



COLLEGIUM BASILEA

Cranfield
UNIVERSITY

SECOND (FINAL) CIRCULAR

Inhalable toxic chemicals on board aircraft:

Priorities for research and action

Tuesday 11th October 2011, 10:00–18:00

The Senior Lounge, Mitchell Hall, Cranfield University, Bedfordshire, UK

The aims of this Workshop will be to: (1) critically review the large amount of accumulated data on the hazard, including the very recent UK Department of Transport report (“Aircraft Cabin Air Sampling Study” published 10 May 2011); (2) integrate knowledge of relevant medical advances; and (3) establish priorities for what should be done next.

Programme: see page 2.

Prior registration is required: please see page 4 for contacts.

Registration and welcome coffee/tea will be available **from 09:00 onwards**.

Registration fees: see page 3.

Travel to Cranfield University campus:

By air: the University’s airfield is adjacent to the campus. After landing, please report to the Control Tower, and request that landing fees be invoiced to Prof. Ramsden.

By rail: *from London:* every 15 minutes from Blackfriars, Farringdon, St Pancras etc. to Flitwick (taxis available, 20 minutes to Cranfield U.) *OR* from Euston to Milton Keynes Central (taxis available, 20 minutes to Cranfield U.); *from Birmingham, Manchester etc.:* to Milton Keynes Central; *from Nottingham, Sheffield etc.:* to Bedford Midland (taxis available, 20 minutes to Cranfield U.).

By motor-car: consult <http://www.cranfield.ac.uk/locations/cranfield/page2256.html>
Postcode is MK43 0AL. M1 junctions are 13 (from the south) and 14 (from the north). Parking is available in front of Mitchell Hall.

More information, including useful contacts, on page 4.

Programme

Chairman (Prof. Jeremy Ramsden, Cranfield University)

Note that discussions of all papers will take place during the panel sessions

Session 1: Critical review of present knowledge

- 10:00 Chairman's welcome
- 10:05 The scientific adequacy of the present state of knowledge (Jeremy Ramsden)
- 10:25 Health and flight safety implications from exposure (Susan Michaelis)
- 10:45 Exposure of offshore workers to organophosphate-containing engine oils used on aeroderivative gas turbines (Halvor Erikstein)
- 10:55 Psychological issues meet up with physical issues (Len Lawrence)
- 11:05 **Panel (Erikstein, Michaelis) discussion**
- 11:25 Break (tea & coffee served in the bar lounge)

Session 2: Medical (including neurology, physiology etc.) aspects

- 11:45 Neuropsychological deficits in affected pilots (Sarah Mackenzie Ross)
- 12:05 Noninfectious myalgic encephalomyelitis (ME)-type disease: diffuse central nervous system injuries from toxic chemicals (Byron Hyde)
- 12:55 **Panel (Furlong, Hyde, Mackenzie Ross, Mulder) discussion**
- 13:15 Break (buffet lunch)
- 13:45 Detection and diagnosis of tricresyl phosphate (TCP) exposure (Michel Mulder)
- 13:55 Triarylphosphates—metabolism and enzyme inhibition (Clem Furlong)
- 14:40 Health survey (Dee Passon)
- 14:50 The Aerotox Association: supporting sufferers (John Hoyte)
- 15:00 Biochemical treatment to counteract effects of TCP exposure (Mulder)
- 15:20 **Panel discussion (continued)**
- 15:40 Break (tea & coffee served in the bar lounge)

Session 3: Possible technical solutions

- 16:00 Possible contributions of nanotechnology—sensorization and adsorption (Ramsden)

Session 4: Legal and economic implications

- 16:10 Industry reaction to media reporting (Tim van Beveren)
- 16:30 The consequences of ignorance about aerotoxic syndrome (Philip Parsons)
- 16:40 The big picture (Tristan Loraine)
- 16:50 The consumer exposed (Frank Brehany)
- 17:10 **Panel (van Beveren, Brehany, Loraine, Parsons) discussion**
- 17:25 Summing up (Malcolm Hooper)
- 17:55 Chairman's closing remarks
- 18:00 **Close**

List of reports (and their URLs, where available) to be discussed in Session 1

CAA PAPER 2004/04 Cabin Air Quality (February 2004)

http://www.caa.co.uk/docs/33/CAPAP2004_04.PDF

COMMITTEE ON TOXICITY OF CHEMICALS IN FOOD CONSUMER PRODUCTS AND THE ENVIRONMENT. STATEMENT ON THE REVIEW OF THE CABIN AIR ENVIRONMENT, ILL-HEALTH IN AIRCRAFT CREWS AND THE POSSIBLE RELATIONSHIP TO SMOKE/FUME EVENTS IN AIRCRAFT (2007)

http://www.rsc.org/images/balpa_tcm18-99526.pdf

Muir, H., Walton, C. and McKeown, R. Cabin Air Sampling Study Functionality Test, Cranfield University, January 2008

<http://webarchive.nationalarchives.gov.uk/+http://www.dft.gov.uk/pgr/aviation/hci/cabinairtest.pdf>

Crump, D., Harrison, P. and Walton, C. Aircraft cabin air sampling study. Institute for Environment and Health, Cranfield University (March 2011).

<http://www.cranfield.ac.uk/health/researchareas/environmenthealth/ieh/cabinairquality1.pdf>

Accommodation

Delegates requiring overnight accommodation are kindly asked to arrange it themselves. We have, however, reserved a few rooms in nearby hotels; please enquire if you have difficulties in finding a room. If you let us know in advance where you are staying, we may be able to arrange local transport.

Contacts

Workshop chairman: Prof. Jeremy Ramsden, Chair of Nanotechnology, B-70, Cranfield University, Bedfordshire, MK43 0AL, UK ; tel. +44 1234 750111 ext. 2501 ; fax +44 1234 751346 ; e-mail j.ramsden@cranfield.ac.uk

Workshop secretary: Christine Standing ; e-mail christinestanding@me.com