



SNIPPETS

Understanding, signed recently calls for the establishment of a joint S&T fund of Can \$0.5M/yr for an initial period of three years to support major co-operative research projects (CRPs) of a duration of one to three years in the areas of:

- Biotechnology-Advanced-Materials
- Communications technology

Awards to CRPs could be up to \$150K/yr and may be used to cover costs of human resources, use of major equipment, and operations in consumables, minor equipment, and travel. Preference will be given to projects that have a demonstrated industrial backing.

The fund will also support a separate programme of exchange of short-term visits (3-6 months) for students and staff researchers working in the designated areas. Such Researcher Exchange Awards (REAs) could be up to Can \$1,500/month.

Applications are invited for the first round of awards in both programmes. It is anticipated that the first round of awards will be made before the end of 1998.

How to apply: Application forms and more information for both programmes are available from the Secretariat (www.britcom.org/)

canada/mrctforms/). Applicants from the British public sector should forward their applications to the Secretariat in Ottawa. Applicants from the NRC should forward their applications to their Directors General for approval. For further information on the British Council or on the NRC, please refer to their websites at www.britcom.org/canada/ and www.nrcca.com, respectively.

Deadlines: CRPs: 21 September 1998 for receipt of the signed originals at the Secretariat in Ottawa. REAs: at any time

NOTICEBOARD

RAL Notices

RAL lectures
All lectures are held in the Pickavance Lecture Theatre at 3pm.

24 Sep
Beneath the surface of old masters pictures
Dr Ashok Roy, National Gallery,

DL Notices

DLI seminars
All seminars are held in Conference Room 1 at 2pm unless otherwise stated:

- 15 Sep
Optimisation methods for the Fujitsu parallel vector
Dr Peter Towers, Fujitsu UK
- 22 Sep
CCP14
Dr Lachlan Cranswick - DL
- 29 Sep
To be announced
Dr Karl Meerbergen, RAL
- 6 Oct
Genetic algorithm for low resolution protein structure determination
Dr Manolis Pantis, DL
Merrison Lecture Theatre 2pm

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Articles, ideas and letters are very welcome!
Articles to the Editor or Correspondent by 15th of the month.

LABNEWS

INSIDE THIS ISSUE

- | | | | | | |
|---------------------------|-----|--------------------|---|--------------------|----------|
| A very special visitor | 2 | Let there be light | 4 | Training update | 8/9 |
| The end of ISO operations | 2/3 | Charles Kilburn | 5 | Computing training | 9 |
| By royal command | 3 | Computer security | 6 | Charles Planner | 10 |
| Access to R&D | 4 | 1000th customer | 6 | Snippets | 10/11/12 |
| Arts & crafts | 4 | Ahoy there! | 7 | Noticeboard | 12 |

A very special visitor



(D198/88/08)



(D198/88/15)

(D198/88/04)



(D198/88/48)



(D198/88/48)



(D198/88/48)



A very special visitor continued...

H The Duke of Edinburgh visited Daresbury Laboratory on 31 July as part of a full programme of events in Cheshire.

The Queen and The Duke of Edinburgh's tour included the Blue Planet Aquarium and the Rockavillage power station before the royal party went to separate engagements.

The Duke of Edinburgh arrived at the SRS where he was met by Bert Westwood and local MP Mike Hall before being introduced to David Norman who led a brief tour around the facility. Liz Towns-Andrews explained how the SRS has brought greater understanding to carotans and other medical issues and then Bridget

Murphy spoke about FIATPase before Bob Cernik explained how understanding crystal structure is making chocolate taste better and persuaded the Duke of Edinburgh to try a variety of chocolate. Bridget said after the visit, "I was honoured and excited to be asked to speak to the Duke of Edinburgh. I had been to and how I'd ended up at Daresbury. He then listened to my explanation of John Walker's Nobel-prize winning work and asked very incisive questions. He was very charming and I was very impressed by his questions."

The Royal party then moved into the other hall where David Norman explained future plans for DIAMOND before Dr Westwood escorted the Duke of Edinburgh to the Daresbury Science Centre (the new name for the Central Exhibition area in B Block) which was named in an inauguration ceremony performed by him. Pupils from Daresbury CE Primary School had donated their school uniforms and taken a day out of their summer holidays to take part in the celebrations. They watched a lecture entitled 'Exploding custard' before participating in some hands-on experiments in the science centre. After the Duke of Edinburgh unveiled the plaque he spent several minutes chatting to the children before he was whisked off to Liverpool airport to join The Queen.

The end of ISO operations

On 8 April 1996 the liquid helium coolant on the Observatory (ISO) finally ran out after almost 29 months of

operations. For the RAL staff at the ISO Operations Centre near Madrid this was the signal to start thinking about packing up and coming back to RAL. The task was completed in early July; some of them arriving back during Open Days to be greeted by a full-scale

model of ISO outside their office windows. The opportunity was taken to have a last ISO group photograph, before people moved on to new projects. ISO was designed to study the faint infrared signals from astronomical

objects, ranging from planets and comets to faint galaxies at incredible distances. At the heart of ISO was a 60 cm telescope and four instruments which operated in the wavelength range 2 microns to 200 microns. The range 2 microns was cooled by superfluid helium, which slowly boiled off as the astronomical targets were studied. ISO was only designed to last 18 months, so it was a considerable achievement that all four instruments continued to work throughout the extended period of operations. RAL staff helped design

build and test one of the four instruments, the Long Wavelength Spectrometer (LWS). During the mission the Flight Spare LWS was on standby, ready to operate at liquid helium temperatures in the event of strange behaviour in LWS on the satellite (which did not occur), and was removed from the cryostat after the end of the mission to take centre-stage in the ISO display at the Open Days. For many people, this was their first opportunity to see the instrument.

Staff at RAL contributed significant software to LWS and to the ISO photometer, a German-led instrument, and contributions were also made to a third instrument, the ISO camera.

ISO was first talked about seriously at RAL in 1985 when ESA approved the mission, and some of the first Infrared Astronomical Satellite (IRAS) data, collected and processed at RAL, was dramatically sent by courier to the meeting in Holland to strengthen the case for ISO. Since then over 50 staff at RAL have been involved with the ISO project, from its design and construction, through software and operations, to the science. ESA and the various national groups have agreed to fund a 3.5 year post-operations phase.

ISO was launched on 17 November 1995, at 01:20 GMT. There was live coverage of the launch at RAL, through the ESA satellite transmission, and around 100 people arrived at RAL, from midnight onwards, and watched intently as Ariane 4 lifted off successfully from Kourou, French Guiana. The silence rather disappointed the radio reporters covering the story, who were hoping for lots of whoops and cheers for their broadcasts, but the cheering didn't happen until about 20 minutes later when ISO achieved the correct orbit. After about 8 weeks of testing and checking, ISO was ready to undertake its scientific mission. Shortly after 18 months of operations, ISO had a new experience - eclipses! The batteries had not been designed to cope with the



(098RC3796)

loss of sunlight on the solar panels for a significant period, because the mission was planned to end before that happened. However, the instruments were able to collect some data during the eclipses, and the batteries never drained to the point where there was cause for concern.

Several times during the mission there were anxious moments. One dramatic example was in May 1996 when the first workshop to discuss results from ISO was taking place at ESTEC, Holland. On the second day of the meeting, the astronomers noted a sudden lack of ISO staff at their presentations. It transpired that a 'limb' had been violated during a manoeuvre and the satellite had correctly slewed to the 'safe' position

though in this case, in its haste to be 'safe', it had slewed across the incredibly bright Earth limb, which it should never do. The instruments were quickly switched off and fortunately suffered no ill-effects. In November 1997 all the instruments on ISO were affected by a severe solar flare, but recovered fairly quickly.

Over 26,000 observations were made during the mission by around 500 astronomers from 19 countries. Their rights to their data will expire by spring 1999, at which point any astronomer will be able to access the data in the archive. There have already been many results from ISO published both in scientific journals and at conferences. The Astronomy and Astrophysics journal set aside a special

By royal command



(098RC3069)

PRD's Andrew Melita rubbed shoulders with the rich and famous recently during a reception at Buckingham Palace. The reception was given by The Queen and Prince Philip to recognise the achievements of young adults from throughout the UK who have excelled in a particular field, from professional to voluntary, academic to sporting, or in overcoming adverse personal circumstances or handicap.

Andrew, 28, who had been recommended by his supervisor Bill Haynes, was very surprised when he received the invitation but said

issue for ISO results, and this contained 91 letters. There has also been good coverage in the media, due largely to the assistance of Press and PR. ISO results have been well reported in the broadsheets and on radio, and I presented ISO results in two BBC Sky at Night programmes, hosted by Patrick Moore. The final press briefing on ISO was held on 7 April 1998, coincidentally one day before the helium coolant ran out.

It is still too early to objectively assess the impact of ISO. LWS has made a very significant contribution with its detection of water in a wide range of astronomical objects, and the measurement of deuterium in the giant planets in our Solar System (which is of critical importance to cosmological models). The ISO photometer and camera have made important contributions to the understanding of the way galaxies interact, collide and merge. There have also been improvements in the understanding of the conditions in the dust around stars, including the rings around stars where planets either failed to form, or may form in the future.

A small number of RAL staff working on ISO will remain to assist astronomers in the UK and abroad, but for most of the people who worked on ISO over the years, it only remains to say "thanks for making it such an outstanding success".

Helen Walker

he was delighted to attend. The afternoon was spent chatting to the other guests who included pop groups Eternal and All Saints, as well as Zoe Ball and Bryan Giggs. Other (less famous) guests included charity fund raisers, chirpologists, fire fighters, lecturers, cacti and film directors. He also got to talk briefly to The Queen.

Andrew is currently working on secondment at DESY on the HI project.

Access to R&D

Prof Keith Jeffrey is the UK representative on a Working Group developing the ERGO (European Research Gateway Online) project, a WWW-based information system giving access to R&D data all over Europe.

Users of the system can find new technologies, conduct experts/consultants or overview quality and quantity of R&D support by region, country or subject area. Simply, ERGO provides a standardised catalogue (like a library card catalogue) with an entry for each R&D project in all European countries. Currently a pilot project based on a centralised catalogue database is underway to test the technical, administrative and management principles. It is expected that the full implementation can start under Framework 5. In the current pilot only the catalogue is provided, hosted on the EC's CORDIS service, and the data concerns only R&D projects. After evaluation, the aim is to provide

automated access to the relevant detailed records in host databases in all European countries. The UK is participating very actively in the project both at the technical design level and in providing data from the research councils.

The pilot ERGO project will only have one central node within the catalogue. The idea is to test, input, update and query procedures using a strict evaluation criteria to measure of the value of the system. Within the UK, and with assistance from DIT-QST, three research councils are providing data for the pilot project to RAL, where it is transformed into the required form.

The full ERGO architecture envisages each region or Member State having a computer of all known current European R&D projects. The catalogue computer accepts interactive queries from end-users and the records are then used to initiate a full search for specific projects, people or whatever on the hundreds of databases of R&D information around Europe.

The results are then returned to the regional computer where they are integrated before electronic presentation to the end-user.

Users will range from innovators in SMEs and larger industries, to researchers looking for partners, and policy makers or watchers in government and elsewhere following trends and making policy who all need comprehensive information on R&D throughout Europe. The UK research councils fund a considerable amount of R&D, much of which has or could have commercial relevance.

ERGO is expected to play a key role in supporting greater transparency access and among Member States and in providing a basis for the improved co-ordination and coherence of national and European programmes throughout the Union. An ambitious aim, but one well worth the effort.

The pilot system, with attendant documentation, can be accessed at the URL <http://www.cordis.lu/ergo>

Arts and Crafts 1998

I hope that this year's arts and crafts exhibition will take place in November or early December, which gives us all about 4 months to prepare. I expect to use CR12 and 13, R68 at RAL again but first I need to assess the amount of interest, size and type of the exhibits.

I would be very grateful for any offers of help and, of course, contributions to the exhibitor's Match out on the internal web pages for a series of posters and articles advertising the event (which is also open to contributions from Daresbury staff this year, and future years, if we can sort out the logistics).

So, watch this space - I hope that I will soon be counting the number of responses and confirming the venue.

David Farrell
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<d.farrell@rl.ac.uk>

Let there be light!



(D128/3001)

This photograph shows the first light from the new SD beamline on the SRS. The beamline is being built through an EPSRC grant awarded to Queen's University Belfast, Listerer University and DL. The aim is to develop an advanced vacuum ultraviolet (VUV) facility providing intense sunlight breaks down the beamline will be particularly useful to investigate the properties of novel magnetic materials and to study the behaviour of atoms and molecules.

Magnetic materials are important in high density recording media, sensors and switches. The new beamline will be used to investigate the giant magneto resistance in some magnetic materials.

Studying the interaction of VUV radiation with atoms and molecules provides information to help us model the Earth's upper atmosphere where intense sunlight breaks down the CFCs producing reactive chlorine radicals. The radicals contribute to the depletion of the polar ozone layer.

A day in the life of Charles Kilburn

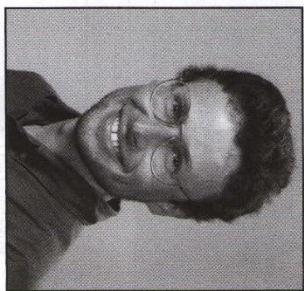
(My day with the Rain Man!)

I have often sat in my office looking out of the window at passing RAL scientists wondering what they all do and what makes them tick. So when I had the opportunity to do a 'day in the life of', I naturally chose a scientist.

On a wet morning in June I accompanied Dr Charles (Charlie) Kilburn of the Radio Communications Research Unit (RCRU) on a visit to the Chilbolton Observatory. Chilbolton is in the country/side of Hampshire, its special feature is a 25 metre radar dish. The radar, which was built in the sixties, is used by RCU to look at the interference caused by different types of weather and how it affects radio transmission. Charlie's specific interest is radar meteorology and he also acts as a liaison for the university users at Chilbolton.

On the way down to Chilbolton Charlie tried to explain to me in lay terms the bi-static experiment that we were hoping to set up that day. The aim of the experiment was to measure the wind movement between two points using the rain as a medium. The two points would be the radar and the equipment that we were going to set up. Once a good site is found the equipment is left in situ for a period of time in order to get a good set of readings these would then help to determine how the weather develops and behaves.

The Chilbolton site is much smaller than RAL and DL, with about half a dozen people based in one main building at the foot of the radar dish. We went inside and Charlie showed me around the workshop, the main reception and the data room. As we walked round everyone was pleased to see Charlie but curious to know why I was following him around like a lost sheep! The place had a very localised feel to it, everyone knew where everyone else was - a far cry from the university-style campus of RAL, where you see lots of different faces every day.



(98RC4112)

Charlie introduced me to Darcy Ladd who 'steers' the radar at Chilbolton and Charlie spoke to him about the experiment that we were going to run and checked that he would be around to aim the radar in our direction to test the equipment. Then it was time for a quick cup of tea in the staff room before we set about gathering all the equipment needed for the experiment. I must admit that I had no idea that we would need so much gear. In my naivety I had envisaged taking an arnel or two and a small monitor, and when Charlie said we would be taking the trailer I had expected one like the type you use for extra luggage when you go on holiday, not one the size of a hot dog stand!

We hooked the site landrover up to the trailer full of hi-tech equipment and set off for Withdean, a village on the high ground and an ideal spot to set up the equipment with good line of sight with the radar. Charlie left it until we were well on our way to Withdean to tell me that we were going to set up the experiment in someone's back garden! When we found the house down a small country lane we were greeted by Mr Goodyear, the friendly elderly owner and I immediately became concerned about whether he was aware of the size of the equipment that we would be leaving it in his garden for some time. However the back garden turned out to be bigger than your average back yard complete with a huge vegetable patch and a Shetland pony. Mrs Goodyear told us that they could see the radar from their garden with the naked eye on a good day and we too could just about see it on the horizon.

Charlie spent the next hour or so moving the trailer into the best position to site the equipment so that it wouldn't cause obstruction to the Goodyears but would still receive a good signal from the radar. It appeared to be quite a frustrating process getting the right spot, but it had to be done.

Charlie kept in radio contact with Darcy at 'base camp' to ensure that the signal between the radar and equipment was a good one.

After lunch it was back to Chilbolton to collect even more equipment for the trailer and while we were there I was offered the opportunity of a closer look at the radar, so I donned a safety helmet and we entered through a small door at the base of the dish. Once inside it reminded me of the interior of a ship with its narrow stairs, engine rooms and an overwhelming smell of oil and grease. Above our heads I could hear the engines spring into life as the radar was being moved around. Once we were back inside the main building via an underground tunnel! Charlie explained that at that particular moment Chilbolton was experiencing a first. For the first time Reading University were remotely controlling the radar and collecting data... and I was there to witness it.

Later we returned to Mr & Mrs Goodyear's to make a few final adjustments to the equipment before heading back to Oxfordshire and back to the rain!

I really enjoyed my day with Charlie and I hope he got some good data from our visit.

Tracy Wilkinson

Computer and network security

A computer and network security group (CNSG) has recently been set up to agree CLRC policy on such matters and to oversee the implementation of agreed security measures. The members are: Please consult your departmental

DEPT	REPRESENTATIVE	DEPUTY
Chairman	Trevor Daniels	Paul Kummer
Secretary	Neil Calton	Graham Robinson
SSD	Dave Terrett	Dave Rawlinson
ASD	Mike Courtthold	Mike Palmer
DCI	Paul Kummer	Tim Kidd
ADM	Ken Hartley	Richard Owen
SRD	Mark Enderby	Chris Dean
ISIS	Kevin Knowles	Bob Mannix
CLF	Chris Reason	
PPD	Barry Saunders (Interim)	
Tech	Debbie Greenfield	Tony Lucas/ Nicky Watkins

Experts: Andrew Sansum, Tim Kidd, Graham Robinson

representative if you wish to raise issues in this area. A shared filestore has been set up where CNSG formal papers (with access restricted to CNSG members)

Video conferencing at RAL gets its 1000th customer!

A recent Library Management meeting became the 1000th video conference to be booked since the service started in 1994. Since then it has been calculated that at least 1750 journeys based on the smallest number of people at one site travelling, many up and down the dreaded M6, have been avoided by using the facility. Since its tentative beginnings the demand for the video conferencing service has grown and so has that the number of rooms and complexity of equipment involved. There are now two permanent rooms: Room 1.23, R71 comfortably holding 12 attendees and the new fully air-conditioned room in R18 holding up to 7 people. In addition, the Atlas Colloquium is used for larger meetings and seminars, and the Pickavance Lecture Theatre is utilised for seminars and staff talks. A third room, capable of holding approximately 24 and with a permanent video-conferencing facility will hopefully become available in the near future. The majority of video conferences are with Daresbury Laboratory but meetings have been held with sites all over the World, significantly reducing travelling time and other costs for CCLRC staff. A recent video conference was conducted between RAL, KEK in Japan and the University of Melbourne, Australia, saving lots of time and money! All video conferencing uses ISDN connection, since the closure of the Super Janet ATM pilot system in February this year. Anyone interested in finding out more about the service or making a booking should contact Andy Wells or New Knowles, preferably via email <videocconf@ac.uk> or on extension 5733. The web pages at <http://admin-www.atac.uk/admin/services/videocconf/> provide comprehensive information on the service, how to book a meeting and get the most from it.

Ahoy there!

A clash of rates with Open Days meant that RAL sailing club's entry in this year's Civil Service InterDepartmental Offshore Racing tournament (IDOR) had to call on a number of retirees and family members to make up the numbers. Nevertheless the two 'sketchon crews' each brought back a trophy. One crew member, Nigel Bealing wrote a diary of the week's events...



Nigel (left) takes a turn at the tiller

On Sunday 28 June a mixture of keen novices and experienced seafarers converged on Port Solent for IDOR. Ten yachts were entered including some from HSE, The Department of Health and Social Security, and two crews from RAL. I fell into the novice category, having done some windsurfing and dinghy sailing before jumping at the opportunity to represent CLRC at IDOR. We were introduced to the skippers, John Magraw and Roger Walker and I was allocated to RAL2. That evening, over a hot curry and a cold beer, we discussed the week's itinerary and the tactics (basically whatever you do don't fall in!) for racing. Monday practice, Tuesday racing in the Solent, Wednesday Chertbury, Thursday back to Cowes and Friday around Port Solent. Monday's trip to Cowes was designed to transform a crew of confused amateurs into a 'slightly' oiled machine. Progress was slow but accelerated when the skipper realised that most of the crew responded better to commands like "pull the blue one" than using the proper seafaring terms. By the end of the first day we could tack, gybe, change the sail and we completed the course for the practice race. Feeling suitably pleased with ourselves we were invited to Cowes Yacht Club for dinner where Rutherford1 was presented with the prestigious wooden spoon award, for accidentally completing the practice course twice instead of the required one!

Thursday was race day. The three inshore races provided an excellent day's sailing although we didn't win any. I don't think we even came close but as the grey cloud disappeared the word went round that the trip to France was on. Apart from having the evening spoiled by England being knocked out of the World Cup, a good day was had by all. Tomorrow we were off to France!

"Dover, Wight, Portland north-westerly, force 3 occasionally 4" - I was starting to get used to the alarm call. We were out of the harbour by 6am, and racing at 7am. West out of the Solent, turn left (sorry, port) at the Needles and we were off with our spinnakers flying. The wind picked up to a force five providing us with an exhilarating roller-coaster ride. I remembered those wise words of the skipper: "...sandwiches and chocolate bars are all we need for food" as at this point it was now impossible to even get close to the galley let alone cook. Eight hours later we arrived in Chertbury and to our surprise and delight found ourselves in 5th position. When RAL1 arrived several hours later with the spinnaker wrapped around the forestay we knew that their journey had been even more exciting and eventful than ours. A couple of hours of aerial acrobatics from the Skipper in a Bosuns chair made everything ship shape again though.

After a well earned meal and a good night's sleep I was ready to face the long trip back. However the elements had turned against us - Wight, north force 5 occasionally 6 was predicted. Even with my basic understanding I could figure out that if the wind is coming from the north and that is where you want to go you have a problem, so your destination was changed to Poole. When the wind picked up further some skippers decided to stay and sit out the storm and only a brave few headed out to sea. We decided to wait for the first hourly report back from the trail blazers before making our decision. The radio crackled into life - "It's wet, it's bumpy, it's exhilarating, two reefs in the sail and motor sailing but we're making good progress". This was the news we were waiting for and we finally set off at 10am. Now, at the start of the week I

thought a 36-foot yacht was big but your definition of 'big' changes a bit when you can't see the horizon for the swell. We pointed the boat at Poole and for the next eleven hours we switched between being ballast and the tough job of fighting the tiller to keep the compass bearing steady which was physically and mentally exhausting. As the coast of England appeared darkness fell. At the entrance to Poole Harbour we started the elaborate game of 'eye-spy' to follow the safe channel into the town quay. The channel was marked with lights that flashed with different periods and sequences so as the navigator shouted to let us know what to look out for, we tried to spot the correct light against a skyline already full of street, house and car lights. Finally we tied up at the quay at about half past midnight, where we were greeted by the rather dishevelled and tired looking crew of Rutherford1 (we probably looked much worse though), after making the yacht ship shape and having the first real food since breakfast it was around 2am.

"It's 5:30 and time for the shipping forecast..." - we were off again. Friday's conditions were ideal, a fair breeze and the tides in our favour as we headed up through the Solent to Portsmouth to return the boat on time.

After all the rainwells we went our separate ways. Tired but very happy, I drove home; IDOR had been a great experience, I had met some great people and gained a sense of achievement about being part of the RAL2 team. I had learned a lot of new skills - how to barter successfully with sea sickness pills, how to pee in a bucket while kneeling down, etc... but one thing still puzzles me, whoever said that a yacht was a luxury item?

Nigel Bealing

Training update

Investors in People

Review on a recent IIP Internal Assessor Workshop
 An important part of getting and keeping IIP is the evidence which proves to the IIP assessors that we do what we say we do. Before attending the recent workshop I was concerned that what little evidence was around would be difficult to obtain, even if it could be recognised.

However, it rapidly became obvious that we are sitting on a gold mine with a rich vein of evidence, mainly because we do 'do-what-we-say-we-do'. Moreover, this is a vein that will be workable, especially given the tools that we picked-up at the workshop. Of course some strategy is required, just to break-ground, before we can even begin to start mining.

John Tomkinson

As you can see, your IIP departmental project managers are working hard at understanding the framework of the standard and applying it to your department. IIP is all about good management practice - you may be surprised to know that correct use of the APR system - ensuring you have your objectives already set and your training and development needs reviewed - is all part of the IIP standard. You may have had some reminders regarding the line manager's role. If this is the case, then again your working life is already being influenced by IIP.

It will not be a visible structure imposed on you but in the most part, more of an invisible one.

Diane Tunnicliffe

Forthcoming courses

DIFFERENT PERSPECTIVES ON STRESS MANAGEMENT - THE INDIVIDUAL PERSPECTIVE
 This course is proving to be very popular and the September dates are

already fully booked. Another course will be booked for October and if anyone is interested in attending they should give their name to Kim Talbot as soon as possible. Further courses will be organised on demand.

SELECTION AND PROMOTION INTERVIEWING (RAL), 7-8 SEPT - A mandatory course for all those involved in interviewing at all levels.

PRE-RETIREMENT (RAL), 11-14 SEPT - To help you to prepare for retirement so that you can enjoy it to the full - courses are held at Bourneouth.

CUSTOMER FOCUS (RAL), 14 SEPT - For all staff who interact with customers (internal and external). The aim is to introduce participants to the concept of customer care to improve the quality of service provided.

PRESENTATION SKILLS (RAL), 16-17 SEPT - This two day course is designed to help staff to be more effective in delivering presentations and communicating the importance of their work.

SAFETY MANAGEMENT (DL), 16-17 SEPT - This is one of a series of courses for Managers, Supervisors and Chargehands at Daresbury which aims to provide staff with an understanding of their safety roles and responsibilities both for the staff they control and for any physical area they are responsible for.

APPRAISAL TRAINING FOR NEW STARTERS (DL), 17-18 SEP

APPRAISAL TRAINING (RAL), 21-22 SEPT - If you have started to work at the Lab within the last six months and will need to complete an APR next year and you do not receive an invitation to attend this course by the end of August please contact Kim Talbot.

RECRUITMENT AND SELECTION UP/DATE (RAL), 22 SEPT - This course is for anyone who has attended a selection and interview course and needs a refresher. It includes up-to-date information on employment law.

FINANCE FOR NON FINANCIAL STAFF (DL), 22 SEPT - A one day course designed to guide staff, with little or no financial knowledge, through finance procedures simply and clearly as they relate to the organisation.

SELECTION AND RECRUITMENT INTERVIEWING (DL), 22-23 SEPT - A JTS course with opportunities to practise interviewing skills in mock interviews. Mandatory for anyone involved in interviewing.

SENIOR MEDIA COURSE (CLRC), 24-25 SEPT - This course is for senior managers who have responsibility for giving television interviews. The course is held at the Central Television Studios in Abingdon.

FINANCE FOR NON FINANCIAL STAFF (RAL), 24 SEPT - A one day course designed to guide staff, with little or no financial knowledge, through finance procedures simply and clearly as they relate to the organisation.

DIFFERENT PERSPECTIVES ON STRESS MANAGEMENT - MANAGER'S PERSPECTIVE (DL), 28 SEPT - By the end of the workshop participants will be able to:

- recognise causes and signs of stress,
- understand the relationship between stress and job performance,
- cope with and manage stress, involved, and
- know when to ask for professional advice.

DIFFERENT PERSPECTIVES ON STRESS MANAGEMENT - THE INDIVIDUAL PERSPECTIVE (DL), 29 SEPT - The course will enable staff to become more effective in managing personal stress by:

- giving participants greater understanding of signs of stress in themselves and others,
- exploring the causes of stress,
- considering strategies for alleviating stress or managing its effects.

Targeting computing training

RAL Computing Training recognises that in many cases a general course, aimed at those at a particular skill level eg introductory, intermediate and advanced) in Excel, Access, WORD or a programming language is the most appropriate way of training staff. Nevertheless, a targeted course is sometimes a more effective way of training and enables staff to take the maximum benefit from the time spent on a course.

To enable staff to attend a course which more directly addresses their work needs and objectives, RAL Computing Training has devised a number of courses:-

EXCEL for budget holders including formulae, functions and 'what if' scenarios

EXCEL productivity including speed tips and short cuts

WORD for report writers

WORD for scientific papers including equation editors, drawing and flowcharts

WORD for secretaries and administrators

WORD for the self-taught - improve your knowledge and productivity

If you feel there are other computing courses that could be designed to improve the knowledge and performance of staff then please let

- practising some stress reduction techniques, and
- constructing an action plan for reducing personal stress.

APPRAISAL TRAINING FOR SINGLE STATUS (RAL), 29-30 SEPT, 5, 6, 7, 12 AND 13 OCT 1998

- These one day courses are for all industrialists who have accepted single status. The Training Sections will be contacting you if you have opted for single status.

RAL Computing Training

RAL Computing Training know, Line Managers may feel that their staff would benefit from training covering the specific needs of their group and courses can be tailored to achieve this.

Outlook 98

There are now three courses in place to provide the necessary training in Microsoft Outlook:

OUTLOOK FOR BEGINNERS - This half day course covers the Outlook environment, sending and receiving mail and how to manage your email.

CONVERTING TO OUTLOOK - An intensive half day course which aims to familiarise users with the Outlook desktop and looks at the key differences between Exchange and Outlook. It also looks at some of the more advanced email functionality.

GOING FURTHER WITH OUTLOOK - This half day course for existing users looks at some advanced email techniques and explores the diary and calendar functions of the applications.

Further information on these courses can be found on the noticeboard or from the Training office.	
DL	Hazel Dale ext 3600
RAL	Miriam Waters ext 5361 Diane Tunnicliffe ext 5892

Full details can be found on the Web pages http://admin-www.rl.ac.uk/admin/training/ral_computing/

Microsoft Project

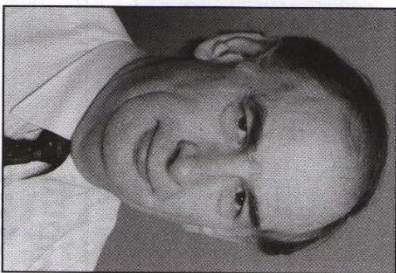
RAL Computing Training has recently run a M/S Project course and there are plans to run a further one. If you are interested please get in touch with them for dates and more information.

Future dates

SEPTEMBER	
14-18	NT4 core technology
14	Intermediate Word
15	Intermediate Excel
16	Going further with NT4
21	Advanced Word
22	Advanced Excel
23	HTML
24	Outlook 98 (half day course)
25	Outlook 98 (half day course)
28	Going further with Access
29	Outlook 98 (half day course)
30	Outlook 98 (half day course)
OCTOBER	
1	NT4 for new users
5	Word for new users
6	Excel for new users
7	PowerPoint for new users
8	Outlook 98 (half day course)
9	Outlook 98 (half day course)
12	QuarkXpress

Susan Hilton Ext. 6154
 susan.hilton@rl.ac.uk

Charles Planner 1938-1998



Charles Planner, who joined the Rutherford Laboratory in 1961, died on 14 August after a two year fight against cancer. Charles started his career in accelerators on the 15 MeV Linac Injector for the 7 GeV Proton Synchrotron Nimrod, where he developed his expertise in radiofrequency (rf) system design and beam theory. During his career he contributed to the design of many accelerators, including the HERA machine at DESY, the ESRF at Grenoble, the TRUMF Kaon Factory design and the European Spallation Source study.

At Rutherford Laboratory he was responsible for the rf system of the 70 MeV proton linac when it was being built as a new injector for Nimrod. It is a tribute to its robust design that the repetition rate of this linac could be increased from 1 Hz to 50 Hz, with little change, when it was used as the ISIS injector. On ISIS he was responsible for the injection system, the elegant rf shields in the ring magnets, the optics of the extracted proton beam line and the development of new extraction kicker magnets. His novel approach to the manufacture of the large (4x10 cms) but very thin (0.25mm) foils needed for beam injection into the ISIS ring has been a major success and typifies his work. For the last few years he has been group leader of the ISIS Linac and Radiofrequency Quadrupole linac (RFQ) Group concentrating on increasing the performance of the ISIS linac. His innovative and determined approach has led to developments in RFQ design codes and to the development of a beam matching system between the ISIS ion source and the RFQ.

Among Charles's recreational activities was a keen interest in game fishing and fly fishing. He brought many innovative methods to his fly fishing which he passed onto the friends and colleagues who shared his interest with him. You may remember a report on Charles's success in the CSCC area fly fishing competition, when his precise methods and determination resulted in a convincing win for him and a place representing RAL in the national final at Rutland.

Charles's participation at work and in recreational activities will be sadly missed by his many friends and colleagues whose sympathies go out to his wife Ruth, and children, Andrew and Imogen.

SNIPPETS

SOHO contacted

Last month we reported that scientists had lost contact with the spacecraft SOHO. The good news is that contact has now been made. SOHO telemetry was restored on 8 August and several frames of data were received via the Deep Space Network station in Australia. Until the on-board batteries become fully charged only short bursts of communication are possible, but work continues to assess the status of the spacecraft. More next month.

Cosmology weekend

A weekend conference on cosmology for non-cosmologists will take place at Herstmonceux Castle and Observatory 16-18 October. Speakers include astronomers, writers, artists and cosmologists. More information is available from Press and PR at RAL.

Earthwatch

Earthwatch Institute is an international science and education charity which supports environmental and cultural research, through individual membership, corporate and statutory funding. The overall mission of Earthwatch is to promote sustainable conservation of our natural resources and cultural heritage by supporting scientific field research and environmental education programmes. The Earthwatch Volunteer Programme provides an opportunity for the general public to work directly in the field with scientist learning about conservation issues and understanding how everyone can help to safeguard the future of the planet. Projects range from botanical inventories of Amazonian rainforests to tracking Black Rhino in southern Africa.

Tel: (01865) 311600 Fax: (01865) 311383
 email: info@uk.earthwatch.org
 Web site: www.uk.earthwatch.org

New IOP director

The Institute of Physics has announced the appointment of Mr Peter Cooper as director responsible for the Institute's work relating to education, public affairs, research, science policy and scientific conferences. He is currently deputy executive secretary of the Royal Society and will take up his new post in November this year.

SNIPPETS

Appointments
 Peter Mandelson, Secretary of State for Trade and Industry, recently announced details of the responsibilities of the new ministerial team at the DTI. John Battle MP becomes Minister of State responsible for energy, industry, environment issues, innovation, and sponsorship of the oil and gas industries; whilst Lord Sainsbury becomes the Minister for Science, responsible for the Office of Science and Technology, the research councils and space matters.

Mr Mandelson also announced a new Director General of Research Councils. Dr John Taylor, OBE FRS, FRS will succeed Sir John Cadogan on 1 January next year. Dr Taylor, 55, is currently director of Hewlett-Packard Laboratories, Europe and director of Peripherals, Appliances and Consumer Systems Research Centre - one of the three global research centres in HP Laboratories. He is a visiting Professor at Imperial College and a Visiting Industrial Professor at the University of Bristol. He is also a Fellow of the IEE, BCS and the Royal Society of Arts.

New director

Richard Holdaway has been appointed to succeed Eric Dunford as Director, Space Science. He took up his new post on 1 September. Congratulations Richard.

BBSRC council

New members to the BBSRC Council are: Mike Calvert of CWS Agriculture; Linda Partridge, Weldon professor of biometry at University College London; Peter Schroeder, R&D director of Nestlé and John Graham, secretary and head of the Agriculture, Environment and Fisheries Department at the Scottish Office. The new appointees replace Noreen Murray, Keith Humphreys, Ed Dart and Murr Russell.

Single status for CCLRC

You may be aware from the series of circulars and other information on the subject, that negotiations with the Industrial, Trade Union Side ended without their recommendation

to accept the terms of the offer to achieve single status. As a result, in the knowledge that there was indeed a significant number of Industrial staff who wished nonetheless to move to Non-Industrial conditions of service, management offered the terms on an individual basis.

On the basis of this offer, almost 70% of the current Industrial workforce has opted to move to Non-Industrial conditions. This news heralds a significant move towards building one unified and skilled workforce - it will help contribute towards sustaining our existing programmes and successfully competing for new projects, showing that we have a modern organisation able to meet the challenges of the future.

If you have any questions about the single status offer, you are most welcome to contact Karen Lambourne in Personnel at RAL on ext. 5354 or e-mail <klambourne@ral.ac.uk>

CERN Courier moves

The CERN Courier, the highly respected magazine for the particle physics community across the globe, will be celebrating its 40th birthday soon. This comes at the same time as its move to the Institute of Physics, whose publishing company will be taking over its management, development and publication.

Editorial control will remain with CERN under the current editor, Gordon Fraser, but plans are already afoot to include a new design, and it will be marketed to a wider international audience. Its current circulation figures are 20,000 and 7,000 for the English and French editions respectively.

Cool award winner

Richard Down, a cryogenic technician who works on Isis, has been presented with a design award by the Institute of Engineering Design for a project he completed while studying for an HND in Mechanical Engineering at Newbury College. The Institute awards around ten of these awards each year to students who each also receives a crystal goblet.

"I'd like to thank all my colleagues at RAL and the lecturers at Newbury College for their support during the three year course". Richard commented after the award ceremony. He passed his course last year with flying colours - getting distinctions in 10 of the 16 subjects.

Richard's project was to design a cryogenic centrefuck for use at Isis which could reach temperatures as low as -271 °C and would be easily and cheaply maintained and repaired.



Richard Down (left) receiving his award and crystal goblet from John Hoyle of the Institute of Engineering Design (IERDC 3541)

New joint Science and Technology Fund established between the National Research Council of Canada and The British Council

The National Research Council of Canada (NRC) and the British Council have recently agreed to establish a joint Science and Technology Fund to (1) promote collaborative research between the NRC and British public sector (university and research council) laboratories in strategic areas of mutual interest, and (2) facilitate the exchange of students and staff working in those areas.

The agreement forms part of a programme of activities shared by NEW accents, a new co-operative response to the Joint Declaration of Prime Ministers Chretien and Blair in Denver last year. A Memorandum of