

Free space laser safety system for Aircraft Camera Detection in the Infrared

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Aircraft laser safety for SLR operations is paramount at the Geodetic Observatory Wettzell, both during day and nighttime. One of these security devices is a thermal infrared camera operating at a wavelength of 7.5 to 15 micrometers. Together with another camera for the visible part of the spectrum, the camera surveils the airspace around the laser beam and detects aircrafts, manned balloons and ultra lights in order to inhibit the transmission of the laser beam when the separation of the laser beam and the object in the airspace is too close.

This talk introduces the relevant safety features and provides insight into the safety requirements and the image processing steps, which are carried out in realtime.