



OPTICS FINAL WORKSHOP

New Resilient Designs for Aviation

26 -27 April 2017

CIRA, Capua (Caserta) - Italy

TO REGISTER, PLEASE VISIT:

www.cira.it/en/events/optics-final-workshop/Optics%20Final%20Workshop

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Aviation Safety largely learns from the past to predict and control risks in the future. But events such as severe weather, loss of control in flight, and fire on board aircraft can still happen, and when they do there is not much time to react, and in such cases what we most need is Resilience.

Resilience is the ability for a system to rapidly recover from any kind of system disturbance or threat, and return to normal, or at least safe, operation. It includes Adaptability to the unlikely, and to the unforeseen. **Adaptability** is the key to face new emerging hazards, and has to be addressed at early stages of the development life cycle of the aviation systems.

Currently Resilience research includes active and passive protection systems, affordable protection for light aircraft, and enhanced sensors. Although there is much talk of resilience in aviation, and a good deal of research, OPTICS' review of this area has found two key areas in particular that deserve an elevated and renewed research focus. The first area is **new designs and concepts of aircraft to achieve resilience**. Additionally, because even with enhanced resilience events may overcome the aircraft system, there needs to be a stronger focus on enhancing **post-accident survivability**.

This Final OPTICS Workshop will therefore focus on **aviation resilience** (including survivability) through the introduction of **new technologies and improved system designs**. This includes discussion on novel aircraft concepts, improved materials or new aircraft sensors, new software paradigms, improved airworthiness and manufacturing techniques/technologies, and all the other tools, products and services that ensure resilience of systems and operations, able to face current and emerging new hazards.

The results of this workshop will generate a prioritised strategic research agenda for new Resilience research, which will be presented both to ACARE and the European Commission at the Final OPTICS Dissemination Event in June (14-15) in Brussels. This is therefore an opportunity for researchers and industry alike to help shape the future Aviation Resilience research agenda.

Keynote speakers from Rolls Royce, EASA, and CIRA will introduce the safety challenges facing aviation, and their approaches to improving resilience. Four key research projects will present focused solutions for enhancing resilience and improving post-accident survivability.

The participants attending the presentations and the discussions will be actively involved in providing their suggestions to improve the approach to resilience in terms of: new research priorities, identification of gaps and bottlenecks, and ways to overcome them.

Each registrant will be asked to propose two high priority areas of research in these areas in advance of the workshop. This is not obligatory, but will facilitate the workshop discussions.

To attend the workshop, Registration is mandatory. The registration is free of charge, and is now open on the website below.

IMPORTANT:

The deadline for workshop registration: **April 18th at 16:00**. For logistics support (registration, hotel reservation, transport), please contact **infooptics@cira.it**



For additional information on the event
please visit www.optics-project.eu

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AGENDA | Day 1, 26th April

12:30	Arrival at CIRA
12:30	Buffet Lunch
13:30	Welcome, CIRA
13:40	Opening by European Commission Pablo Pérez-Illana, EC-DG-RTD
14:00	OPTICS Project and approach of the Workshop Barry Kirwan, ECTL, Project Coordinator
14:30	EASA Keynote speaker
15:00	Rolls Royce Keynote speaker
15:30	Coffee Break

New designs and concepts of aircraft to achieve resilience - Post-accident survivability

15:50	Working Session 1 New designs and concepts to achieve resilience: Gaps and bottlenecks	Working Session 2 Post accident Survivability: Gaps and bottlenecks
17:10	Wrap-up from subgroups	
17:30	CIRA facilities tour (Icing Wind Tunnel, Plasma Wind Tunnel)	
18:00	End of Day 1	



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AGENDA | Day 2, 27th April

08:30 **CIRA** Keynote Speaker

09:00 Projects Presentations

10:40 Coffee Break

New designs and concepts of aircraft to achieve resilience - Post-accident survivability

11:00 **Working Session 1**
New designs and concepts to achieve resilience:
Gaps and bottlenecks

Working Session 2
Post accident Survivability:
Gaps and bottlenecks

13:00 Buffet Lunch

14:00 Wrap-up from subgroups

14:45 End of Meeting

15:00 Transport to Airport / Hotel

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Logistics

CIRA is located in Capua, a pretty town in Southern Italy about 160 km south of Rome, 50 km north of Naples and 20 km from Caserta. The closest international airport is **Capodichino airport**, in Naples (www.gesac.it), located 45 km south of Capua and 30 km from Caserta. Information on how to reach CIRA is available at www.cira.it/en/contattaci-en/come-raggiungerci

Hotel

Special room rates for workshop's participant at Hotel Royal Caserta (www.royalhotelcaserta.com).

Single room: €80,00 (breakfast included)

Twin room: €90,00 (breakfast included)

Special Travel Arrangements

A special travel arrangement, covering all bus transfers, has been organized for the workshop at the cost of €50,00 to be paid at the Hotel Royal.

Day 1 | 26th April

11:30 Shuttle 1 from **Naples Airport to CIRA**

Meeting point is at bus parking, that is on the right of the arrival exit.

11:30 Shuttle 2 from **Royal Hotel in Caserta to CIRA**

18:30 Shuttle from **CIRA to Royal Hotel in Caserta**

Day 2 | 27th April

07:50 Shuttle from **Royal Hotel in Caserta to CIRA**

15:00 Shuttle 1 from **CIRA to Naples Airport**

15:00 Shuttle 2 from **CIRA to Royal Hotel in Caserta**

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