

ICOLSE 2009 PRELIMINARY PROGRAM

TIME	TUESDAY 15 SEPTEMBER 2009	
6:30 am – 8:30 am	Breakfast - Open Seating Buffet Tuesday Session Chairs - Meet with Presenters (7:30AM)	
8:30 am – 9:45 am	Welcome and Announcements from Mr. Edward Rupke, Conference Chair Location: Berkshire 1 Welcome from the Mayor, City of Pittsfield Details of Spouses program Location: Ballroom	
9:45 am – 10:15 am	Coffee	
Location	Berkshire 1	Berkshire 3
10:15 am – 11:45 am	Session 1 – Lightning Zoning <i>Chair:</i> <u>AAA-3</u> – A Probabilistic Approach for the Zoning <u>AAP-1</u> – Interpretations of Model Attachment Test Results in the Terms of Zones <u>GWA-1</u> – Numerical Model to Determine Lightning Attachment Point Distributions on Wind Turbines According to the Revised IEC 61400-24	Session 2 – Lightning Hazard to Personnel <i>Chair:</i> <u>GME-3</u> – Lightning Fatalities and Fatality Rates by U. S. State <u>GMD-1</u> – Recent Successes in Asia to Mitigate the Lightning Hazard: Reports from Bangladesh, India, Nepal, Sri Lanka, Malaysia, Pakistan and Bhutan <u>GME-1</u> – Lightning Caused Deaths and Injuries in and Near Buildings
11:45 am – 1:15 pm	Lunch (Grand Ballroom)	
1:15 pm – 2:45 pm	Session 3 - Lightning Testing <i>Chair:</i> <u>AAT-3</u> - Statistical Analysis of Voltage Spark Ignition of Lean H ₂ -O ₂ -Ar Mixtures <u>AAT-6</u> – New Lightning Test Facility Design of High Current Generators in Compliance with SAE ARP 5416 <u>AAT-2</u> – Impulse Voltage Breakdown and Surface Discharge Characteristics of Windscreen Plexiglas®	Session 4 – Ground Lightning Protection <i>Chair:</i> <u>GFA-1</u> – A Model for Lightning in Littoral Areas <u>GSD-1</u> – Lightning Protection Materials Used on Radar System <u>GFD-2</u> – A New Decision Matrix for Lightning Protection
2:45 PM - 3:15 PM	Coffee	
3:15 pm – 4:45 pm	Session 5 – Numerical Analysis <i>Chair:</i> <u>AAA-1</u> – The Benefits of Circuit Modeling for Lightning Protection <u>AAA-4</u> – Cluster Computing and Lightning Modeling Using EMA3D <u>AAA-5</u> – Assessment Methodologies for Comparison of Aircraft Transient Levels (ATL) to Equipment Transient Design Levels (ETDL)	Session 6 – Electrostatics <i>Chair:</i> <u>AEP-3</u> – A Critical Review of Precipitation Research since the 1930's and Comparison to Aircraft Charging by Dust <u>AET-1</u> – Electrostatic Charge Retention on Aircraft Paints <u>AEP-3</u> – Airborne Lightning and Precipitation Static Charge Research with a T-28 Aircraft
An Evening at Hancock Shaker Village with Dinner and Entertainment Busses depart from Crowne Plaza hotel at 5:45 PM and return at 9:30 PM		

TIME	WEDNESDAY 16 SEPTEMBER 2009	
6:30 AM – 8:30 AM	Breakfast - Open Seating Buffet Wednesday Session Chairs - Meet with Presenters (7:30AM)	
8:30 AM – 9:30 AM	Invited Presentation: "Lightning Research at the Empire State Building" Location: Berkshire 1	
9:30 AM – 10:00 AM	Coffee Break	
Location	Berkshire 1	Berkshire 3
10:00 AM – 11:30 AM	Session 7 – In-Flight Lightning Detection and Measurements <i>Chair:</i> <u>AAS-1</u> – Session 1 – Results of the In-Flight Damage Assessment System Concept Prototype Tests <u>AAS-2</u> – Session 2 – Results of the In-Flight Damage Assessment System Concept Prototype Tests <u>AAA-3</u> – Session 3 – Results of the In-Flight Damage Assessment Systems Concept Prototype Tests	Session 8 – Lightning Effects on Electric Power Lines <i>Chair:</i> <u>GPA-2</u> – Numerical Modeling of Lightning Induced Voltages on Overhead Lines <u>GPA-1</u> – A Finite Element Method for Determining the Shielding Effects of Trees on Lightning Strokes to Power Lines
11:30 AM - 1:00 PM	Lunch	
1:00 PM – 2:30 PM	Session 9 – Composites Protection <i>Chair:</i> <u>AAM-5</u> – Advances in Lightning Strike and Electromagnetic Protection Via Nanotechnology <u>AAM-7</u> – Electrical Characterizations of Lightning Strike Protection Techniques for Composite Materials <u>AAM-4</u> – Evaluation of Lightweight Nano and Macro Conductive Materials for Lightning Strike Protection of Polymeric Composites	Session 10 – Lightning and Buildings <i>Chair:</i> <u>GFS-1</u> – Mitigating Rapid Redistribution of Charge: FAA Standards for Facility Lightning Protection <u>GFD-1</u> – Lightning Protection of a Large High Consequence Operations Building <u>GME-2</u> – Lightning Caused Deaths and Injuries In and Near Dwellings
2:30 PM – 3:00 PM	Coffee Break	
3:00 PM – 5:15 PM	Tours Busses meet outside Crowne Plaza Hotel Lobby	
6:30 PM – 8:30 PM	Conference Banquet Location: Ballroom Awards Ceremony Invited Speaker	

TIME	THURSDAY 17 SEPTEMBER 2009	
6:30 am – 8:30 am	Breakfast - Open Seating Buffet Thursday Session Chairs - Meet with Presenters (7:30AM)	
Location	Berkshire 1	Berkshire 2
8:30 AM – 10:00 AM	<p>Session 11 – Composites and Fasteners <i>Chair:</i></p> <p>AAM-6 – Understanding the Sparking Phenomenon in CFRP Assemblies</p> <p>AAD-1 – Development of Sleeved Fasteners to Mitigate Fastener Sparking</p> <p>AAM-1 – Testing the Contact Resistance of Various Fastener Systems in Composite Laminate</p>	<p>Session 12 – Wind Turbines and Tall Structures <i>Chair:</i></p> <p>GWD-1 – Verification of Safe Locations in a Wind Turbine During Thunderstorms</p> <p>GWE-1 – Wind Turbine Blades: One Explanation of Consequential Damage</p> <p>GWT-1 – Mobile Impulse Current Generator for Verifying the Lightning Protection of Wind Turbines According to IEC 61400-24 (CD)</p>
10:00 am –10:30 AM	Coffee Break	
10:30 AM – 12:00 AM	<p>Session 13 – Composites Direct Effects <i>Chair:</i></p> <p>AAT-1 – Direct Effects Polarity Differences in Temperature</p> <p>AAM-2 – Evaluation of CFRP with Expanded Products Under Arc Entry Lightning Strike</p> <p>AAM-3 – Damage Resistance and Tolerance of Carbon/Epoxy Composites Under Lightning Strike Loading</p>	<p>Session 14 – Electrostatics <i>Chair:</i></p> <p>AEP-1 – The Charging of Aircraft in a Dust Storm Environment</p> <p>AEP-2 – Measurements of Corona Pulses in the Trailing Wire of a Statically Charged Aircraft</p> <p>AET-2 – A Study of Electrostatic Charges on 22LR Projectiles Fired from a Rifle</p>
12:00 PM – 1:15 PM	Lunch	
1:15 PM – 3:15 PM	<p>Session 15 – Numerical Simulation and Testing <i>Chair:</i></p> <p>AAT-5 – Surface Magnetic Field Measurements Using Ferrite Core Sensors</p> <p>AAA-6 – Evaluation Study of Lightning Current Distribution in Plate Materials</p> <p>AAA-5 – Modeling the Effects of Anisotropic Materials on Lightning Induced Current Flow in Structures Containing Carbon Fiber Reinforced Plastic</p> <p>AAA-2 – Study of Current Flow and Incidental Electrical and Magnetic Fields on Carbon Fiber Reinforced Plastic Box Structure by Numerical Simulation</p>	<p>Session 16A – Aircraft Test and Assessments <i>Chair:</i></p> <p>AAT-4 – Comparison of Lightning Induced Effects on Cables and Systems in Composite and Lithium Bodies</p> <p>AAT-(TBA) – Testing of Cots Equipment</p> <p>Session 16B – Lightning Attachment to Structures <i>Chair:</i></p> <p>GWP-1 – High Speed Video Observations of Downward Lightning Attachment to a Tall Tower</p> <p>GFP-1 – Examining Rapid Redistribution of Charge: FAA Site Case Study of Near Strike Damage</p>
3:15 PM – 3:45 PM	Coffee Break	
3:45 PM - 4:30 PM	<p>Session 7 –Report on Status of Industry Standards <i>Chair:</i></p> <p>Updates by Technical Committees Future Needs and Updates</p>	
4:30 PM – 5:30 PM	<p>Presentation on ICOLSE 2011</p> <p>Closing Plenary Session:</p>	