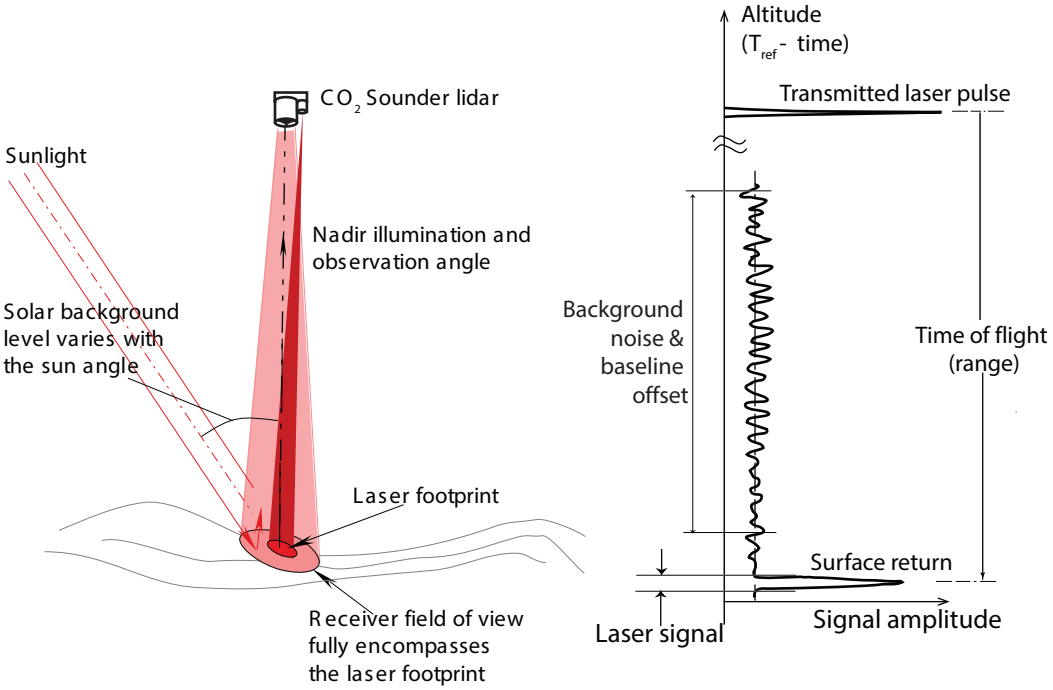
CO_2 Sounder lidar
Sunlight
Nadir illumination and observation angle
Solar background level varies with the sun angle
Laser footprint
Receiver field of view fully encompasses the laser footprint
Altitude (T_{ref} - time)
Transmitted laser pulse
Background noise & baseline offset
Time of flight (range)
Surface return
Laser signal
Signal amplitude