Message from Course Director:

Welcome to AvGas 10.

Occupational and Aviation Medicine goes from strength to strength. Our staff remains stable, although Howard Roby, one of the first Australian student cohort, and heavily involved with Life Flight and ICU in Sydney will spell Jeff Stephenson, whose efforts on the course review have been Herculean, but deserving of a break from academia for a while. Karyn Hathaway has managed to keep teaching despite producing a lovely baby boy in between modules (see New Additions), and Russell Clarke has been in the Solomon Islands.

There are three major thrusts for our programme:

Quality; the review of the flight nurse/paramedic Certificate course has stimulated a broader review of the relevance of all our programmes, especially in aeromedical retrieval & transport, through to 2020

Connectedness; the “Second Life” project has been extended from the air ambulance setting to the occupational health heavy industry teaching medium – both are world leaders

Ubiquity – the USA is now a major market for us, and our unit specifically has numerous connections, through Universities, government, College and now United Nations involvement.

The Chinese Ministry of Education are due to visit us soon, because we are one of the most exciting and experimental distance education programmes on the planet; we are privileged to be a contributor to that energy.

Regards,

[Signature]

2015 Key Dates

8 Sept 2014: Online Admission opens: evision.otago.ac.nz
15 Jan: Admission closes.
10 Feb: S1 Fees Due
23 Feb: Semester 1 starts.
20 - 27 May: Professional Visits Programme - Calgary, Canada
6 July: Semester 2 starts.
10 July: S2 Fees Due.
Staff News…..

Rob has been appointed Foundations Director for the American College of Occupational & Environmental Medicine, and in addition to being an adjunct professor at the University of Washington, Seattle, is teaching occupational medicine to the United Nations and BP International.

A number of OAM staff and external advisers have established an Institute of Occupational & Aviation Medicine, which has and will provide external funding to the Otago programme. It will focus on teaching, research and consultancy that Otago cannot provide in a University setting, and subsidizing the University programme where funding constraints hinder our expansion.

Rob is reducing his commitment to the University in order to address Otago University shortfalls, but his availability is unchanged; as we become more worldly, we will be engaging in activities which reflect the special nature of our unit, but where consultancy will enable us to be world-leading educators.

Staff Profile: Julie Myers - Research Director Extraordinaire.

Julie Myers, OAMU Research Director, has been quietly completing the requirements to be recognized a full faculty member at the University of Otago. In May Julie was accepted for early tenure. This is considered a four year process but Julie has completed it in three. One year ahead of time! This is the University’s official acknowledgement of Julie’s commitment to academic performance and leadership in both teaching and research which comes as no surprise to those of us who have the privilege of working closely with her.

Many of you will be aware that Julie is additionally working towards her PhD. As you will read in the “Research News” article she has had an article accepted for publication this year and a couple of conference presentations under her belt. Julie has been the lynchpin in a number of recent research outputs in conjunction with OAMU faculty. She is an active and valuable part of the research community here as she actively participates in research activities around the Wellington campus and beyond. Additionally the new and exciting research opportunities that are mentioned in other parts of AvGas have been made possible by Julie’s passion for good research and its ability to transform.

What is hidden from “Research News” is the work Julie does to support the teaching side of the programme. Julie has taught the Aviation Medicine Research Methods paper for a number of years. Many of the students that complete that paper continue to the Research Project paper, which again is often supervised by Julie in conjunction with other academic staff. The students that she mentors through these two papers come from a variety of health sciences disciplines. Her ability to work across various disciplines in the pursuit of excellence in the student learning experience is what underpins Julie’s leadership abilities.

On a personal note, Julie has been my guide as I take on my first academic appointment. Starting out in a new department can be intimidating but the support and encouragement I have received from my officemate has made me feel at home and has enabled to thrive in my new ‘home’. I know that Rob echos this sentiment as we often regard Julie as the glue that holds our little unit in Wellington together.

Follow us on Twitter! @OtagoOAMU
@DrDFitzgerald @dpDavidPowell @avmed_doc @Robingriffiths @Docjohnb74
@Julie_myers
Now that got your attention! Rest assured, we are not giving up, but the Residential School is being renamed the Professional Visits Programme, to more accurately reflect the emphasis of the content. However, in Sydney at the end of May this year it was still Residential School, and was an excellent one.

On day one all the groups had an excellent visit to the Submarine and Underwater Medicine Unit at its beautiful site HMAS Penguin in Mosman, overlooking a sparkling Sydney Harbour. A number of volunteers went in the hyperbaric chamber to a depth of 50m (briefly) and experienced mild nitrogen narcosis.

The occupational medicine group went to the nuclear facility ANSTO (which produces and handles huge quantities of radio-isotopes, amongst other things), to the port at Botany, and to the fire rescue training school; they also visited Sydney’s suburban train operation and saw behind the scenes including riding in the train cab.

Aviation medicine had a full day at the Naval Air Station at Nowra, taking in helicopter operations, air traffic control, and underwater escape training; they also visited both Qantas (seeing the integrated ops centre, emergency control centre, and catering, along with discussing physicians kits), and Virgin Australia to watch ramp operations, and sample the premium

Group Photo at HMAS Penguin.
Standing on top of the hyperbaric unit.  

always, had tutorial sessions on relevant topics.

The final dinner function was in a chartered boat on Sydney Harbour, and after dinner almost $2000 was raised in a charity auction and donated to the Royal Flying Doctors Service of Australia.

This year saw us cement in place the option for some assessable activities which can be undertaken at the school, to gain some marks towards final results in the papers. This was well received.

This was also the first year that the Nursing and Paramedic stream of Aeromedical Retrieval was invited to attend a shortened programme in conjunction with the regular programme. We had three students attend as part of this programme. They found it very useful and could be found plotting how they could negotiate with their workplaces to be able to attend again in 2015.

Feedback for the school was strong, as is usually the case. Sydney is a big city and the time spent in traffic was the most frequent criticism but judging by the overall feedback, it did not detract excessively from the value.

Those in attendance: Dunstone Aleziru; Mukhtar Ali; Rajeev Bhandula; Russell Clarke; Ryan Deedo; Graham Denyer; Angela Ernst; David Fitzgerald; Kelli Fleming; Warren Foo; Joanna Foo; Gawain Fraser; Jackie Gardiner; Ian Gourlay; Rob Griffiths; Monica Hince; Andrew Hooper; Hardeep Hundal; Nicholas Ioannides; Caron Jander; Ben Johnson; Inho Kwak; David Lam; Michael Lo; Erin McDougall; Moni; Julie Myers; Pooshan Navathe; Mark Newson-Smith; Karen Oswald; David Phillips; David Poff; David Powell; Peter Prasad; Fiona Rennie; Koert Schonewille; Jeff Stephenson; Geoff Tothill; Greg Van Der Hulst; Alpo Vuoria; Fiona Webster; Prudence Young;

passenger lounge. Virgin also provided a valuable practical session in the flight simulator.

Aeromedical retrieval and transport visits were to the helicopter operations of Careflight Sydney, the New South Wales Air Ambulance and the Neonatal Emergency Transport Service; they also visited the hyperbaric unit at the Prince of Wales Hospital and an excellent session at Customer Care.

The final plenary session included talks from alumni Jo Du Flou on aviation pathology, and Howard Roby (who has since joined the Faculty) on legal aspects of patient care in the air. Individual streams also, as
Our 2015 programme is confirmed for 20-27 May next year, in Calgary, Alberta, Canada. This presents good opportunities for relevant site visits, in particular WestJet, Canada's number two airline, have agreed to host us for a day, as has the very well-organised and funded helicopter emergency medical service known as STARS. A number of interesting occupational medicine visits are being arranged including a chemical factory and support services to the oil and gas industry. We have a few good local contacts who are past or current students, and they are working to showcase Calgary which will be an interesting and fun place to visit, and easy to get around. We are in the process of finalising the accommodation in central Calgary. Details will be circulated in November-December and registrations opened soon after that. Do mark the dates in your calendars.

- David (david@flyingmedicine.com)
In December 2014, not one, not two, but nine students will graduate with a Masters of Aviation Medicine from the University of Otago Occupational and Aviation Medicine Programme. We could not be prouder. Completion of the Masters of Aviation Medicine is quite a commitment and we applaud these nine students on the years, in some cases many many years, that they have been studying with us. They now join the elite community of Alumni and we hope to see each of them on a Professional Visit Programme or in some other capacity in the coming years.

2014 Masters of Aviation Medicine Recipients:

Ola Ahmed [UAE]; Annette Forrest [New Zealand]; Amber (Chui Wa) Tang [Hong Kong]; Caron Jander [Australia]; David (Wai Yip) Lam [Hong Kong]; Kit Boyes [New Zealand]; Rocco Lombardi [Canada]; Simon May [Australia]; and Shalini Karan [New Zealand].

They work in many fields all around the world:

* In the Royal New Zealand Air Force in Riverhead.
* Emergency Doctor at Middlemore Hospital in Auckland, New Zealand
* Intensive Care Consultant at Waikato Hospital in New Zealand
* Emergency Physician outside Toronto
* Medical Officer for Cathay Pacific Airways in Hong Kong
* Aviation Medical Examiner for Virgin Australia in Sydney

Words of Wisdom:

“Blood Boils at 63,000 feet.”

“Continue learning in areas of medicine that were ‘overlooked’ in medical school”

“Pilots have the best view of sunrises.”

“Now I can both use my intensive care and be actively involved in transport organisations”

“It was a memorable experience to see and to experience the military aviation training facilities.”

“If there is one take home message from my four years in the program it is that quality and safety are the number one priority in all aspects of the industry.”
Staff Update: New and Upcoming Additions

“Leo was born in May so we’ve had 3 wonderful months getting to know this gorgeous wee man. As I’m writing some course material on fatigue I’m realising that 20 years of shift work and night shifts really didn’t prepare me for this experience of fatigue though! I take my hat off to all you parents who have juggled work and families before me! But worth every minute - he’s a very lovely and entertaining time waster!” - Karyn Hathaway: Wellington, NZ. Aeromedical Retrieval and Transport Tutor.

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“Well it’s been a pretty hectic year again – my wife Helen delivered our new arrival Felix Edward in the early hours of Saturday the 26th of April. He’s unbelievably laid back, which is lucky because he’s already having to put up with his sister who is two, lovely, but mad as a box of frogs! Here she is, making sure he is ok. Apparently everything’s fine!” - Geoff Tothill: London, UK. Aeromedical Retrieval & Transport Tutor.

“I’m 34 weeks pregnant today and the baby is due 16 October. We don’t know the gender! Matthew is now 3 years and almost 8 months old. He’s excited about the new baby.” - Rhonda. Partner of David Fitzgerald: UAE & Canberra, OZ. Aviation Medicine Tutor.

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Don’t forget to enroll now for study in 2015!

Semester 1 starts in February. For any questions email oamu@otago.ac.nz

Occupational and Aviation Medicine
PO Box 7343, Wellington New Zealand 6242
I felt maybe things had been a bit quieter since I last wrote about research for AvGas, but looking at my notes it is clear that as usual a wide variety of research has been started or completed over the past 12 months. Rob Griffiths and Dave Powell have a number of projects at various stages from planning through to near completion, and Pooshan Navathe has been prolific in terms of both journal and conference papers (see the publications list just for his 2014 collaborations with both staff and former Aviation Medicine students). At the Aerospace Medical Association (ASMA) conference in San Diego (May, 2014) both Dave and Pooshan received awards: Dave was awarded the Boothby Edwards award for aviation medicine contributions to the airline pilot community, and Pooshan the Tamisiea award for contribution to general and commercial aviation (“a leader in the application of evidence-based risk management in regulatory medicine, and an international reputation for excellence”). Congratulations Pooshan and Dave on your well recognised and high quality contributions to the field.

**Student research:** Late in 2013 both Peter Fortes and Craig Jones completed research projects for their Master’s Degrees endorsed in Aeromedical Retrieval. During semester one of 2014 Rani Tolton submitted her Masters thesis (MHealSc Aviation Medicine) for which she completed a very interesting study examining the relationship of individual pilot factors to simulated flight performance, the research conducted and jointly supervised in collaboration with Carleton University, Ottawa. Ady Wirawan has submitted his PhD thesis (cardiovascular risk assessment in airline pilots) and is waiting patiently for the examination reports! In the meantime he has been very productive, utilising a University of Otago post-submission publishing bursary to write further journal articles. He has four papers published from his thesis research so far, including a very recent paper evaluating the use of calcium scores in cardiovascular risk assessment (see the publications at the end of this report for the complete reference). Ady will soon return to his academic position in Bali or maybe to post-doc work further afield and we will miss his cheerful presence in the Department. However while he never complained I’m sure he will not miss our Wellington weather! Two other people are planning to commence their PhD studies in the near future, one in the field of asthma in diving and the other exploring electromyographic spinal loading and the mechanism of low back muscle fatigue and pain. There are also a couple of smaller Masters research projects due to get underway, one this semester and one early next year.
Research News Cont.

Other research: Dave and Rob are collaborating on two proposed projects with Honeywell Aerospace around cabin air quality and business traveler comfort and performance. Rob is also currently working on development and evaluation of an online CME programme for occupational medicine in collaboration with Washington State Dept of Labor & Industries and the American College of Occupational and Environmental Medicine. Julie continues with her programme of research (in collaboration with Dave and the Wellington ICU Flight Service) aimed at evaluating the impact of fatigue in aeromedical clinicians. They have just had an initial paper published (see publication list), and at present are working on simulation studies to evaluate the clinical performance of fatigued clinicians.

Conference presentations: As usual staff have given a variety of presentations over the last year, and at the Aeromedical Society of Australasia (ASA) conference in Melbourne, Sept 2013 it was great to also hear interesting presentations from current or former students, including Di Fuller (who won the prize for best presenter), and Jacqui Gardner. Julie Myers also attended this conference, presenting initial clinician fatigue results (and awarded best research). In May of this year Pooshan was involved in no less than five presentations at the ASMA meeting in San Diego (see the publication list for the full titles). Rani Tolton also presented some of her Masters research evaluating the relationship of various individual pilot factors (such as age and cognition) with simulated flight performance. Then in June Rob presented to the University of Indonesia on the Occupational Health and Safety of Flight attendants and Dave Powell was a keynote speaker at the ICAO Eastern and Southern African Aerospace Medicine Conference in Johannesburg. In Sept 2014, Julie will again be presenting at a combined ASAM conference (Brisbane) and will hopefully catch up in person with some of you there.

As usual any of the faculty will be happy to discuss research ideas or possibilities, and Kelli and I are always available also to walk you through any initial steps of how to start, what research qualifications are available, what’s required, where to go for help, and what steps you have to follow in terms of regulatory processes. Have a good semester – I hope many of you on the opposite side of the world are enjoying a good summer/autumn, but have to say some of us down under in NZ are looking forward to a bit more daylight and warmth as we head towards Spring!

Julie (julie.myers@otago.ac.nz)

Don’t forget to join us on Facebook!
Join our Facebook community by liking our page at www.facebook.com/AvMedOtago
Here you can interact and share Occupation and Aviation news from around the world and within our unit!
Publications since August 2013:

Peer-reviewed journal articles:


Book chapters:


Conference presentations:


Navathe, P. For A Regulator, Coronary Artery Disease is Dead Easy: Yeah Right! Aviat Space Environ Med 2014:85(3) Annual Meeting Program and Abstract Issue.


R Griffiths. The health and safety of flight attendants, University of Indonesia, Jakarta. June 27, 2014.

Myers J. “A rating system for non-technical skills in the aeromedical environment”. ASAM+ASA+FNA 2014 Conference, Brisbane 10 – 13 September