



IMFormation February 2009

IMFAIR 09

10 & 11 June 2009

**Royal Air Force Museum Cosford,
Shropshire UK
Conference on Surface Coatings and Surface
Engineering for the Aerospace Industry**

The conference will be held in the 200 seat auditorium within the Cold War Museum building with associated exhibitions in adjacent rooms from which morning and afternoon refreshments will be served. Lunch will be served within the Cold War Museum. Delegates will also be able to peruse the various exhibits within the museum site during free time.

Park House Hotel, Shifnal been designated the 'Conference Hotel' being situated a short car drive from the museum site and where a Gala Dinner will be held on the Wednesday evening. There are a host of international hotels a short distance away at Telford and Shifnal. All hotels provide a discounted rate for events held at the RAF Cosford Museum.

The 'Call for Papers' produced an excellent response of presentations from International companies from both home and abroad. The provisional list of conference presentations for each day is shown below:

Wednesday 10 June 2009

09:30 Registration and Coffee served from the Exhibition Rooms

10:20 Welcome by Commandant of the Defence College of Aeronautical Engineering and Officer Commanding Royal Air Force Cosford

10.30 Keynote address - Requirements for high performance finishes for aero engines and ancillaries– G.Armstrong (Chairman, IMF Organic Group)

11:00 Electroplated Fasteners: A Cautionary Tale – C.Arnold & E. Gower (BAE Systems Integrated System Technologies)

11:30 Aerospace Organic Coatings – A.Richardson (Akzo Nobel Aerospace Coatings) – Corrosion Properties of Waterborn Coatings - P.de Bruin

12:00 Electrodeposited Nanocrystalline Metals and Alloys as Environmentally – Compliant Replacement Coatings for Functional Hexavalent Chromium and Cadmium – D.Facchini (Integran Technologies Inc. Canada)

12:30 LUNCH served from within the Cold War Museum

14.00 Cadmium Replacement Using Zinc Alloys Electrodeposited from Ionic Liquid Electrolytes – G.D.Wilcox (Loughborough University)

14.30 An environmentally friendly sol-gel route for the provision of anticorrosion Coatings



for aerospace application – R.Akid (Sheffield Hallam University)

15:00 Tea/coffee served from the Exhibition Rooms

15:30 Aerospace Organic Coatings – B. Parrott (PPG) – title to be advised

16:00 Solvent emission from the organic coating process- J. Rowbothom (PEXA)

16:30 Low Energy Sol-Gel Materials as Protective Aerospace Coatings – B.Duffy (Dublin Institute of Technology, Eire)

17.00 End of Conference for the day

21.30 Gala Dinner in the Park House Hotel, Shifnal Shrestha

Thursday 11 June 2009

09:00 Keynote Address - The Future of Design for Surface Engineering in Aerospace Applications - D S Rickerby (Rolls Royce Ltd)

09:30 Platinum Plating for Turbine Blades: Technology Development and Process Improvement - S.Hemsley (Metalor Technologies Pte Ltd, Singapore)

10:00 Enabling lightweight aero-bearings - S.Banfield (TECVAC Ltd)

10:30 Tea/coffee served from the Exhibition Rooms

11:00 The effect of Elastic Compliance of PYSZ EB-PVD Thermal Barrier Coatings on Cyclic Test Lives – B.Williams (Rolls Royce – Surface Engineering Group)

11:30 Hard Anodising of Aerospace Aluminium Alloys – L.Lerner (Sanford Process Corporation, USA)

12:00 Novel Surface Coating Technology of Light Alloys for the Aerospace Industry - S. Shrestha (Keronite International Ltd)

12:30 LUNCH served from within the Cold War Museum

14.00 The Art of Invisibility; camouflage coatings requirements now and in the future – M.Gilmor, (DSTL)

14:30 Pretreatments for the Optimised Adhesion of Aluminium in Aerospace Applications – G.W.Critchlow (Loughborough University)

15:00 Nanostructured Co-W alloys produced by electrodeposition for replacement of hard chromium on aerospace components – S.Harris (University of Nottingham)

15:30 Discussion and end of conference

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For reservations for attending delegates and exhibitors including discounted rates for early bookings, together with details of hotels offering discounted rates for attendance at the Royal Air Force Museum Cosford, see insert with this IMFormation newsletter.

Health, Safety and Environment

European Chemical Agency (ECHA)

ECHA has included a further 15 substances in the candidate list of substances of very high concern (SVHC) for authorisation. The list, published on the ECHA website will be updated regularly as more substances are identified. The Candidate List Pages provide an up-to-date list as well as background information on each substance and related obligations see: http://echa.europa.eu/chem_data/candidate_list_en.asp

Company News & Products

Atotech GmbH

The IMF were invited (with some 350 other guests and staff) to join in the opening of Atotech's new European TechCenter in Trebur Germany for corrosion protection applications, held at the Sheraton Frankfurt Hotel & Towers. The event focused on Atotech's position as sole suppliers for both plating and coating technologies and included a customer seminar on new trends and technologies for electrolytic corrosion protection, zinc flake coatings for automotive and non-automotive use and Atotech's involvement in sustainability.

Worsleys Testing Laboratory Services

Worsleys is part of the Bodycote Testing Group. The laboratory's testing expertise is based on testing programmes undertaken on behalf of customers. Testing includes the various Salt Sprays – NSS, ASS, CASS and Cyclic Corrosion Testing as well as tests of Physical Properties of Materials and Coatings.

For more information please contact David Ingles or John Montgomery Tel: 02476 344 or Fax: 02476 371 or E mail: sales-mt@bodycote.com

IMF News

Christmas Event and AGM 2008

This event held 10 December must rank as probably the best for some years with 60 people in attendance.

The day commenced with a presentation by Graham Armstrong entitled 'Trains, Boats and Planes' which looked at the specific requirements, these means of travel, not just of those used today but also refurbishing of past models where attention to colours used was an essential requirement.

Then followed the presentation of the various Institute awards including a complete surprise to recipients of the Samuel Field medal and the Eddy Marlow medal. See the Transactions for full details.

The pre-lunch presentation was by David Gabe entitled 'Stirring, Shaking and Mixing'. First on the agenda, the audience was shown a OHP slide of the British Standard on 'how to make a cup of tea'. This was a surprise to most of those present who were not aware that a standard existed (BS 6008)! We were then treated to a practical demonstration of the various means of achieving the title of the presentation.

The finale was the IMF's equivalent of the Western Brothers with David Gabe on the keyboard and Tony Hart's rendering of Widecombe Fair, with those names in the song



replaced by the various past president names not forgetting Simon Wernick as Uncle Tom Cobby!

There followed an excellent traditional Christmas lunch and wine, followed by William Smith of the Galvanizers Association who proposed the toast to the Institute with the response by Trevor Pearson.

The AGM was a much shortened affair this year, with no serious matters being discussed. Full report will be in January edition of the Transactions.

New Sustaining Members

Precision-Aircraft Ltd

1 Riverview, Richfield Avenue

Reading RG1 8EW

Tel: 0118 957 2768, Fax: 0119 950 5941

Manufacturer of aerospace components using CNC machine tools, both milling and turning. Conventional methods – all disciplines including fabrication, sheet metal work and welding as well as a surface treatment facility including paint shop and NDT.

Change of Name & Address

Apple Aluminium Ltd

29 Maiting Street

Sheffield S4 7ZN.

Tel: 01142 497188.

Email: sales@appleshopfronts.com

Was previously: Apple Shopfronts Ltd

Greentree – Shercon

Units F1&2, Telverton Business Park

Yelverton, Devon PL20 7PE

Tel:0800 731 5980, Fax:0800 731 5981

Greentree – a leading supplier of masking and protection products to all markets/industries with an extensive range in a variety of materials, specialising in standard and custom designs.

New members and transfers

Fellow - FIMF

Curry, David Tewksbury Diamond Chromium Plating Ltd

Timms, Jonathan Atotech Asia

Associate – AssocIMF

Moore, Gordon Aerospace Machinin Technology

Student

Sialvi, Zeeshan Loughborough Univ.

Senior member's meeting

The next meeting will be held on Wednesday 29 April in Exeter House commencing at 12.00. Following Lunch there will be a presentation by Dr Denis Layton.



Education Review & Revision

The units for the Foundation Certificate module are being revised and new ones added. These will be on stream for study from 1 July 09. New units include: Corrosion, Surface Improvement & Services as mandatory units with units on Testing Paint & Powder Materials & Coatings and Vacuum Metallisation in the optional units' list. The last enrolment for the existing system will be May 09.

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The Technician Certificate course/modules (General Principle & Plating Practice) are being revised to make the syllabus for study by both Tutoring and Distance Learning more compatible. Additionally, it is proposed to update the syllabus of the Paint & Powder, Automotive Surface Finishing and add Health & Safety to a revised Environment for Surface Finishing modules. These modules will rate for a full Technician Certificate.

It is proposed to have the above on stream for study from 1 July 2010.

Defence Standards review

The following Defence Standards: 03-36 Guidance to the use of Cadmium Alternatives in the Protective Coating of Defence Equipment, and 03-38 Guidance for the use of Alternatives to Hexavalent Chromium for protective coating of Defence Equipment have been subject to review and are expected to be finalised later this year.