

Monday - April 17, 2006

6:00pm-7:30pm *Early Registration*

Tuesday - April 18, 2006

7:30am *Registration & Continental Breakfast*

Overviews

- 8:15am Tom Ashwill (SNL) – *Recent Trends & Activities in Turbines and Blades*
- 8:40am Daniel Laird (SNL) – *Blade Research at SNL*
- 9:00am Maureen Hand (NREL) – *Cost Prediction Tool for Onshore and Offshore Turbines*

Inspection

- 9:15am Dennis Roach (SNL) – *Health Monitoring Techniques - Experience in Aviation*
- 9:45am *Break*

Effects of Aerodynamics on Blade Design

- 10:05am Helge Aagaard Madsen (Risø) - *An Investigation of Inboard Rotor/blade Aerodynamics and Its Influence on Blade Design*
- 10:35am *Stefan Herr (GE) – *Aerodynamic Study*
- 11:05am Scott Schreck (NREL) – *Turbine Flow Fields and Implications for Aerodynamic Control*

Active Devices, Flow Control and Blade Sensing

- 11:35am Jose Zayas (SNL) – *Active Control Devices for Wind Turbine Blades*
- 12:05pm *Lunch*
- 1:00pm *Case Van Dam (UC Davis) – *Approaches for Performance Predictions of Blades with Embedded Actuators Using CFD*
- 1:30pm *Lou Cattafesta (University of Florida) – *Potential for Flow Control in Wind Turbines*
- 2:00pm Jason Kiddy (SPA) – *Application of Fiber Optics to a Research Blade*
- 2:30pm *Peter Bjoern Andersen (Risø) - *Load Alleviation on Wind Turbine Blades Using Trailing Edge Flaps*
- 3:00pm *Break*

Blade Developments from the SBIR Program

- 3:20pm Mansour Mohamed (3Tex) – *3D Woven Spar Cap and 9m Blade Development*
- 3:50pm Dayton Griffin (GEC) – *Demonstration of an Infused Carbon Fiber Spar in MW-Scale Blade*
- 4:20pm *Kyle Wetzel (Wetzel Engineering, Inc.) – *Fabrication and Testing of 3m Carbon Blades*

Offshore

- 4:50pm Walt Musial (NREL) – *Offshore Blade Technology Issues*
- 5:20pm *Announcements and Adjournment*

Dinner on Your Own

Wednesday - April 19, 2006

7:30am *Late Registration & Continental Breakfast*

Commercial Blade Developments

- 8:00am Gary Kanaby (Knight & Carver) - *Swept 28-m Blade Design and Fabrication*
- 8:30am *Mark West (GE) – *Blade Manufacturing at GE*
- 9:00am *Claus Burchardt (SWP) – *Blade Manufacturing at Siemens Wind Power A/S*
- 9:30am *Derek Berry (TPI) – *Blade Manufacturing and Materials Developments*
- 10:00am *Break*

Concept Evaluation Using Subscale Blades

- 10:20am *Josh Paquette (SNL) – *Lab Testing of SNL Subscale 9m Blades*

Materials and Manufacturing Research

- 10:50am John Mandell (MSU) – *Materials Testing: Thickness Tapering and Transitions*
- 11:20am *David Hartman (Owens-Corning) - *Advances in Material Technology*
- 11:50am *Lunch*
- 1:00 pm Doug Cairns (MSU) – *Carbon Fiber Manufacturing Review and Current Status*
- 1:30pm Cliff Eberle (ORNL) – *Research to Lower the Cost of Carbon Fibers*
- 2:00pm Paul Veers (SNL) – *General Discussion including "Future Research Needs"*

Visit to AANC (Airworthiness Assurance NDI Validation Center) for Those Who Are Interested

- 2:30pm Drive to AANC Facility (*Map in Packet*)
- 3:00pm Tour AANC Facility
- 4:00pm Adjourn Workshop

*** Presentations Also Available with Embedded Video**

Stefan Herr (2,955KB)
Case van Dam (49,077KB)
Lou Cattafesta (10,321KB)
Peter Bjoern Andersen (148,633KB)
Kyle Wetzel (12,864KB)
Mark West (2,572KB)
Claus Burchardt (25,588KB)
Derek Berry (6,291KB)
Josh Paquette (52,669KB)
David Hartman (14,850KB)