The Hampton Roads Chapter of AHS International would like to gratefully acknowledge the following exhibitors, who have participated in and supported this meeting.

LIST OF EXHIBITORS

Advanced Technologies, Inc.
The Boeing Company
East/West Industries, Inc.
GE Aviation
Lockheed Martin Thermal Protection Products
Materials Research & Design, Inc.
MECHSIM Engineering Solutions
Pratt & Whitney
Sikorsky Aircraft Corporation
Sikorsky-Boeing JMR Team
Triumph Aerospace Systems
Newport News
AHS International

PROGRAM AGENDA

The Hampton Roads Chapter (HRC) of the American Helicopter Society International

Presents the

TECHNICAL SPECIALISTS’ MEETING ON ROTORCRAFT STRUCTURES AND SURVIVABILITY

Structures Solutions for Future Vertical Lift

General Chairman: Mr. Jon Schuck
US Army ADD

Technical Chairpersons: Dr. Mark E. Robeson
US Army ADD-AATD
Mr. Nate Bordick
US Army ADD-AATD
Dr. Karen E. Jackson
NASA Langley Research Center

Exhibit Hours
Tues., 29 Oct 2013, 7:00 AM-5:00 PM, 6:00-8:00 PM
Wed., 30 Oct 2013, 7:00 AM-5:00 PM, 6:00-7:00 PM
Thursday, 31 Oct 2013, 7:00-9:00 AM

Exhibit Chairman: David Meyer, Boeing

October 29-31, 2013
Ft. Magruder Hotel and Conference Center
Williamsburg, Virginia
Quick Look Agenda

Monday, October 28, 2013
• Golf Tournament, The Pines Golf Course, Ft. Eustis, VA
• Meeting Registration 4:00-7:00 PM

Tuesday, October 29, 2013
• Continental Breakfast, 7:00-7:45 AM
• Welcoming Comments, 7:45-8:00 AM
• Session A: Structural Integrity and SHM
  • Luncheon, 12:00 – 1:30 PM
    Guest speaker: TBD
    Topic: Joint Multi Role Tech Demo
  • Session B: Durability & Damage Tolerance
  • Exhibitor’s Reception, 6:00-8:00 PM
  • Dinner - On Your Own

Wednesday, October 30, 2013
• Continental Breakfast, 7:00-7:45 AM
• Announcements, 7:45-8:00 AM
• Session C: Ongoing/Future Programs
  • Lunch (on your own) 11:30–1:30 PM
• Session D: Crashworthiness
• Exhibitors Reception, 6:00-7:00 PM
• Banquet: 7:00– 9:30 PM
  Guest Speaker: TBD

Thursday, October 31, 2013
• Continental Breakfast, 7:00-7:45 AM
• Exhibit Hall, 7:00-9:00 AM
• Announcements, 7:45-8:00 AM
• Session E: Crash/Vulnerability Reduction
  • Closing Comments, 12:00 PM
  • Adjourn, 12:15 PM
### WEDNESDAY, October 30, 2013

<table>
<thead>
<tr>
<th>Time</th>
<th>Session C: Ongoing/Future Programs and Structures Technology, Moderator – Jackson, NASA</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 – 7:45 AM</td>
<td>Continental Breakfast</td>
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<tr>
<td>7:45 – 8:00 AM</td>
<td>Announcements</td>
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<tr>
<td>8:00 – 11:30 PM</td>
<td>“An Introduction to the Combat Tempered Platform Demonstration,” Cappelli, Sikorsky Aircraft</td>
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<td>8:00 – 8:30 AM</td>
<td>“NASA’s Advanced Composites Project,” Young, NASA Langley Research Center</td>
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<tr>
<td>9:00 – 9:30 AM</td>
<td>“Composite Certification Initiative,” Schuck, US Army ADD</td>
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<td>9:30 – 10:00 AM</td>
<td>Break</td>
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<tr>
<td>10:00 – 10:30 AM</td>
<td>“Micromechanical Model of X-Cor and K-Cor Reinforced Foams,” Caputo, Materials Research and Design</td>
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<tr>
<td>10:30 – 11:00 AM</td>
<td>“Damage Tolerance Stretched Broken Carbon Fiber,” Crocco, US Army ADD-AATD</td>
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<tr>
<td>11:00 – 11:30 AM</td>
<td>“Advances in Prediction of Residual Stress and Part Distortion of Machined Components,” Erickson, Third Wave Systems</td>
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<tr>
<td>11:30 – 1:30 PM</td>
<td>Lunch (on your own)</td>
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### THURSDAY, October 31, 2013

<table>
<thead>
<tr>
<th>Time</th>
<th>Session E: Crashworthiness and Vulnerability Reduction, Moderator – Bark, NAVAIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 – 7:45 AM</td>
<td>Continental Breakfast</td>
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<tr>
<td>7:45 – 8:00 AM</td>
<td>Announcements</td>
</tr>
<tr>
<td>8:00 – 12:00 PM</td>
<td>“Predicted Performance of an Optimized Energy-Absorbing Crashworthy Seat During Idealized and Actual Crash Pulses,” Richards, BAE Systems</td>
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<tr>
<td>8:30 – 9:00 AM</td>
<td>“Side-Facing Seat Injury Criteria and Testing Methodology Development,” Richards, BAE Systems</td>
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<td>9:00 – 9:30 AM</td>
<td>“Aircraft Seat Certification by Analysis from a Regulatory Perspective,” Pelletiere, FAA</td>
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<td>9:30 – 10:00 AM</td>
<td>“Appropriate Dynamic Testing of Seats Installed in Rotorcraft,” Miles, FAA</td>
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<tr>
<td>10:00 – 10:30 AM</td>
<td>Break</td>
</tr>
<tr>
<td>10:30 – 11:00 AM</td>
<td>“Variable Profile Energy Absorbers,” Labun, SAFE, Inc.</td>
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<tr>
<td>11:00 – 11:30 AM</td>
<td>“Development of Ballistic Tolerant Aircraft Structure,” McCarthy, The Boeing Company</td>
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<td>11:30 – 12:00 PM</td>
<td>“Blast Analysis of Aircraft Structure,” Chiu, The Boeing Company</td>
</tr>
<tr>
<td>12:00 PM</td>
<td>Closing Comments</td>
</tr>
<tr>
<td>12:15 PM</td>
<td>Adjourn</td>
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1:30 – 2:00 PM “Evaluation of the Transport Rotorcraft Airframe Crash Testbed (TRACT) Full Scale Crash Test,” Annett, NASA Langley
2:00 – 2:30 PM “Active Crash Protection System (ACPS),” Bolukbasi, The Boeing Company
2:30 – 3:00 PM “Investigation of Human Kinematics and Risk of Injury during a Vertical Crash using THOR Dummy and Human Finite Element Models,” Untaroiu, Virginia Tech
3:00 – 3:30 PM “Biodynamic Model Development for Intense Shocks,” Singh, University of Maryland

3:30 – 4:00 PM Break

4:00 – 4:30 PM “Impact Testing and Simulation of Composite Airframe Components,” Jackson, NASA Langley Research Center
5:00 – 5:30 PM “Impact Testing and Simulation of a Full-Scale Composite Fuselage Section,” Fasanella, National Institute of Aerospace

5:30 Break for the Day

6:00 – 7:00 PM Exhibitors’ Reception

7:00 – 9:30 PM Banquet, Guest speaker - TBD