INCOSE UK Newsletter

President's Corner

In common with many of our readers, I'm sure, the 'day job' has been minimising my time for INCOSE work and the study of Systems Engineering recently. So – no new insights or recommended reading material this issue. Instead, some 'whither UK Systems Engineering?' speculation.

I was delighted to announce the formation of the UK Advisory Board (UKAB) to the UK Chapter of INCOSE at the Autumn Assembly in November. The founder members are BAE Systems, Loughborough University, University College London and Thales.

BAE Systems were the first to 'sign up' and the ceremony was recorded for posterity in the picture below, with yours truly shaking the hand of Samantha Brown, BAE Systems UKAB representative.

One of the principal ideas behind the UKAB is the improvement in the practice of SE in 'UK plc', and to this end we are encouraging the formation of Working Groups to address issues of concern to the UK's major employers. An initial meeting of the UKAB before Christmas revealed that the biggest issue seems to be "What constitutes a good systems engineer, and why can't we find, recruit and retain sufficient to meet our needs?" There are subsidiary questions about the perceived value of systems engineering, both to the business case and to the junior engineer in terms of a career path. I think we all look forward to some recommendations for the future from the WG's! Other participants are welcome from outside the UKAB members: if you would like to contribute to the debate, please contact Doug Cowper (d.cowper@ucl.ac.uk)

Over the last two or three years, there have been a small number of papers published in the INCOSE literature on the topic of 'System of Systems'. All sorts of questions have been raised about the management of interfaces, the partitioning of risk between customer and prime contractor, and the sharing of risk (and trade against sharing of profit) between partners in prime contracting consortia, or between nationalities and workshare in a single company. I ask myself here – what constitutes 'good' systems engineering in this context, and who is qualified to judge? A huge decision looms in the UK, which may well be resolved by the time you read this – the award of the contract for the future Aircraft Carrier for the Royal Navy. Ironically, the two major employers in the UKAB – BAE Systems and Thales – go head to head on this one.

But what factors get taken into account? The quality of the programme plans and the risk assessment? Teaming arrangements versus subcontract open competition? Architecture flexibility and multi-role capability analysis? Careful trade-off of spend profile versus long-term logistic support? And whatever the answer, is it backed up by the bidder's track record?

David Mulholland of Jane's Defence Weekly argues that it is none of these. Instead, he suggests that the decision rests on political alignment – is UK part of a 'United States of Europe', or is it part of a Special Relationship' with the USA? One is tempted to speculate that some decisions are 'too big' for systems engineering to influence. But Derek Hitchins has, in the past and in these pages, suggested that this (geopolitical interaction) is just a higher order of systems engineering that needs

to be understood, modelled and mastered in order to get it right. I personally don't feel qualified to offer an opinion about that! But whatever the outcome, there are going to be some major 'lessons learned', both from the decision-making process and the eventual programme – and I am sincerely hoping that these lessons will be shared by the protagonists and the MoD for the benefit of the systems engineering practice of UK plc.

Paul Davies

Our Sponsors

INCOSEUK gratefully acknowledges the commitment of its newly created corporate members, currently these include BAe Systems, UCL, Loughborough University and Thales.

BAE SYSTEMS

UCL SYSTEMS ENGINEERING

Loughborough University

THALES

Request for Participation

Brass Bullet Ltd. has teamed with the Engineering Division at The Pennsylvania State University in an international study of requirements engineering practices.

The first phase was conducted in Spring of 2002 and focused on the high-tech corridor in Southern Pennsylvania, New Jersey and Delaware in the US. Over 200 participants representing such companies as Lockheed Martin, Boeing, Unisys, Motorola, Vanguard Investments and Merck responded to the call. Some very interesting findings came to light, including the under-utilization of formal approaches, the remarkable popularity of the Waterfall lifecycle model, and the perception that end-product quality was unaffected by ad hoc approaches.

The second phase of the study will focus on the United Kingdom. We are interested in current practices in requirements engineering and will compare the results of this phase with those of the US and then publish the results both here in the UK and in the US. We invite working professionals to participate by going to:

`www.brass-bullet.co.uk/softreqs.shtml`

Dr. Colin J. Neill
Professor in Charge, Software Engineering
Penn State Great Valley
Malvern, PA 19355

After Dinner @ the Autumn Assembly 2002

For those of you who did not manage to get along to the Autumn Assembly 2002, you missed out on an entertaining talk on Land Speed Records culminating in the experiences of Jeremy Bliss' involvement in the design of the world's first supersonic car!

On 15th October 1997, ThrustSSC, driven by Andy Green, travelled the measured mile twice with an average speed of 763.035 m.p.h or Mach 1.03, taking the world land speed record. Jeremy Bliss was part of the team that made this challenge a reality and was responsible for the design of the vehicle's systems, including the active suspension required to keep the car from breaking the air speed record.

Jeremy outlined some new British schemes including a steam driven car to take the Steam Land Speed Record. This project is the brainchild of Glynne Bowsher (a colleague of Jeremy's from ThrustSSC) and uses a 0.33 MW boiler! Jeremy believes it will probably have "its own rain cloud following it". Charles Burnett 3rd, who aims to achieve 200mph, will drive this car.

The second scheme, which Jeremy is involved with, is to break the Electric Speed Record. The Devon based project (WEST - Western Electrical Sustainable Transport) uses a carbon fibre chassis first time in land record history, 4x300kW electric motors (one driving

each wheel) and 1.2 tonnes of lead acid batteries. This vehicle is to be driven by the grandson of Malcolm Campbell and aims to achieve 320mph.

Both schemes are looking for sponsors – so if you feel a little flushed and would like to support these projects, I am sure they would be more than happy to relieve you of your cash. Bear in mind that £2.5m went through the books of ThrustSSC, which doesn't include the in kind support, for example, the transportation of all the equipment to Black Rock, USA, was gifted to the team.

INCOSE UK would like to thank Jeremy for taking the time to provide us with an insight into the world of Land Speed Records.

Douglas Cowper
University College London
Centre for Systems Engineering

INCOSE UK Corporate Advisory Board (UKAB)

One of Paul Davis' objectives as President of the UK chapter is to engage more with the employers of INCOSE UK members. To this end a UK Advisory Board (UKAB) has been set up as a vehicle to involve UK industry, government and academia. The aim of the board is to provide INCOSE with the Systems Engineering issues that face UK plc, to obtain resources to tackle these issues and to demonstrate how INCOSE can add value. This is a separate, but similar, organisation to the INCOSE international Corporate Advisory Board (CAB), which is rather more aimed at international harmonisation.

The UKAB was launched in October 2002 with THALES, BAE SYSTEMS, University College London (UCL), and Loughborough University being the first members to join. There are a number of other organisations expressing strong interest.

The first strategy meeting of the UKAB was held on 20th November 2002 at UCL. This meeting explored some of the Systems Engineering issues facing organisations and identified that "Our projects in the UK suffer from a lack of good quality systems engineering throughout the whole supply chain". The meeting went on to look at why there are not more Systems Engineers and came up with four key areas of interest:

1   SE Undergraduate Module - Set up a working group to define a syllabus for a systems engineering undergraduate module, which can be taught in all undergraduate engineering courses. This working group will define a syllabus and how it can be implement this across the UK.

2   Chartered Status - This is a longer-term objective and will require more debate at the UKAB level to define what it means and what makes a systems engineer. This activity will also require making liaisons with the other institutions and the EC(UK), formally the Council of Engineering Institutions.

3   SE Business Case – "What is the business case for Systems Engineering". A review of existing cases is required along with a consensus of what the SE message is.

4   Core Competencies - The core competencies of Systems Engineering need to be established to help with the training and recruitment of Systems Engineers. This issue will be discussed further by the UKAB.

The outcome of the UKAB meeting will be used to kick start the INCOSE Working Groups. If you are interested in finding out more about the Working Group topics and are interested in getting involved please contact the Chairman of the SEPDC, David Wright.

If your organisation is interested in joining the UKAB, please contact Paul Davies.

The next UKAB meeting will be held on 26th February 2003 at Loughborough University.

Douglas Cowper
University College London
Centre for Systems Engineering

The AA2002 Feedback Reports

INTRODUCTION

We had a total of 51 responses spread evenly over the two days from approx. 85 attendees. This is a higher

percentage than normal. Respondents as usual chose which questions they would answer and frequently answered in a different way than requested, or ticked two boxes when only one was required. However a very worthwhile and telling list of comments and suggestions were received.

MARKETING AND REGISTRATION

The marketing, publicity and timeliness were all concluded as good or adequate however we only asked those that knew about it and came. This hardly tells us about those that were not there because the information got to them too late. I wonder what they would have said.

Everyone thought that the registration procedures met their requirements with the only improvement suggested being the use of credit cards, by just a small number, as more companies issue them to their HR departments for low value purchases.

Approx. one quarter of the attendees is definitely planning to attend the Events in 2003, with the majority being "possibly" and a very small number saying no.

VENUE

The venue was approved of in each category, some facets obtaining "Excellent " votes although the median was "Good". The AudioVisual obtained very high scoring although one or two (short immobile people presumably?) could still not see the screen. Some dissatisfaction from those that failed to get in, for the night, – not enough rooms, but most found others in the area although I know that some (very) late bookers had to stay in Oxford.

TECHNICAL SESSIONS

As you may imagine the views were very wide in some areas, and there are no prizes, but I give an overview of these below. All of the requests for a particular paper to be placed on the web were captured and used towards making the decision as to what to put up. I trust that you have all looked at them.

The Intelligent Enterprise

Comments range from "Inspiring" and "Thought Provoking" to "Woolly and Lacking Credibility", but the overall opinion was that more time is needed to cover the topic adequately and some need more time to consider what was said.

SE Standards

Highly rated for information content, presentation delivery, and entertainment value. You just cannot tell can you?

SE. & PM

Received most requests for web placing, but may have been motivated by timing of the request. Comments suggest it was a thoroughly approved of session overall with only minor negative comments.

Establishing the SE Skill Set

Although containing spells of interest and some excellent content it clearly also had its weak spots.

About the Next Event

Probably the most negative comment about this event was the lack of proceedings in some form being provided at the event which was a bit surprising as we rarely do at Autumn Assemblies. This is not the case at spring events (The next Event) where we give a fairly full description in the event handbook and proceedings on CD-ROM. We will endeavor to provide more at the autumn events in future. Provision of all of the information on the web afterwards is not an adequate alternative and will not be attempted.

We obtained a number of useful suggestions in each area. All but one thought that the value of the Autumn Assembly was good or fair with the one dissenter being unable to sleep due to traffic noise (presumably during the night). No one wanted to reduce the price; in fact some spoke against the idea. Several wanted smaller healthier lunches, but not for cost sake. A number of requests as usual for people's experience of live examples, case studies etc and a growing interest in special interest groups especially for transport which with our attendees probably means rail. Someone wants us to discuss UML next time! Not sure whether it was Matthew Hause or Jon Holt. Some good ideas that need reading and consideration for future events came through including ideas for keynote and after dinner speakers. We did not ask whether you approved of the after dinner presentation by Jeremy Bliss but we only received good vibes, and hopefully we have a couple of good ones lined up for the Spring event.

Earlier release of Publicity material was recommended and we try to do this every time and will try even harder next time. There was also the request for a web page make over.

Centre for Advanced Instrumentation Systems (CAIS)
Centre for Systems Engineering (UCLse)
University College London

Forum on "Designing your Business Future"

Tuesday 18th February 2003 at 2 pm

Gustave Tuck Lecture Theatre
Chaired by Professor Alan Smith в Director CAIS

**CAIS and UCLse are holding a Forum to discuss how businesses can introduce new technologies into their organisation.
A wide range of topics and speakers has been arranged, including:**

Business Technology Strategy – Dr Brian Harrison, Director of Research, Johnson Matthey

Business Models – Dr Jon Holt, Director, Brass Bullet Ltd

Nanotechnology – Prof Ian Shanks , Director of Engineering & Physical Sciences, Unilever

Micro-Electro-Mechanical- Systems – Dr Clyde Warsop, BAE SYSTEMS

DNA Microarrays – Dr Tim Fell, Arrow Therapeutics Ltd

Technology Planning Services – Dr Andrew Crookell, Head of Development, Sira

Technology Awareness – Duncan Bull, Business Development Manager, CAIS, UCL

DTI Support, Dr Ian Harrison, Deputy Director, Key Business Technologies, DTI

Corporate Ventures, Venture Capital – Dr Jeff Skinner, UCLb, UCL

IPR – Dr Matthew Shade, Manager, Intellectual Property, Cambridge Display Technology

Supply Chain – Doug Cowper, UCLb, UCL

The Total Process – Prof Alan Smith, Director CAIS, UCL

The event will conclude with a **Wine & Canapé Reception** and include a Poster Exhibition.

For further information, please contact Marion Andrew at:
CAIS, 3, Taviton Street, London WC1H 0BT
Telephone: 020 7679 4908
Email: cais@ucl.ac.uk

A registration form for this event can be found at http://www.ucl.ac.uk/CAIS/

The UK Newsletter

While we had you sat down and captive we also asked for your views on the newsletter. While receiving enthusiastic comments from some quarters comments suggest that a makeover is also required here. Request for needing to be better presented, glossier, and punchier show through.

Apart from this its content, size and frequency seem approved of but there was definite support for 6 issues a year. A number of useful, suggestions for general features were received together with a small number of volunteers to produce articles –although I have not heard of any arriving for the January issue. A general undercurrent of requests existed for more in the way of news about SE and INCOSE in the world. Something like what particular university is the latest to establish a Chair in SE, and SE courses now becoming available on/ at .. etc. What is happening in the INCOSE Technical Groups and specifications being produced, even if the information is on the members area of the web site.

The Improvement Questionnaire

Some improvements required here, your suggestions have been noted e.g. we omitted to ask specifically about the dinner or after dinner speaker. Positive feed back from the dinner was seen in the photographs of the dinner which indicate that every one was having a good time. I have never seen such a happy looking lot of systems engineers.

JDM

8th Annual General Meeting of INCOSE UK

The following is a brief report of the proceedings.

Any member wishing for a copy of the minutes may apply to the Administrator and a copy will be sent.

HELD IN ABINGDON AT 12.30PM ON MONDAY 11TH NOVEMBER

The notice of the AGM had been sent to members at the time of the August Newsletter and the agenda issued therein was followed. The President Paul Davies started the meeting with his annual report.

President's Report. Paul reminded those present that he had started his term with five objectives and he reported on the progress as follows:

To involve employers in the INCOSE Programme.

A UK Advisory board had been set up to involve the employers of most members in the running of INCOSE. This is called the UKAB and Paul was pleased to announce that he had signed up the first member BAE SYSTEMS just the previous week. He also had

commitments from Thales and UCL to sign the MOU once their lawyers had finished reviewing the terms.

To increase membership levels

This had proven a little more difficult because those failing to renew roughly matched the recruitment of new members. It was clear that this was often as a result of it being overlooked as well as those who wished to leave through retirement or job change or no longer wishing to be a member. Each June the first when the membership year starts the membership reduces to close to zero and only creeps up again when ex members finally get around to renewing. The membership mix had broadened significantly into other market sectors since INCOSE early days when Defence and Aerospace were the major players. It was hoped to continue with this spread and to involve more SMEs.

To run events without directly seeking sponsorship

Paul reported that we had improved our financial position considerably in recent times through running successful events and having the support of sponsors at those events. We were therefore less dependant on sponsorship but were still pleased to receive contributions such as sponsoring the brochure, handbook, flyer or whatever in exchange for recognition on the document sponsored.

To develop meaningful links with other professional bodies

This was proceeding, slowly, and talks had taken place with IEE which established an informal working relationship although no formal agreement had yet been put in place. The other engineering institutions and such as the Association of Project Managers would be approached in time.

To identify a set of core competencies

The approach to this was being outlined and we were having discussions with a number of organisations that wished to participate in the activity.

In the Secretary's report Allen Fairbairn reported more on the membership issue, believing member's slowness to review was responsible for many members disappearing off of the list. He thought that the direct debit scheme that we started a couple of years ago would help in this regard if more members went onto it, and perhaps the members of the UKAB may give numbers a boost. Allen volunteered to look again at the inputs we receive from new members on their application forms to see that we are still taking adequate note of what members think we should be doing.

Dorset and South Wiltshire Branch
Chairman : P Tomlinson CEng FIEE

Hon Sec: D Middleton AMIEE
9 Merrow Avenue, Poole.
W: 01202 853767; H: 721297
dymiddleton@iee.org

Younger Members
Chairman: R Beacham

W: 01202 404512
Richard.beacham@iee.org

IEE

Tuesday 11th March 2003, Salisbury

7:00 pm (tea at 6:30) Salisbury Guildhall.

Cleanroom Technology

Presented by Mark Green,
Director of the Cleanroom Containment Company
Organised by Mr E Dunkin 01980 664055 edunkin@IEE.Org

Many industrial processes require a controlled environment to ensure product is not exposed to particulate contamination at critical stages of manufacture. In the pharmaceutical and biotechnology industries this affects not only product quality, but also patient safety.

This talk will guide those to whom Cleanrooms are an alien environment through the basics of the subject, and give those who already have an insight into contamination control through microelectronics and aerospace an alternative window on the subject.

In a field with ever increasing regulatory control we will cover the design and documentation process required to achieve a licensed production facility. Encompassing project areas from design and layout of the facility, covering product & personnel flow, to validation of the finished building services and production equipment. We will also consider the implications of change control and security of electronic records.

Next time you need an injection, be it a holiday vaccination or urgent medical treatment, think about where it was made and how sure you want to be that the standards were met.

**Members of the public are welcome: Free admission:
No booking necessary: Free refreshments: To subscribe for free
send e-mail to iee-dswb-subscribe@yahoogroups.com**

For further details, directions and future lectures browse
http://local.iee.org/dorset_swilts/seniors/events.html

Treasurer's Report. Peter Lister had produced the report from the year's accounts produced by the retiring treasurer, Matthew Chittick, but was unable to attend the meeting. Paul Davies presented the highlights and advised that any one requiring the accounts could obtain them from Peter Lister. The profit and loss account showed that we were now in a financially sound position so could consider undertaking some of the activities that the board had been wanting to do for a long time. The turnover in the last year had been very close to the previous years with two successful events and a turnover of £68k. Attendance at events had been down with slightly higher costs and margins approximately the same.

Report by the Chairman of the SEPDC David Wright. David reported on a successful year in running the technical affairs of the chapter without having any budget. He needed to have more active members on his committee before they could expand their range of activities. David is working, together with Stuart Arnold, on the INCOSE certification effort to ensure that the result was international in application. David appealed for more volunteers to join him in establishing and working through the technical agenda of the chapter. (After meeting note. David has now been elected as Region 3 (Europe) director for membership so the chair is becoming vacant very shortly if you would like to apply).

CMC Report. Guy reported that the principle activity of the communications and Membership Committee was the production of the newsletter. He continued to seek input, preferably technical for the newsletter which, was now going to be produced six times a year instead of the current four.

Election of Officers. The election of officers was held and as no nominations had been received since the time of the invitation in August and therefor no contentions the election was held on block. The previously announced volunteer for the position of President Elect had withdrawn so nominations for this post are still sought.

The result of the election was as follows.

President	For a second year	Paul Davies
Immediate Past President	For a second year	Peter Lister
Secretary	Re-elected for a further term	Allen Fairbairn
Treasurer		Peter Lister
Board Member for academic liaison		Doug Cowper
Chairman of the SEPDC	Re-elected	David Wright
Chairman of the CMC	Re-elected	Guy Tugwell
Officer for Liaison with IEE	Re-elected	Stuart Arnold

The candidates were proposed by Bob Dale, seconded by Jon Holt and approved by a majority of members present by a show of hands.

For a copy of the minutes contact John Mead at John.Mead9@ntlworld.com and for a copy of the accounts - peter.lister@siemens.com.

John Mead

Lost and Found

When we cleared up after the Autumn Assembly in Abingdon a wrist watch was found on the podium. Presumably the property of one of our speakers but so far no one has enquired. If it belongs to you, or you know who does own it then please contact John Mead. 01344 422325.

We have also managed to obtain the venue that so many of you voted as excellent on our visit last year – Five

Spring Symposium 2003
May 12, 13, & 14.

Well done to all of you that responded to our Call for Papers for the above event. What a fantastic response especially to the Call for Papers but also of offers of tutorials and exhibitors too. Papers include new topics and several Case Studies!

David and his team have done a first selection of the papers received and have more than enough to occupy us for two days but he is still accepting a few more in the interest of providing a real balanced quality programme. Full papers are needed in by 14th Feb so if you have not told him you are planning to send him one you had better email him with an outline straight away. david.wright@gtnet.gov.uk

Lakes Hotel, Golf, Country Club & Spa.

We only had two moans last year, for one it was too far away, and for another we did not tell every one in advance what good facilities there were so they had not brought their shorts, golf shoes or whatever! So this year you will be told, but do not worry it does not mean that you will have (time) to use them.

John Mead

INCOME TAX RELIEF IN RESPECT OF ANNUAL MEMBERSHIP SUBSCRIPTIONS

I am in receipt of a letter from the Inland Revenue – Personal Tax Division (Solihull). And I quote " I am pleased to inform you that the Chapter has been approved by the Board of Inland Revenue under Section 201 Income & Corporation Taxes Act 1988, with effect from 6 April 2002."

The covering letter goes on to explain that the Chapter's name will appear in the list of approved bodies, which is due to be updated later this year. Inspectors of Taxes will not receive notification of the Chapter's approved status until then. Therefore if members wish to obtain a deduction for their annual subscription before the list is updated they should explain when contacting their local Tax Inspector that the chapter has only recently been approved and quote the Head Office reference SAPP/ T1644/26/2002/JEM.

So there you are –well done the new Treasurer.

Those of you that still have not renewed for this year can now get your cheque book out and pay up knowing that you will be saving money!

(John Mead)

London Region Interest Group

INCOSE UK's London Region Interest Group (LRG) was launched with its inaugural event held at University College London on the 21st January 2003. The event kicked off with a thought provoking presentation on "Applying Goal Directed Requirements to COTS Procurement" by David Bush of the National Air Traffic Services. This topic certainly inspired a long question and discussion session afterwards.

The LRG would like to thank David for stepping in at short notice after our original speaker, John Williams, was taken ill. We would also like to wish John a speedy recovery.

The group discussed what it would like the future format and programme to be and what topic areas it should cover. These topics included: workshops/ surgeries, who's who and who's doing what in Systems

Engineering, local issues and SE, raising SE's profile, and involving other sectors, e.g. finance, town planning etc. It is no coincidence that these are the same issues/ topics that members express interest in at the main INCOSE UK events and on which members propose papers.

The meeting concluded with networking over a few glasses of wine and some nibbles.

The event attracted approximately 30 people and was very well received. There was certainly enthusiasm and support to continue this activity, so if you are interested in participating and getting involved with the London Region Interest Group, please contact Douglas Cowper.

The next London Region Interest Group event will be announced shortly and will probably be in March.

Douglas Cowper
University College London

Lead from the front at a Spring Symposium Tutorial

As usual, the first day of the Spring Symposium 2003 will be devoted to tutorials. The proposals are already rolling in following an e-mail shot, but there is still room for more offerings.

We want to continue to provide tutorials that appeal to, and attract, new members, but we also want to provide more advanced material that will appeal to more experienced members.

There are many approaches that might widen the appeal of tutorials, including:

- In depth tutorials on a specific aspect of an SE topic (e.g. Elicitation and management of User Requirements).

- Coverage of specialised SE topics (e.g. Risk Management techniques, decision support techniques).

- Application specific tutorials (e.g. System of Systems in the Defence Industry, doing business with Network Rail)

- Use of a workshop format to enable development of ideas through a facilitated discussion – these could contibute to INCOSE working groups.

- Use of a master-class format to help SE practitioners to solve problems facing them in the work-place.

Questionnaire responses tell us that members are keen for more information on a whole range of topics including all of those mentioned below.

- Selling SE to senior management

- Management theory compared with SE4IE

- Business cases for SE

- Activities that support SE processes

- The theory underpinning SE

The terms and conditions for Tutorial Providers will be similar to those in previous years; a fixed fee for the first 8 attendees and a pro-rata fee for any subsequent attendees. Optionally, Providers may waive their fees to encourage people to attend an "experimental" or interactive format – this will result in the attendance cost of the tutorial being halved. Note that as a minimum INCOSE UK needs to cover the cost of room hire and refreshments, and so a completely free tutorial is not feasible.

If you would like to present a Tutorial session then please contact in the first instance at peter.lister@siemens.com. I will send you details on what information is required with your proposal. Don't delay, because we need to advertise all the tutorials in the Symposium brochure to ensure that all your hard work pays off with a full presentation room.

Peter Lister

Exhibit at SS2003

A major part of our Spring Symposium will be the exhibition which takes place on the Tuesday and Wednesday in parallel with the conference. Final details are yet to be resolved, but the intention is for this to be co-located or located adjacent to the conference hall and used for coffee breaks etc to encourage everyone to visit the exhibits. It is planned for it to be open after the close of the conference on the first day to permit delegates to browse without missing the conference.

We will be offering 3 metre square stand spaces for you to erect your own display. The stand space will come complete with furniture, lighting, power etc. Booking a stand space will entitle exhibitors to include a product or service description on the event CD ROM and in the handbook. Staff lunches and refreshments will be included.

Costs are likely to be similar to last year at £800 total for the two days with discounts being offered for additional spaces, and to academic and not-for-profit organisations. Exhibitors will receive a copy of the conference pack, including the CDROM, and one conference ticket.

Details will be finalised in the next two weeks and invitations sent to interested people. If you would like an invitation, and have not already advised John Mead please let him know on john.mead9@ntlworld.com or 01344 422325.

The Spring Symposium 2003 will be upon us before we can say Intelligent Enterprise! The ground work is done, we even have an after dinner speaker booked, but there are still some decisions to be made and papers to be drafted and hopefully selected,, programme to be sorted, space booked, budget to be compiled, advertising done etc etc.

The plan is very similar to the last couple of years as every one appears to have enjoyed them very much and some good plans have been laid. We hope to have some new tutorials covering fresh ground, and a lot of new paper subjects, we have some already. David and his very small team are busy reviewing proposals for papers, but the last I heard he was still wanting some more. We have space for several more tutorials - Peter had about half last time I asked him. Exhibition invitations have not yet gone out but please let us know if you have something to show off or shout about and we will send you an invitation shortly. The venues currently being considered have some form of fitness facilities or opportunity for social activity even a golf course if any of you are interested. We had the full set last time and it was not known in advance so it will be advertised what we end up with this time.

If you have considered doing a paper, presenting a case study, putting on a tutorial or sharing your Systems Engineering experience, in whatever application area in some form, here is your chance. Do not hang around, have a look at the additional information provided elsewhere in the newsletter and then get in touch with the person looking after it. David Wright for papers, Peter Lister for Tutorials, John Mead if you would like to exhibit. Contact details on the last page. If you want to do the lot call John. Payment for your tutorial could finance your whole participation.

John Mead

Events

TOPIC:

Cleanroom Technology

SPEAKER:

Mark Green, Director of the Cleanroom Containment Company

VENUE:

Salisbury GuildHall,

DATE:

Tuesday 11th March 2003, 6.30pm Coffee, 7pm Start

SYNOPSIS:

Many industrial processes require a controlled environment to ensure product is not exposed to particulate contamination at critical stages of manufacture. In the pharmaceutical and biotechnology industries this affects not only product quality, but also patient safety.

This talk will guide those to whom cleanrooms are an alien environment through the basics of the subject, and give those who already have an insight into contamination control through microelectronics and aerospace an alternative window on the subject.

In a field with ever-increasing regulatory control we will cover the design and documentation process required to achieve a licensed production facility. Encompassing project areas from design and layout of the facility, covering product & personnel flow, to validation of the finished building services and production equipment. We will also consider the implications of change control and security of electronic records.

Next time you need an injection, be it a holiday vaccination or urgent medical treatment, think about where it was made and how sure you want to be that the standards were met.

And Finally

Our caption competition:

Dr Jon Holt and Col. David Wright.

Paul Davies, President

Suggestions for captions accepted in person at the Spring Symposium. No prizes, sorry.

Guy Tugwell

Stop Press:

Our congratulations to David Wright on his election as Membership Director for INCOSE Region III (Europe, Israel and South Africa). David has put in a lot of hard work as SEPDC Chair in organising our events over the last two or three years, and our grateful thanks for that. David will make an excellent ambassador for Europe, and UK in particular, in his new role on the international stage. This has left a gap in the running of the UK Chapter, and I am delighted to report that Dipesh Patel of the newly formed Tubelines organisation has agreed to take on the SEPDC Chair responsibilities. Dipesh's experience of the (increasingly competitive) transportation business will, we hope, help broaden the image of INCOSE UK, which is perhaps seen as too oriented towards defence and aerospace.

There were no nominations for the post of President-Elect for the AGM to ratify at the Autumn Assembly. However, a little arm-twisting has been applied, and I am again delighted to announce that Professor Philip John of the Defence Academy (Royal Military College of Science, Shrivenham) has agreed to serve as President-Elect. He will take over from me as President in January 2004, subject to formal election at the 2003 Autumn Assembly AGM. Philip was responsible for setting up the Masters degree course in Systems Engineering for RMCS, and I could not have wished for a better-qualified successor. I hope you will join me in wishing both Philip and Dipesh every success for the future of INCOSE UK.

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For the forthcoming Spring Symposium

SS2003 May 12 to 14th

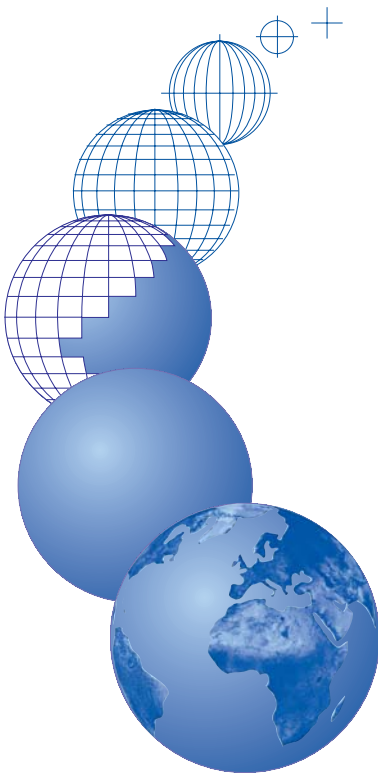|	
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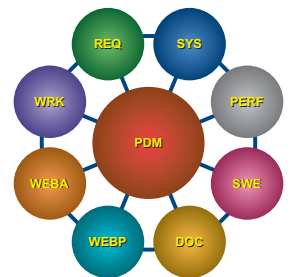
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