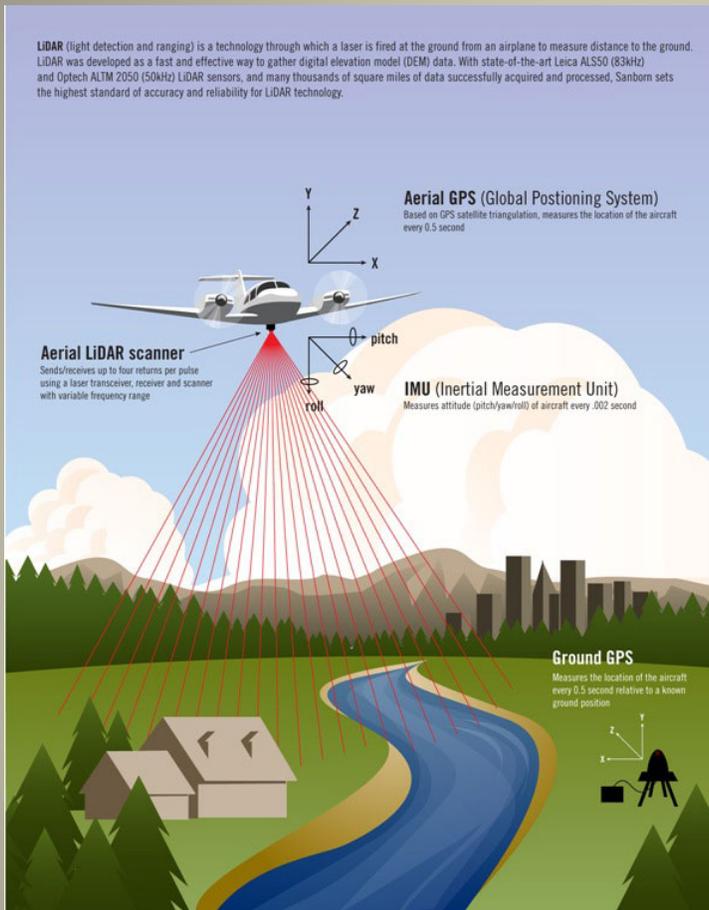


# What is LiDAR?

**Wikipedia Definition:** **LiDAR (Light Detection And Ranging)** is an optical remote sensing technology that measures properties of scattered light to find range and/or other information of a distant target. The prevalent method to determine distance to an object or surface is to use laser pulses. Like the similar radar technology, which uses radio waves, the range to an object is determined by measuring the time delay between transmission of a pulse and detection of the reflected signal.



Laser pulses originate from the sensor mounted on the aircraft. The pulse travels down until it reaches an object and is then reflected back to the system.

The distance is determined by measuring the time delay between the emission of the pulse and the detection of the reflected signal.

The 1<sup>st</sup> return reflects the highest elevations (tree canopy, buildings, power lines, etc.). The last return reflects the ground level.

