



INCOSE UK Newsletter

It's Never Too Late...

Well that's not strictly true, it soon will be, if you want to attend INCOSE '99 at Brighton. Everything looks set for a cracking event, so it would be a pity to miss it for the sake of filling out the form. The fax machine at PCMI, the conference providers, is waiting for your registration form, and in John Mead's article that follows he reminds you how to get hold of one of those.

And things don't come to a halt at Brighton. The SEPDC has been planning the Autumn event, and this promises to be another one not to be missed. The emphasis is on more interactive sessions that will not only inform and educate, but also give you a chance to air your views. I have not met a Systems Engineer yet who can resist an opportunity to add his or her three ha'p'orth to a discussion. Details are still to be announced, but be sure to reserve the dates in your diary.

At a local level things are also happening, and with your assistance even more could be done. Since the last Newsletter there have been meetings at Bristol and Rochester. We must thank Chris Davies and Richard Smith for organising these. As you can see from my report of the Bristol meeting it was a resounding success, and Chris is hoping to follow this up with more meetings. I have not yet had a report on the Rochester meeting (I would still welcome one), although I understand that the attendance was more modest. Local meetings are still something of an unknown quantity, when we have done a few more in different areas of the country we should be able to obtain some metrics. In the meantime we will try to run as many local meetings as possible. If you have any views on what has already been provided or what might motivate you to venture out on a rainy Wednesday evening (a well known MoE for audience motivation) then please let me or John Mead know.

Finally don't forget that this Newsletter is available to publish your news, views, reviews, forthcoming events,

and any other material that may be of interest to the membership. Don't be shy, I welcome material from any source. The only proviso is that the Newsletter is not geared up for full scale technical papers - if you feel one of these coming on you should contact the INCOSE Journal - so short and to the point are the key words.

See you at Brighton!!

Pete Lister

President's Corner

This is definitely the last newsletter that we'll be sending out before the Brighton 99 Event - the biggest and the best International symposium devoted to Systems Engineering that has ever been held in this country!

Everything is in place now. We have the fullest programme that INCOSE has ever put on. 163 papers, 15 panels 18 tutorials, lots of Interest and Working Group meetings, a packed out Exhibition Area, poster sessions... We achieved our breakeven delegate numbers some weeks before the Event and we're now waiting for all of those last minute registrations that seem to be a hallmark of Systems Engineering Events. Honestly, folk, I've heard of "just in time" but do you have to apply it to everything?

Seriously, if you haven't registered yet, then it's not too late. But whatever you do, don't miss this because you're not sure whether it's going to be worth it. It IS worth it, whether it's the whole week, or a few days, or just the one day that you take out of the day job to add more value to the Systems Engineering knowledge that you undoubtedly already have as a Chapter member. There has to be enough on offer to cater for every type of reasonable requirement!

For those of you who are already coming, let me reiterate my plea that you take the opportunity to look seriously at getting more involved with INCOSE. I have already

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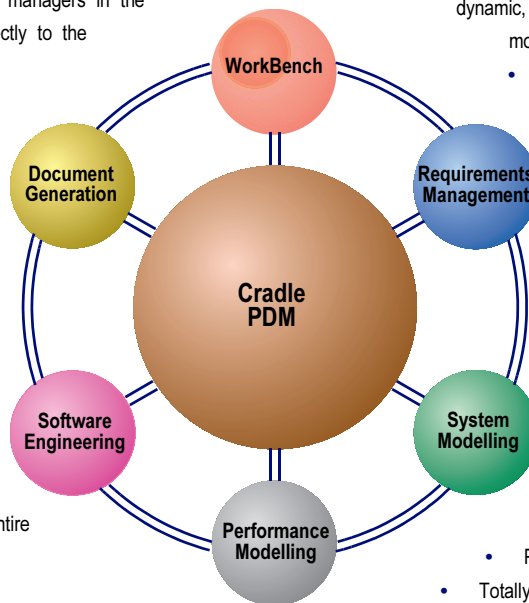
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pointed to the 30+ Interest and Working Groups into which the Technical Committees split their activities. Have a look at one or two of these. There will be meetings of these committees throughout the week where open house rules apply. The Symposium Guide and the Daily Newsletter that we will be producing will keep you informed of these events, which do tend to be loosely organised to start with and supplemented ad hoc throughout the week.

I look forward to meeting you at the 'Biggest and the Best'.

Allen Fairbairn

The Biggest and The Best (Last Instalment)

I am not party to regular updates on the number of people that have registered for the Big event, but I do have to hand the details circulated by Peter Robson on 24th May giving details of those received up to 21st. At that time we had 710 potential attendees, although some had not yet paid, or completed a registration form or were in some other intermediate state. If you are one of the former, be sure to complete and fax to PCMI a registration form. These are found in the brochure, and on the website www.incose.org.uk/incose99/.

The participants are coming from 18 countries if we count Scotland as part of UK that for some reason the list does not. Perhaps devolution has gone further than we thought.

The tutorials are looking very well supported and I believe they will all be held, but please check the web site for confirmation. The Roaring 20's event is listed as cancelled which is a great pity, but these things do not work unless you have enough attendees.

At the time of writing we are awaiting confirmation on the last exhibition stand, as this will make a full house of fifty booths booked. Late comers not listed in the last newsletter include:

- Popkin Software
- Marconi Electronic Systems
- Sentient Systems
- Fokker Space
- Boeing
- De Montfort University
- University of Brighton
- University of York
- INCOSE UK

It certainly looks as though it is going to be a well attended event, but there will still be those who after the event will say "Oh I would have come if I had known it

was on". I know that many of you have received more than enough flyers or reminders so if you are one please send them on to some who may not know of it.

We have two more weeks, or probably less than one by the time that you read this. Will there be a last minute rush? We are ready and waiting if there is, but get your registration form in soon.

John Mead

Standing Room Only at Bristol

The local meeting held at BAe Bristol proved to be a great success. Over 85 turned out to hear Derek Hitchins present his talk on Demystifying Systems Engineering. Extra chairs had to be brought in, and even then some were standing at the back. There were about 20 INCOSE members present, including several members of the INCOSE UK board, who were in Bristol for a strategically arranged board meeting. If only half of those new arrivals were to join INCOSE, then the UK Chapter could get close to the three hundred member mark.

Chris Davies, who organised the event, gave an introduction to the meeting. John Mead then filled in those new to INCOSE on the benefits of membership. Peter Robson followed with a quick commercial for INCOSE '99 before Derek took the stand for the main event of the evening.

Derek expounded his views on Systems Engineering theory in a clear, and deceptively straightforward manner. It was clear to me that there was much meat to pick from the bones, and I look forward to receiving a copy of the slides for more considered review. It was also clear that Derek's presentation was more than 'skin deep' in the lively question and answer session that followed.

Allen Fairbairn led the vote of thanks at the end of the meeting, and then the assembled multitude then fell on the 'goody' table to pick up samples of the Newsletter, application forms and INCOSE '99 brochures. Two copies of the INCOSE '98 CD-ROM were raffled, the lucky winners being Richard Lees and Sanjiv Sharma, both of BAe Airbus.

All in all it was a very successful event, and more than enough to encourage the scheduling of another. Many thanks to Chris Davies for putting in the hard work needed to get this meeting off the ground.

Pete Lister

SEPDC Meeting Report

The SEPDC met at DERA Fort Halstead on 20th May. The major part of the meeting was devoted to producing an outline programme for the Autumn Event, the results

of which are described elsewhere. Recent local events were reviewed and preliminary planning set in train for future ones. The SEPDC is working towards the establishment of a regular annual pattern of local meetings in five or six centres around the country where there are significant concentrations of members. Some progress was made on the production of a high level - "This is systems engineering" - brochure for distribution to enquirers and their parent organisations. In order to spread the word on systems engineering into new environments, the Board had asked the SEPDC to identify suitable speakers to address leading organisations in different environments. The feeling was that we do not yet have the necessary material, particularly anecdotal evidence, to be able to present our case in a sufficiently polished manner to take on this challenge. However, work on the Systems Engineering Manifesto, of which the brochure material is part, will tend to fill this gap. Systems engineering techniques are applied in many environments, often without recognition that that is what they are. There is enormous potential for cross-fertilisation of ideas and mutual support into which INCOSE UK could tap if contacts could be established. The SEPDC is therefore seeking to establish such contacts with a view to entering into dialogue. If you can help in this regard please inform any member of the SEPDC or our Administrator.

Mike Prince

Membership Matters

I understand that the renewal notices have all gone out, so please renew if you have not yet done it. The INCOSE membership year runs from June 1st to May 31st. This year the Annual subscriptions have been increased to \$80 per annum or £50 if you pay in sterling.

The whole of the increase goes to the Central Office; we only get to keep \$20 of each subscription as before. I would urge you to renew; we need as many members as we can because the revenue generated is little enough anyway. To renew you have three choices:

1) Pay \$80 in response to the renewal notice; 2) Send me a cheque for £50, whereby we get the use of the money for a few months; 3) Pay your subscriptions along with your registration fee for Brighton.

You may like to know that in the last set of Central Office membership statistics dated 12 May our total UK Membership has now gone up to 280 which makes us still the third largest Chapter. Los Angeles have also leaped up (to 300) being second behind Washington Metro. Make sure that you renew to remain part of this growing organisation.

John Mead

The Autumn Event

This autumn's UK Chapter meeting will be bigger than any previous Autumn Event, with more technical content and a wider appeal. The theme will be "The Wider Context of Systems Engineering". The format will include a mix of invited presentations and workshop sessions. Oh! and an hour will be set aside for the AGM on the second day.

Workshops are planned on two very different topics: "Does maturity imply competence?" and "In-service Systems Engineering". Many systems engineering organisations are investing heavily in developing and promulgating their processes in the pursuit of accreditation to progressively higher levels against a Capability Maturity Model (CMM). Yet, what evidence is there of a positive correlation between increasing maturity and ability to produce better system solutions? The processes must be implemented by individuals and it may be that their competence and behaviour have more impact on the quality of system solutions. How should we balance the effort spent on different approaches to achieving quality solutions consistently? How do we prevent the pursuit of CMM accreditation becoming an end in itself? The workshop will attempt to generate an INCOSE UK view on these issues which are important for the development of both systems engineers and systems engineering in this country.

There is a trend at the moment to talk of different flavours of systems engineering each with their own peculiar challenges. Thus, in addition to the "vanilla" flavour, we have:

- Requirements Driven SE, which tends to be particularly focused on commercial product development
- System-of-systems SE, which addresses the co-operative interaction of independent systems in an enterprise context
- In-service SE, which deals with the need to ensure continuity of service whilst improvements and changes are made

This latter flavour is one that is relevant in both the commercial and military environments, although it is probably most obviously recognisable in relation to keeping an infrastructure service, such as a railway, operating safely whilst it is being upgraded. Different strategies have evolved for dealing with such problems, which bring with them different obsolescence issues, configuration management challenges, training and interoperability problems. The workshop is intended to explore the challenges of this flavour of SE and to characterise the different types of solution building on inputs from the transport, military and banking environments.

Systems Engineering Symposium

Sharing the Future

The Systems Engineering Event of the Millennium!

- ❖ PROFESSIONAL TUTORIALS - 10 WHOLE DAY - 8 HALF DAY
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Tutorial and Panel Topics; - Writing Good Requirements, Commercial Systems Engineering (SE), Processes for SE, Requirements-Based Product Engineering, Concept Analysis, System Validation and Verification, PM and SE, Integrated Process Improvement, Managing Risks, STEP, Case Studies, Trade-off Studies, Quality, SE Capability Model, Practical Systems Management, Tools, Status and Future of EIA 632, ISO 15288, EIA 731 and CMMI, and more.

It is all here, and a lot lot more.

World-leading organisations from both defence and civil industry, from academia and from government agencies will be there to share and to learn more about systems engineering in theory and in practice.

 **You need to be there too!**

Top value

Single days from £75 to £170 and a full three days, including meals, banquet and full proceedings and a years membership for £460. Why pay more?

INCOSE '99 will be the world's largest gathering of Systems Engineering Professionals.

At the Stakis Brighton Metropole Hotel 6-11 June 1999.

Check details on www.incose.org.uk/incose99/ or contact John Mead +44 (0)1344 422325 or fax 01344 481035 for a full programme and registration brochure.

Sponsored by Aerosystems International, The Aerospace Corporation, Ascent Logic Corporation, British Aerospace, Boeing, Defence Evaluation and Research Agency, Department of Trade & Industry, ADSE and 3SL.

The invited presentations are intended to increase awareness of the wide applicability of systems engineering and to encourage cross-fertilisation of ideas. "Whose lifecycle is it anyway" will explore the similarities and differences in the SE lifecycles in the Pharmaceutical and Automobile industries, in major infrastructure projects and complex, safety-critical medical equipment. "Simulation and the systems engineer" will explore the numerous ways in which simulation can now be used to design, develop, prove, validate, support and sustain systems. It will address questions of cost-effectiveness, fidelity, verifiability, flexibility, human interaction and analysis of results in relation to purpose, scope and context. The aim will be to achieve a balanced view of the utility and limitations of simulation in support of the SE lifecycle. "It's systems engineering, Jim, but not as we know it" is intended to describe the systems engineering of some major transport projects in the developing world.

Additionally, there will be an opportunity to follow-up issues arising from the "I'99" Brighton event. The event is being planned for the 8/9 of November or some time that week, at a location to be announced. Make a note in your diary.

Mike Prince

AFCEA Technet Europe

AFCEA is a world-wide Association for Communications and Electronics professionals. The European region holds an annual symposium and exhibition and this year marks the 20th 'TechNet Europe'. It is being held at the Renaissance Hotel, at Heathrow, and some 650 participants are expected to attend the event and visit the exposition, together with some 50 exhibitors.

High-ranking speakers and video links with select officials will underline the importance of the technical programme in the light of the many changes happening in NATO as well as marking NATO's fiftieth anniversary. The event will be opened by Air Chief Marshal Sir Peter Squires, RAF, Air Officer Commander-in-Chief Strike Command. Other speakers will include Admiral James O Ellis, USN, Commander-in-Chief of NATO's Southern Region and Commander-in-Chief US Naval Forces Europe, and Lieutenant General O L Kandborg, Danish Army, the Director of NATO's International Military Staff. Other invited speakers include Mr John Maberley, the Director of Programmes at the UK's Defence Evaluation and Research Agency, and Vice Admiral Sir Ian Garnett, the UK's Chief of Joint Operations.

TechNet Europe 99 is on track to be one of AFCEA's most successful events in the UK. Further information can be obtained from AFCEA's European General Manager at 6 Rue de Geneve B2, 1140 Brussels,

Belgium. Tel No 32 (2) .705.27.31 or fax 32 (2) 705.28.94. E-mail: afcea@euronet.be

Local events

The planning of INCOSE 1999 has kept us fully employed of late so we have not made much progress on the planning of these events. At the last SEPDC meeting however it was anticipated that the following were potential for the coming year. Preston, Farnborough, Yeovil, Bristol, Birmingham, Rochester.

If you could volunteer to help with these as a local organiser, or think that we should be planning something in your area, or even if you would like your name added to the list of volunteer speakers, please advise John Mead. jdmead.a0030182@infotrade.co.uk

John Mead

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