

Mechanical and Aerospace Engineering
University of California, Davis

**You're going on sabbatical?
Good on ya!**

Mike Hill, mrhill@ucdavis.edu
Professor, Mechanical and Aerospace Engineering

How about if we pack up the kids and go to England?

Proposal for Sabbatical Leave Winter and Spring 2009

*Michael R. Hill
Mechanical and Aeronautical Engineering*

Project History

The sabbatical period will be used to gain improved understanding of research and technologies for the solution of materials and structures engineering problems. The most recent of my research has been focused on the use of residual stress mechanical treatments to enhance the performance of metallic structures. The work has focused on aircraft-related materials and components, and has lead to industrial application of residual stress treatments in turbine engine components.

Significance of the Project

Hill's engineering research has been founded on specific UC Davis developments and collaborations with national laboratories (Lawrence Livermore and Los Alamos National Laboratories) and industry (Boeing IDS, Pratt&Whitney, and Sikorsky). Parallel developments have occurred in the United Kingdom through university (Oxford, Manchester, and others) and industry (Airbus and Rolls-Royce) collaborations. The sabbatical period will develop research collaborations between Professor Hill and universities in the United Kingdom, with which Hill has established contacts.

Location and Collaborators

The sabbatical leave will be spent in the United Kingdom, at Oxford, Manchester, or Bristol.

Supporting Materials

None provided.

Other Financial Support

Leave is taken at full pay; no other support has been obtained.

... whoops, first take care of some admin details

Proposal for Sabbatical Leave Winter and Spring 2009

*Michael R. Hill
Mechanical and Aeronautical Engineering*

On Jan 18, 2008, at 3:17 PM, Lili Castillo wrote:

Couple of things:

First, I found your fall '04, winter '05 sabbatical leave request. I do not have a report on that, so, before your recent request for winter/spring '09 can be processed, you must provide a report for your previous leave.

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... so you write a report

Report on Sabbatical Leave Fall 2004 and Winter 2005

Michael R. Hill
Mechanical and Aeronautical Engineering

Project History

The sabbatical period was used to further strengthen a growing research collaboration between Professor Hill and the Laser Science and Technology Program at Lawrence Livermore National Laboratory, lead by Dr. Lloyd Hackel. The research is related to the development of a surface treatment for materials called laser peening and the development of high-power, pulsed lasers. The collaboration began in June 2001, has grown steadily since that time, and is now a vital interchange between the Campus and the Laboratory. The various facets of this program have involved numerous UC Davis students (7 graduate and 5 undergraduate), other faculty in the college of Engineering, and several scientists at LLNL. Five students were in residence at LLNL during the summer of 2002 and six in 2003, that level of interaction was continued during the sabbatical period.

Location and Collaborators

The sabbatical leave had periods at LLNL, MIC and UC Davis, with approximately 30% of the leave at each location. The LLNL collaborator was Dr. Lloyd Hackel, Program Leader for Laser Science and Technology; the collaborator at MIC was John Curtis (and his staff).

Notable Outcomes

Various outcomes resulted from the leave period, the most substantial of which were an increase in the number of journal publications and conference papers resulting from the joint work, and a significant funded program that was secured from the US Defense Logistics Agency to support research in residual stress enhancement of rotorcraft components. The time and flexibility afforded by the leave were key to achieving these outcomes.

Other Financial Support

No other support was obtained.

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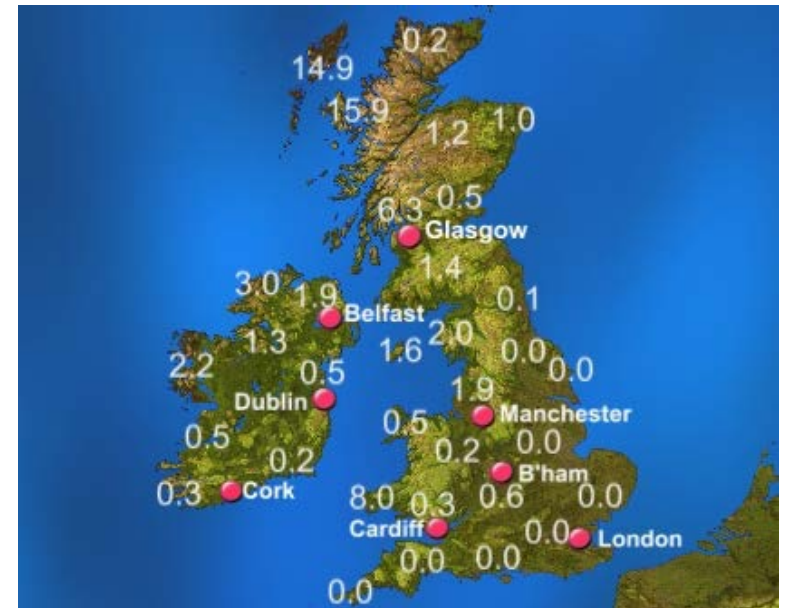
Other Financial Support

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A friend adjusted my thinking ...



Location	Snow Depth (cm)
Glasgow	6.3
Belfast	1.9
Dublin	0.5
Manchester	1.9
B'ham	0.6
Cardiff	0.3
London	0.0
Cork	0.3
Other locations	0.0, 0.1, 0.2, 0.3, 0.5, 0.6, 1.0, 1.2, 1.3, 1.4, 1.6, 2.0, 2.2, 3.0, 14.9, 15.9



... and invited me to visit Australia from Jan thru March



... and then England, April to June



... with a stop over in Thailand



Many things to attend to

- ❑ Find a person to visit
- ❑ Get documented support from your collaborator
 - A letter saying they will support your visit
 - Minimum: an office?
 - Not bad to ask for: a stipend, housing, travel funds, research support
 - My experience was pretty good
- ❑ Find a place to live (short term can be hard)
 - And go to school
- ❑ Plan your travel
 - Medical prep
 - Passports
 - Visa applications (letters of support needed here)
 - Travel arrangements
 - Local transport
 - Baggage allowances (US gets more than overseas!)
- ❑ Benefits while on leave
 - Next page

Benefits while on leave

- ❑ In 2004, UCOP had a PDF “sabbatical checklist” with a lot about benefits
- ❑ Now there’s a website
 - <https://ucnet.universityofcalifornia.edu/compensation-and-benefits/roadmaps/sabbatical.html>
 - Doesn’t seem to have the same info
- ❑ My opinion: your medical benefits are better overseas than in the USA
 - My experiences in 2017 and in 2009

University of California

Sabbatical leave is available only to certain faculty members and academic appointees based on UC Academic Personnel Policies. See your Academic Personnel Office for more information about sabbatical leave.

This checklist explains how your benefits are affected when you go on an approved sabbatical leave, which is for one year or less. If you take any leave without pay or paid leave immediately before or after your sabbatical leave, see the *Leave Without Pay or Paid Leave* checklist. You may wish to go over this information with your local Benefits Office to be sure that you have taken all necessary actions.

If you end UC employment during or after your sabbatical leave, see the *Termination of Employment* checklist and contact your Academic Personnel Office about your obligations to refund some or all of the salary you received during your sabbatical leave.

Need Help?

You can get answers to many of your benefits questions, detailed plan booklets, forms, and UC publications from the UC HR/Benefits website: atyourservice.ucop.edu.

If you can’t find the information you need on the website, or you want a printed copy of a publication, ask the Academic Personnel Office, the person in your department who handles benefits, or your local Benefits Office.

Sabbatical Leave

Benefits Checklist

While on Sabbatical Leave

When you are on an approved sabbatical leave, generally you will be eligible to continue most of your UC-sponsored benefits. The chart on pages 2 and 3 explains your benefits options in detail.

UC contributions continue for most plans. Your monthly paycheck must be large enough to cover your employee monthly costs (if any) for your health plans, premiums for employee-paid plans, and other payroll deductions. At certain locations, you must also submit an insurance continuation form.

While most faculty members want to continue their UC-sponsored benefits during sabbatical, if you choose not to, your coverage will end on the last day of the last month for which premiums or contributions are paid. If you cancel coverage when you go on sabbatical leave, when you return from leave you will *not* have a period of initial eligibility (PIE—see page 5) in which to re-enroll in UC-sponsored plans. In addition, separate plan re-enrollment restrictions may apply. See “When You Return From Sabbatical Leave” beginning on page 4 for additional information.

Moving Out of a Plan Service Area: If you continue UC-sponsored medical or dental coverage and you move during your leave, please note the following:

If you are enrolled in a health maintenance organization (HMO) or Blue

Cross PLUS and you will be out of the plan’s service area for more than two months, UC regulations allow you to transfer to a UC-sponsored medical plan that provides service in your new location. You must transfer within 31 days of the date you leave the service area. Contact your local Benefits Office.

You and/or your eligible family members may also need to select a new primary care physician(s). Contact your medical carrier.

If you are enrolled in the PMI Dental Plan and you will be out of the plan’s service area for more than two months, you may transfer to the Delta Dental Plan, which provides worldwide coverage. You must transfer within 31 days of the date you leave the PMI service area.

Establishing UCRP Service Credit: If you are on sabbatical leave at less than 100% time, you will receive prorated UCRP service credit. When you return to your regular duties at UC, for a limited time you may be able to establish (buy back) retirement service credit for any period of your sabbatical for which you did not earn full service credit. Rules for leave buybacks include minimum and maximum leave periods that can be purchased, a payment schedule, and other restrictions. Note that if you wish to buy back service credit for your leave, the sooner you begin, the less it will cost you. For more information, see *The UCRP Buyback Booklet*, which is available online (<http://atyourservice.ucop.edu>).

(continued on page 3)

My sabbatical experiences were quite positive

- ❑ **2004: Livermore and Davis, CA**
 - Cemented our lab's reputation in the aerospace industry and the national labs
 - Industrial interactions lead to starting Hill Engineering, LLC
 - Today, a going concern with 20 employees in two locations
- ❑ **2009: Sydney, Australia and Bristol, England**
 - Lead to sustained interactions with Australian scientists
 - 6 joint papers, 3 follow-on visits, one student in-residence training
 - 3 subsequent trips to Australia
 - Kids went to school in 3 countries in grade 5 (US, AUS, UK)
- ❑ **2017: Los Alamos, NM**
 - Sparked a three-way interchange between LANL, Sandia, UCD
 - 2 joint papers
- ❑ **And it has felt great to come back to Davis every time**