### AIRCRAFT WITH UT PAYLOAD MOUNTED

Modification from nominal specifications

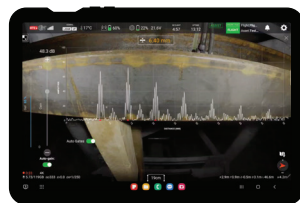
<b>Flight time while hovering</b>	7min40 <sup>1</sup> E3 + LiDAR Rev7 + UT with probe
<b>Flight time in normal UT use (4 POM / Minute)</b>	7min <sup>2</sup> E3 + LiDAR Rev7 + UT with probe

- At Sea Level, 20°C, no wind, hovering in ASSIST, Lighting by default (20W), new battery full capacity 98.8Wh, 100% to 0% on tablet (battery is not damaged if 0% is reached), no collisions.
- At Sea Level, 20°C, no wind, in ASSIST, Lighting by default (20W), new battery full capacity 98.8Wh, 100% to 0% on tablet (battery is not damaged if 0% is reached)

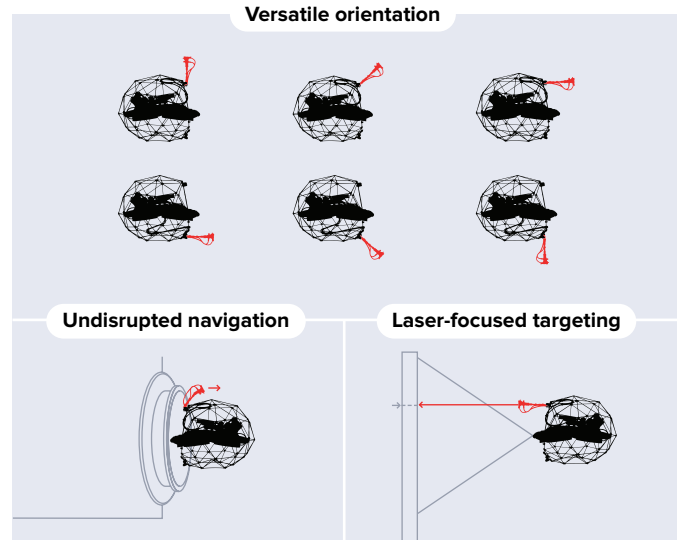
### IN FLIGHT

#### 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

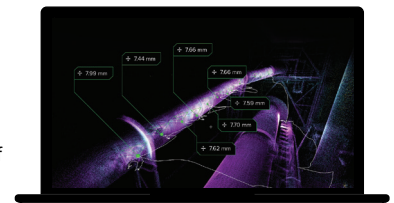
**Interchangeable probe hood**  
Match the shape of various surfaces

**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><b>Drone and core module</b></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><b>Asset Management Extension</b></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><b>Probe and cleaning module</b></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><b>Online or in-person training options</b></p> <p>From the best flight practices to processing and refining A-scans, our training programs offer comprehensive guidance.</p>
---	--	--	--