COURSE REGISTRATION
Design and Airworthiness of Helicopters

Name: ………………………………………………..
Position: ………………………………………………
Company: ……………………………………………..
Address: ………………………………………………
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Telephone: ……………………………………………
Fax: ………………………………………… ………….
E-mail: …………………………………………………

Registration closes Friday 20th June 2008
Mail or fax this form with your payment details to:
The Course Secretary
Wackett Aerospace Centre RMIT
GPO Box 2476V
Melbourne, Vic 3001
Fax: +61 3 9645 4534

Method of Payment
☐ I enclose a cheque for $ _______ payable to: RMIT University
☐ Please invoice my Company (give full details)
☐ Debit my Credit Card:
☐ BankCard ☐ Visa ☐ MasterCard

Amount: $ __________
Card Number: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Card Expiry Date: ___ / ___
Cardholder’s Name: ___________________________
Cardholder’s Signature: _______________________

AHS Membership No: ________________

WACKETT AEROSPACE CENTRE
Established by RMIT University in 1991 as a joint initiative of the Department of Aerospace Engineering and the Department of Mathematics, the Centre aims to create new intellectual property in partnership with industry, through research and design that addresses real world issues, for commercial use and development. The Centre is a major participant in the Cooperative Research Centre for Advanced Composite Structures (CRC-ACS) and is the DSTO Centre of Expertise for Aerodynamic Loading (CoE-AL).

The Centre is located on the GKN Aerospace Engineering Services Pty Ltd site on Lorimer St in Fishermens Bend. This location is ideal for collaboration with industry partners, most of which are located in this “Aerospace Precinct” of Melbourne. The Centre regularly interacts with its Advisory Board, comprised of senior executives of aerospace companies and Government entities, for strategic guidance in business development.

Aerospace and Aviation Research
The Centre focuses its attention on the following fields of aerospace/aviation research: Operations, Design, Management and Support. A total of about 20 MEng and PhD postgraduate researchers are participating in various research projects.

Aerospace Design and Commercial Office
The Centre has established an Aerospace Design and Commercial Office that provides design and consulting services to the aviation and aerospace industries. The office is an approved design organisation authorised under Australian Civil Aviation Regulations 35 and 36, for the design and modification of certified aircraft.

Continuing Education and Training
The Wackett Aerospace Centre provides a continuing education and training program in aerospace, aviation and related fields. The program includes courses in finite-element analysis, mechanics of composite materials, aircraft, UAV and helicopter design, aeroelasticity and structural dynamics. Course instructors are drawn from Australia as well as overseas. Offshore delivery of courses can be arranged.

CONTINUING EDUCATION AND TRAINING SERIES

Design and Airworthiness of Helicopters
This 5-day course covers a diverse range of topics related to the operation and design of helicopters. Civilian and military operators are increasingly using helicopters for a variety of applications. In certain roles helicopters offer numerous advantages over fixed-wing aircraft. Starting with some history and a background into helicopter operations, this course will expose participants to present and future roles and missions of helicopters. Design considerations such as aerodynamics, structures, mission systems, payload, survivability etc will be covered under a series of design lectures. An applied design project will be conducted on the last day.

30th Jun – 4th Jul 2008

Wackett Aerospace Centre
Science Engineering and Technology Portfolio
RMIT University
Postal Address: GPO Box 2476V, Melbourne, Vic 3001, Australia.
Ph: +61 3 9645 4536  Fax: +61 3 9645 4534
E-mail: e71841@ems.rmit.edu.au
Internet: http://www.rmit.edu.au/wackett
COURSE OUTLINE
The course includes the following topics and more.

- Introduction and Background
- Helicopter aerodynamics
- Helicopter roles and missions
  - military
  - civil
- Mission systems
  - armament
  - observation and display
  - survivability
- Mission profile
  - fire support
  - reconnaissance and surveillance
  - medical emergency
- Design
  - mission payload
  - gross weight
  - rotor system
  - configuration layout
  - upgrade
- Vertical take-off UAVs
- Structural Design
  - structural layout
  - rotor system loads
  - design loads
  - fatigue implications
- Design and Airworthiness
- Design Project/Workshop with discussion.

Veliath J Anthony
Veliath’s achievements over 25 years range from operational to management, both on-board and off-board fixed-wing and rotary wing platform – as a Pilot, Lecturer/Instructor, Senior Advisor, Investigator/Researcher/Consultant, Manager and Director. Veliath’s flying experience covers civil and defence in a very wide field.

Robert J Hood
GKN Aerospace Engineering Services
Bob Hood is a graduate from RMIT, and Cranfield University, UK. His extensive industry and defence career in airworthiness, structural integrity, and aircraft design provides him with a background for this course. His lecture material covers practical helicopter structural design including layout, loads analysis, regulatory requirements, and approaches to fatigue. Durability and damage tolerance will be discussed with suggested approaches for helicopters.

Peter H Hoffmann
School of Aerospace, Mechanical and Manufacturing Engineering, RMIT University
Peter graduated from Monash University and gained his PhD in fluid mechanics from Melbourne University. Following postdoctoral research at the Aeronautics Department at Imperial College, London, he joined RMIT’s Aeronautical Engineering group. Peter has an established career in fluid dynamics and aerodynamics, specialising in rotary wing aircraft aerodynamics. Peter will review the basic aerodynamics of rotary wing aircraft.

Branko Repse/CASA Representative
Chief Design Engineer- Wackett Aerospace Centre
Branko Repse graduated from RMIT in 1978 with a Bachelor’s degree and in 2000 with a Masters degree in Aerospace Engineering. In early 2001 he commenced work with the Civil Aviation Safety Authority (CASA). He was responsible for the audit of several design organisations and design individuals. In late 2006 he left CASA to take up his current position as Chief Design Engineer for the Wackett Aerospace Centre. One of his current projects is the certification of a foreign light aircraft in Australia.

ACCREDITATION
All participants will receive a certificate of completion after full attendance of the course. Academic credit can be given if all components of assessment are successfully completed.

PREREQUISITES
This course is intended for engineers and management personnel with exposure to aerospace design and/or operations. Basic understanding of aircraft aerodynamics and performance is required.

The course is presented by the Australian Chapter of the American Helicopter Society (AHS) International as an educational activity.

COURSE FEES
Fee for this course is $3,500 + GST (GST not applicable for students)
AHS International members $3,000 + GST
This includes course notes, morning and afternoon tea/coffee and lunches. Participants wishing to gain academic credit should enrol as a fee-paying student into AERO2402 Design and Airworthiness of Helicopters
Course fees will be returned, less a $50 administration charge, upon receipt of a written cancellation notice before Monday 20th June 2008.
The Wackett Aerospace Centre RMIT reserves the right to cancel the course, in which case participants will be notified and the course fee will be returned in full.

DATES AND VENUE
The course will be held at:
9.00 am – 5:00 pm
Monday Jun 30th – Friday 4th Jul 2008
The venue will be:
Wackett Aerospace Centre, RMIT University
Ground Floor 850 Lorimer Street
Port Melbourne VIC

REGISTRATION
To register for this course, please complete the attached registration form and forward it with your payment to the Course Secretary by Friday 20th June 2008.