

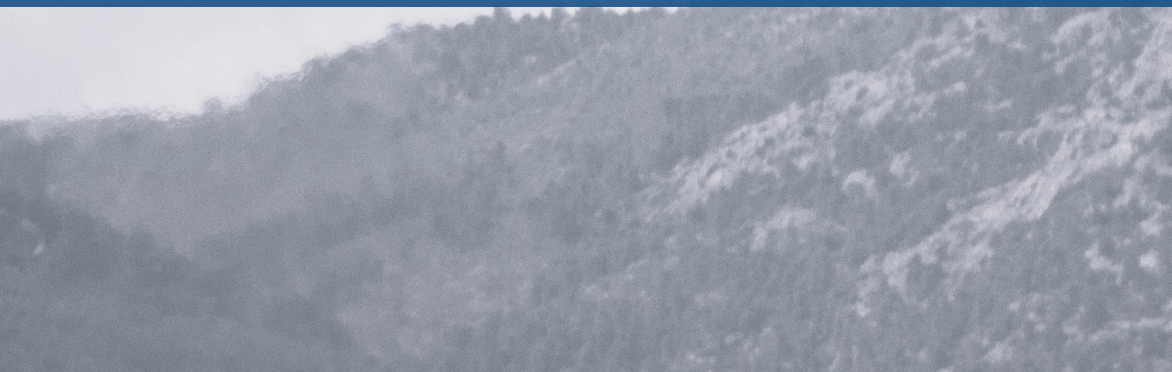


SitAws

Situational Awareness System

PILOT (CREW) ASSISTANCE

Obstacle warning and terrain awareness



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Airborne GmbH



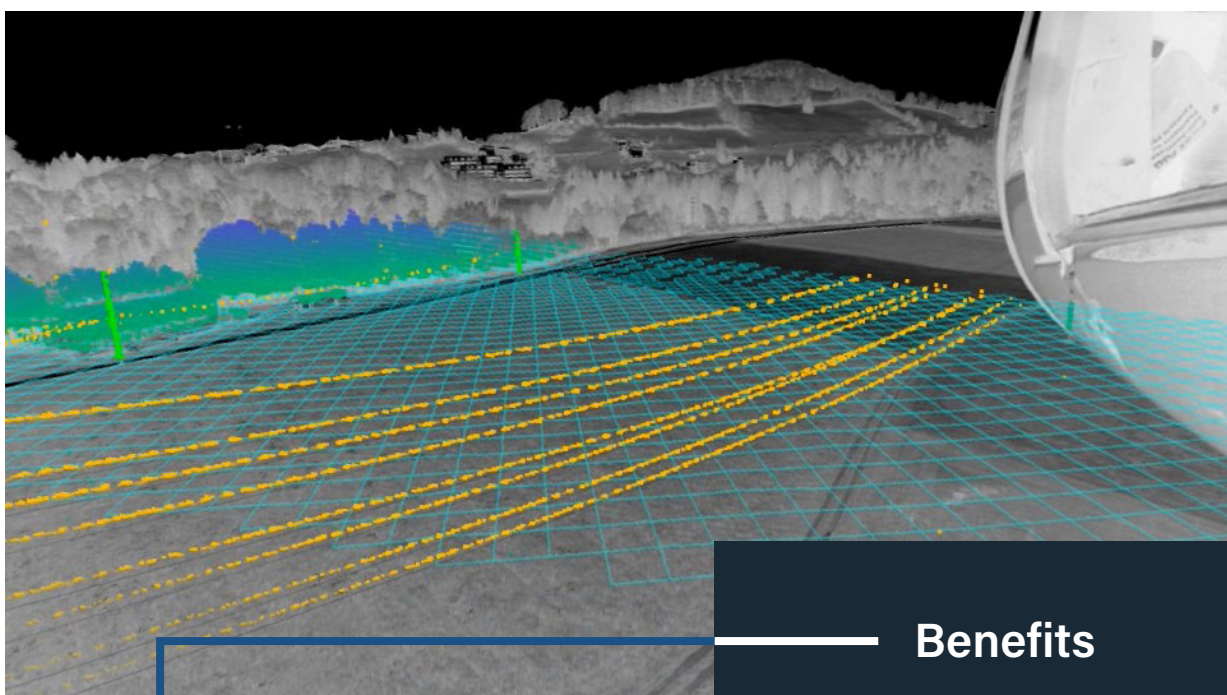
About SitAwS



SitAwS is a 3D sensor system based on LiDAR-light detection and ranging. As a pilot assistance system, SitAwS detects terrain, objects and wires with a high detection probability. SitAwS warns the pilot of critical situations to avoid incidents and accidents.

Challenges

- Object and wire obstacles during take-off and landing
- Wire obstacles during cross-country flight
- Unimproved surface and moving objects in landing zone e.g. drones
- Degraded visibility (e.g., night, rain, fog, brown-out, white-out)

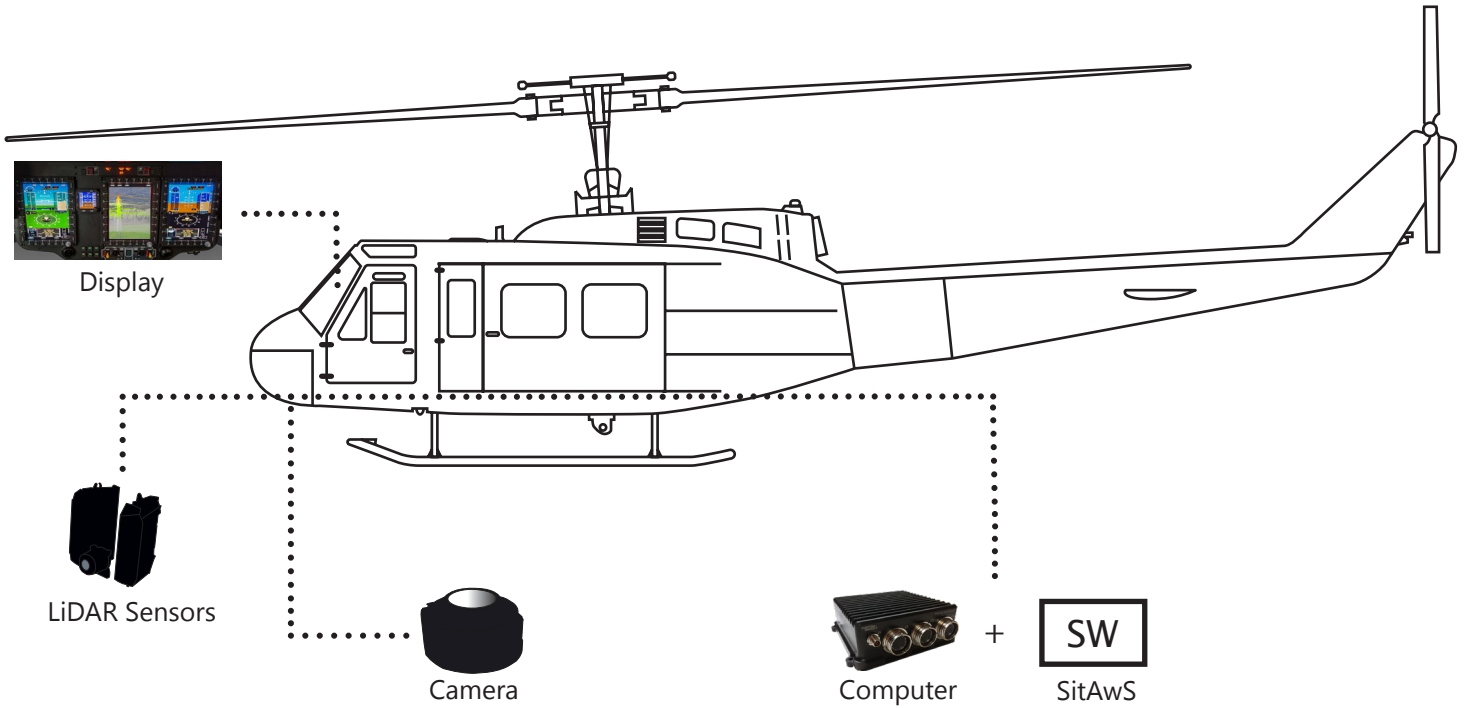


Benefits

Situational awareness increases H/C Safety

- Pilot(Crew) assistance during take-off and landing phases
- Reduction of pilot's workload due to depicting of relevant warnings
- Detection of wires with indication time
- Capable of being integrated on many different H/C types
- Shortening flight time save kerosene and leads to a reduction in CO2 emissions
- Low size and weight solution
- Value for money solution

Sensor-based recognition of H/C environment



- ✓ 3D view of safety zone and audio alerting
- ✓ System concept is scalable to different number of sensors
- ✓ Pilot assistance day and night as well as under bad weather conditions
- ✓ SitAwS application software can be integrated into existing avionics hardware

Product Overview

- Processing and fusion of active laser-based 3D sensor and camera information
- Visualization of relevant objects (obstacles, terrain, moving objects)
- Obstacle detection (e.g., wires) in flight path and landing zone
- Support in degraded visibility
- Unknown surface and slope indicator of the landing site
- Typical warning range: 250m (10% target reflectivity)
- Wire warning range (power lines): 100m- 250m
- Camera: 0,25 kg
- Computer: 3,2 kg
- LiDAR Sensors: 1.8 kg
- Horizontal FoV: 47°
- Vertical FoV: 120°

Contact Us

Scan Me



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