

Session 5: Safety and Security

Chairs: Jan McGarry, Jean-Marie Torre, Johann Eckl

October 25, 2019

ILRS Workshop Stuttgart, Germany

Introduction: Safety & Security

- We usually think of laser hazards when we discuss SLR safety, including eye safety and aircraft avoidance
- Laser safety remains a critical component of SLR system safety and is the topic of most of this session's talks
- However, there are many aspects to safety for an SLR system – the last talk discusses various hazards to be aware of
- And the poster in this session presents an approach to lightning protection
- Different regulations govern safety, especially laser safety, depending upon the location of the SLR system
- Monitoring is critical to safety, security and performance in an automated SLR system – the last two talks cover this topic
- Security is becoming an important consideration for SLR systems – especially IT Security

Session Presentation Format

- 15 minutes for each presentation
- 5 minutes at the end of each talk for questions
- 20 minutes for full audience discussion at the end

Session 5 Presentations and Posters

Time	Presenter	Title
09:00	Chairs	Introduction
09:10	Jean-Marie Torre	European Laser Safety: Laser Emitters and Flight Safety
09:30	Andreas Leidig	Free space laser safety system for Aircraft Camera Detection in the Infrared
09:50	Matthew Wilkinson	Optically Detecting Aircraft for In-Sky Safety in Daylight Conditions
10:10		Coffee break (30 minutes)
10:40	Toshimichi Otsubo	ADS-B aircraft safety system assembled at less than EUR/USD 100
11:00	Theodor Bachem	Web-based approach for system monitoring and remote SLR control
11:20	Jan McGarry	SGSLR safety & security across global locations
11:40	Chairs / audience	Discussion (20 minutes)

Poster	Title
Howard Donovan	NASA SGSLR Power and Lightning Protection

Discussion Topics

- Aircraft avoidance – radar, cameras, eye-safe laser pre-fire, ADS-B, no fly zone, forward observer with laser kill switch, ...
 - Positives and negatives of techniques?
 - Other methods?
- How many stations have had serious lightning strikes in last 5 years?
 - How prepared was your system?
 - How many stations had serious lightning strikes 5 years or more ago?
- What are stations doing about protecting against IT hacking?
 - Do all stations have requirements from their parent organization?