

An automated, intelligent, LHRS (AI-LHRS) for supporting the safety of lasers in airspace

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A radar-based laser safety system, for eliminating the potential for laser radiation hazards in airspace, has gone through extensive indoor and outdoor testing. The system operations at ~600Hz and airspace monitoring are built with automated features of hardware and software. The system allows the mapping of the safety system functions and parameters throughout its operation. The coordinates of the radar beam pointing in 3-d space, target range, transmit epoch, receive epoch, and target-intercepted signal return strengths are captured every frame for interrogation and inferencing. Intelligence is built in the analysis and inferencing of various operational and system parameters to ensure situational awareness, the integrity of operations, and the avoidance of potential system problems that may interfere with the radar safety functions. Certain operational details of this system will be discussed.