

29-30 April

Conference

2010

'City of
Composites'

It is with great pleasure that Composites Australia and the Composites CRC invite you to participate in:

Conference 2010 "City of Composites"

Stamford Grand Adelaide Hotel, Glenelg Beach, Adelaide, South Australia

Conference Sessions: Thursday & Friday 29th & 30th April 2010

City of composites? New applications for composites are being found every day. Innovative applications for composites are also driven by environmental issues, and the need for materials which are lighter and stronger. Almost any article which can be produced in traditional materials such as wood and metals can be manufactured from composites.

Despite current worldwide economic pressures, the composites industry remains a vibrant, growing and unique industry. Australia's composites conference showcases the full composites & fibreglass value chain and attracts attendees from all key industries - including automotive and transport, aerospace, building & construction, civil infrastructure, corrosion, energy, marine, mining, and recreation.

See Practical Demonstrations including:

- **Plexus Adhesive Bonding for Composite Structures** - Fiber Glass International (FGI)
- **Vacuum Infusion of a Dinghy & a Glass Panel** - Nupol Composites
- **Impact Performance of Composite Panels** - DIAB Australia
- **Non Destructive Microwave Inspection of Composite Structures** - Evisive Inc
- **Ultrasonic Testing of Composites** - Olympus Australia

"Dinner by the Sea"

Don't miss the conference buffet dinner, overlooking the ocean and sponsored by Regina Glass Fibre Pty Ltd.

Thursday 29th April from 6.00pm, Ballroom, Level 1, Stamford Grand Adelaide Hotel

Known as the one industry event of the year not to be missed, this dinner always attracts delegates, their partners, guests and colleagues. And there's not a tie in sight!

Pre-Dinner drinks will follow the close of Day One of the Conference. Relax with a drink and network with colleagues before moving on to dinner. A relaxing, buffet-style event with plenty of mixing and mingling. Entertainment is included. Everyone is welcome! Both pre-dinner drinks & dinner are included in the full conference delegate registration package. Partners and guests, colleagues and friends can purchase tickets for the bargain price of \$99 each.



Programme

Wednesday 28th April

7.00 pm Welcome Drinks function

Thursday 29th April

7.30 am Registration

8.30 am Plenary Session

Introduction – opening of conference. Welcome by Genelle Coghlan, President of Composites Australia and by Murray Scott, CEO of Composites CRC. Welcome by SA Minister (TBD)

9.00 am Keynote Address: Fred Abbink, General Director, The Netherlands National Aerospace Laboratory – NLR (The Netherlands) **The Past, the Present and the Future – Three Generations of Composites Development at NLR**

9.45 am Keynote Address: Scott W. Beckwith, SAMPE, International Technical Director and President, BTG Composites Inc.

FRP and Advanced Composites: Contributions to Our Expanding Energy Market Needs

10.30 am MORNING TEA | PRACTICAL DEMONSTRATION: Evisive - Non Destructive Microwave Inspection of Composite Structures

Session A

11.00 am Non-Destructive Microwave Inspection of Composite Structures – Jack Little, Evisive, Inc. (US)

11.30 am Conventional and Phased Array Ultrasonic (UT) Non-destructive Testing of Composites – Alison Glover, Olympus Australia

12.00 pm Study of Self-Healing Epoxy Microcapsulation and Mechanical Test of Its Fibre Reinforced Composites – Jim Lee, The University of Auckland (NZ)

12.30 pm LUNCH

1.30 pm Alternative Curing Methods For Composite Materials – Paul Falzon, Composites CRC

2.00 pm Performance of Pultruded Fibre Composites After Long Term Environmental Exposure – Frank Rosselli, Exel Composites

2.30 pm Innovative Timber Pile Rehabilitation Technique using Fibre Composites. Thiru Aravinthan – USQ CEEFC and Norm Watt, Buchanan Advanced Composites.

3.00 pm AFTERNOON TEA PRACTICAL DEMONSTRATION: DIAB Australia – Impact Performance of Composite Panels

3.30 pm Emerging Applications and Opportunities for Biocomposites in Australia – Andrew Beehag, Composites CRC

4.00 pm Composites: Calculating their Embodied Energy – Sami Kara, University of NSW

4.30 pm Doing Business with Defence – Murray Davies, Defence 101

6.00 pm PRE-DINNER DRINKS

7.00 pm DINNER BY THE SEA – buffet conference dinner

Session B

11.00 am Tackling the 10 Major Issues of Bolting Composite Structures – Rik Heselehurst, UNSW-Australian Defence Force Academy.

11.30 am Overview of Emerging Repair Technologies for Composites – Michael Bannister, Composites CRC

12.00 pm Function-integrated Design of Fibre-Reinforced Polymer Composites for Constructions – Barry Y. Bai, Monash University

12.30 pm LUNCH

1.30 - 3.00 pm PRACTICAL WORKSHOP: Resin Infusion Processing: Materials, Processes, Preforms, Tooling, Applications (90 min) – Scott Beckwith

3.00 pm AFTERNOON TEA PRACTICAL DEMONSTRATION: Olympus Australia - Ultrasonic Testing of Composites

3.30 pm The Importance of the ‘Newly Developing’ Renewable or “Green” Energies Sector for the Composites Industry – Darren Bishop, RPC Technologies

4.00 pm Your Industry; Our Industry - Our Futures Combined David Johnson & Tanya Redfern – DIAB Australia

4.30 pm Self-sensing Composites – Dee Harris, University of Birmingham (UK)

6.00 pm PRE-DINNER DRINKS

7.00 pm DINNER BY THE SEA – buffet conference dinner

Venue

The venue for all Conference sessions and events is the **Stamford Grand Adelaide Hotel** in Glenelg, South Australia, a beach-side suburb of Adelaide.

Located right on the beachfront at Glenelg, the Stamford Grand Adelaide Hotel provides accommodation less than 20 minutes from the city by car or tram, and only minutes from the airport.

Glenelg is a vibrant seaside-shopping community that reflects the casual lifestyle and atmosphere of life by the sea. Enjoy any number of leisure activities by the sea including bike riding, sailing, fishing, shopping, cinemas or eating out. Morphettville Racecourse, Glenelg Golf Course and AAMI Stadium are also all close to our venue.

Or, if you like, book a tour to the world-famous wine country nearby – the Barossa, McLaren Vale, and Clare Valley all can be reached within an hour or so from our venue. Perhaps a trip to the Adelaide hills, to German-themed Hahnsdorf, or even an excursion to Kangaroo Island might make up part of your weekend. Sightseeing in Adelaide city itself – the city market, the River Torrens with its delightful garden banks, Adelaide Oval cricket grounds, the Beehive Corner at Rundle Mall, and the famous Haigh’s Chocolates will be sure to delight.

CONFERENCE 2010

Friday 30 April

7.00 am **FACTORY TOUR - Fibrelogic Pipe Systems** (limited to 50 – first come, first served. Returns to venue at approximately 9.15 am)
8.00 am Registration

FABRICATORS FRIDAY SESSION

8.30 am **The Use of Composites in the Construction of Flying Model Rockets** – Tim Banicevich, FGI

9.00 am **The Hot Rod Project & the FGI Low Shrink Tooling System** – Norm Clements, The Innovation & Training Skills Centre and students from Murray Bridge High School

9.30 am **Process Control for Low Styrene Emissions** – Denny Fink, Syrgis Inc.

10.00 am **PRACTICAL DEMONSTRATION: FGI – Plexus Adhesive Bonding for Composite Structures**

10.30 am **MORNING TEA**
PRACTICAL DEMONSTRATION: Nupol Composites – Vacuum Infusion of a Dinghy & a Glass Panel

11.00 am **Tooling Technology – Current State-of-the-Art and New Materials** – Scott Beckwith

11.30 am **WORKSHOP: Risk Assessment for Health Hazards in the Composite Industry (1 hr)** – Joseph Crea, Occupational & Environmental Hygiene Consulting, University of Adelaide

12.30 pm **LUNCH**

1.30 pm **PRACTICAL DEMONSTRATION: Nupol Composites – Vacuum Infusion of a Dinghy & a Glass Panel**

2.00 pm **SUPPLIER SESSION: Australia's Tomorrow is Here Today: The next generation of high performance gelcoats –XLA PLUS (20 min)** – Valspar Corp. (Australia), Darren Smith

2.20 pm **SUPPLIER SESSION: The Attributes of Composite Pre-Pregs. (20 min)** – Australia Composites, George Carydias

2.40 pm **Better Quality Control in Composites Manufacturing** Dennis Newell, The Newell Group

3.00 pm **AFTERNOON TEA**
PRACTICAL DEMONSTRATION: DIAB Australia – Impact Performance of Composite Panels

3.30 pm **Ultimate Sailing –The Wing-borne Hydrofoil (WBHF) Sail Craft Project**
Stephen Bourne – Wing-Borne Hydrofoil

4.00 pm **The Role of Composites in the Development of a Hovercraft for the Detection of Landmines** – Rahim Kurji, University of Adelaide

4.30 pm **WRAP-UP & WINE TASTING**

Session B

8.30 am **GRP in Recycling Water & Desalination Water Industry** – Pierre Gouhier, RPC Technologies

9.00 am **The Devil is in the Detail** – Dennis Southam, Dennis Southam & Associates

9.30 am **Persistence Pays – Murphy's Law In Practice** – Arthur Rendell, Regina Glass Fibre

10.00 am **Enterprise Connect** – Enterprise Connect representative

10.30 am **MORNING TEA**
PRACTICAL DEMONSTRATION: Evisive – Non Destructive Microwave Inspection of Composite Structures

11.00 am **Process Monitoring of Thermosetting Resins Using Low Cost Optical Fibre Sensor Systems** – Dee Harris, University of Birmingham (UK)

11.30 am **TUTORIAL: Composite Structural Repairs (1 hr)** – Rik Heslehurst, UNSW-Australian Defence Force Academy.

12.30 pm **LUNCH**

1.30 pm **Large Volume Production of GRP Pipes** – Mariyn Manuel, Fibrelogic Pipe Systems

2.00 pm **Continuous Production of GRP/GRE Pipe with PU Insulation Applied On-Line** – Marco Volpi, VEM Spa (ITALY)

2.30 pm **From Boats to Buildings, and Between** – Richard Downs-Honey, SP-High Modulus (NZ)

3.00 pm **AFTERNOON TEA**

3.30 pm **E-learning Innovations on Fibre Composites** – Thiru Aravinthan, USQ CEEFC and Roger Cater, PARTEC Institute

4.00 pm **New and Improved Federal R&D Incentives for SMEs** – Martin Jones, Composites CRC

4.30 pm **WRAP-UP & WINE TASTING**

Programme and other event details are subject to change. Composites Australia is not liable for any loss or expenses incurred.

To book your accommodation

Composites Australia has block-booked a number of rooms at a specially-negotiated conference price of \$200.00 per night. To secure this rate, contact the hotel on +61 8 8376 1222 and quote the Composites Australia conference rate code: CO2804, or use the form on the conference website: www.compositesconference.com

This rate has been secured for the 28-30th April on a first-in first-served basis,

and is also applicable for delegates booking to arrive up 3 days prior and/or stay up to 3 days after, as long as rooms are available. Rooms are limited – so book early to avoid disappointment!

Note: the Conference venue is "The Stamford Grand Adelaide", located in Glenelg. The "Stamford Plaza Adelaide" in Adelaide is a hotel in the same chain but is located in the Adelaide City Centre.

How Black Becomes Green

at  **HITCO CARBON COMPOSITES, INC.**



Modern aircraft is made using strong, lightweight, composite materials that save fuel and reduce their carbon footprint on our environment.

HITCO has transformed itself into a state-of-the-art composite manufacturing facility utilizing automated equipment and testing capabilities such as:

- A large 20' diameter by 50' long autoclave supplied by Thermal Equipment Corporation



- Two Charger™ automated tape layers and a two station Viper® 600 Automated Fiber Placement System from MAG Cincinnati



- Two 5-axis Ultrasonic C-Scan immersion systems designed and developed by MISTRAS Group, Inc. to HITCO for the inspection of carbon composite structures essential to modern composite aircraft.



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