

CHAIRMAN'S COLUMN

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Spring is here again, a time to consider what the year may hold. Well, the SCAF year is full as usual as you can see from the events calendar inside. Something to interest everyone we hope. Please remember, if you have an idea for a seminar or you would like to present a paper, let us know.

Rather than looking forward I have recently been looking back. To when I first joined SCAF, what the Society means to me, and what benefits I have got from my membership. I joined the, now defunct, Directorate of Project Time and Cost Analysis (DPTCAn) from the Eurofighter Project team believing, as most of the uninitiated do, that costing was a fairly straightforward and trivial exercise. How wrong I was. I quickly became embroiled in the mysteries of cost analysis and struggling to understand the more esoteric areas of the craft. Particularly as my specialist area was software!

Soon after joining DPTCAn I was introduced to SCAF. I found membership of the Society invaluable, as a forum for open discussion, to listen and learn as people expounded their theories and practices and, later, to present my thoughts and ideas to an open and educated audience. It has always been a great source of advice and support particularly when I later moved into the area of costing High Level Studies. I have been honoured to serve the Society twice as Chairman and as the recent review showed we are still healthy and I hope providing help and support to the costing community.

One question, which often arises, is what our relationship with other societies should be. Many of our members are also members of other societies and attend their seminars. We have decided to set up a Working Group to consider what our relationship with other societies should be. We will announce the Chairman of the Working Group soon and details will be contained in the next newsletter. We will, of course be encouraging everyone to give their views on the subject.

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Any request to reproduce material from the Newsletter should be addressed to the Editors.

Lessons Learned from the Conduct of Whole Life Costing and Cost of Ownership Studies for IPTs

Report from the SCAF Seminar, 12th November 2002

MoD Abbey Wood, Bristol

This was one of the best-attended seminars seen for some time. The subject matter was very relevant to today's requirement and the speakers were experienced practitioners who told it as it is.

Following the Chairman's welcome and introduction, the opening paper "Meeting the Whole Life Cost Requirement" was presented by **Mike Storey**, Defence Procurement Agency, Pricing and Forecasting Group/Cost Forecasting. Mike gave an overview of the process and discussed the policy and methodology employed in determining the Cost Build-up using some worked examples. He went on to give an interpretation of DPA's policy on risk assessment and concluded with a statement of the challenges facing the cost forecasting community. Not only was this informative, but his passion and experience resulted in very good and interesting debate on addressing whole life cost issues.

Mike was followed by **Wg Cdr Barney Hubble** from the Defence Logistics Organisation, Whole Life Support Team who gave us an update on the progress of implementing the Cost of Ownership (COO) requirements throughout the Ministry of Defence. Barney stated that many hundreds of staff had been trained in using the COO process and that over 200 projects were now considered to be COO compliant.

There is always a difference between the theory and practice in any discipline. This difference was most ably demonstrated by **Gordon Simmonds** from HVR Consulting Services Ltd who presented a case study on "To assess the Cost of Ownership of the UK TRIDENT System". In the presentation, the theory was given as:

- Issue electronic data requests to all stakeholders from your COO template.
- Receive returns electronically and upload into COO template.

In practice:

- Go round and wring the data out of your stakeholders in any form you can get it.
- Massage the data into the required format and extrapolate it.
- Manually enter the data by cut & paste.
- Upload the data to the COO template.

This was excellent. The discussion period at the end demonstrated the worth of the seminar and our thanks to all the speakers. The content of the papers together with the experience of the presenters ensured that this was an excellent seminar and once again provided a forum for interesting discussion and debate.

RAB, IA and all that

The adoption by the MoD of Resource Accounting and Budgeting (RAB), in line with commercial accounting practices, has introduced some new factors to be considered in defence equipment acquisition, and has inevitably generated some confusion and uncertainty amongst the staff responsible. The Senior Economic Advisor (SEA), whose staff is now responsible for the scrutiny of the financial aspects of submissions to the Investment Appraisals Board, has found many instances of error in the methodologies adopted by the IPTs for formulating Investment Appraisals (IA) for their Business Cases.

An example of error (or at least ambiguity) appeared at the recent conference on RAB at the Royal Aeronautical Society, organised by its Management Studies Group on 13th November 2002. The paper presented by a senior DPA official said "... IA now encompasses all resource costs and whole life costs of the equipment, including all the cost of capital charges and depreciation...". During the discussion period this interpretation was challenged by one of the experts present, who argued that Investment Appraisals should be based on the scale and timing of actual cash flows related to real resources but not on transfer payments.

Subsequently the issue has been resolved by the SEA who wrote that "There has, in fact, been no change to IA rules in respect of depreciation and cost of capital charges. It has always been the case that an IA effectively includes both depreciation and cost of capital charges" through its inclusion of the opportunity cost of existing assets at the start of the period considered, of new capital expenditure during the period, and of residual values at the end, all discounted at the real discount rate stipulated by the Treasury, and "if the annual depreciation charge and annual interest on capital were additionally to be included in IAs this would lead to double counting".

This incident illustrates the value of the conferences and seminars held by SCAF (and other organisations) at which those involved in cost analysis and forecasting can discuss innovations, resolve uncertainties and disseminate best practices. It also indicates that, because even senior officials are not always totally right, everyone in the cost analysis community should strive to develop a complete understanding of the methodologies involved, and should be prepared to debate instructions which appear to be unsound.

Is the PSC an objective assessment ?

The Public Sector Comparator is under attack and recent proposals in the Treasury Green Book are set to alter the way in which the PSC is calculated. Poppy Turner of publicprivatefinance evaluates whether more changes are needed

The PSC is a hypothetical figure that estimates the cost of a publicly financed project to deliver equivalent benefits to the PFI option. In theory, PFI can only proceed if it is shown to be better value for money than the PSC. In the past, opponents of PFI have criticised the way the process has been designed for encouraging project managers to see the PSC as a test that their PFI project must pass, as opposed to an assessment of Value for Money for the taxpayer.

HM Treasury's new "Green Book" sets out the appraisal and evaluation standards for all public investments. This revised edition contains fundamental changes to the way the PSC is calculated. Firstly, the discount rate has been revised downwards from 6% to 3.5%. This alteration follows criticism that the higher rate should be reduced to represent the social time preference rate. This could have swung the decision on a number of signed PFI projects. However, a further alteration to HMT's guidelines could swing the PSC back in favour of PFI. A new calculation called 'optimism Bias' (see note below) which aims to account for the extent that project managers overestimate their own efficiency in publicly run procurements, could potentially add between 2-10% to the cost of the PSC.

There are also changes in the way tax is dealt with, to recognise the taxable wealth generated by PFI. This could add up to 30% of the PSC. Despite these alterations, some believe that if a fair comparison is to be made between PFI and conventional procurement methods, the comparison requires a more dramatic overhaul.

The Value for Money argument will always be ringing loudly and Unions will argue that workers jobs are often a casualty of this system. Many in the private sector are keen to move the debate on from being simply about the PSC, and are urging the government to abandon the PSC and instead "benchmark" new PFI schemes with existing ones, as is common practice in the private sector. But despite noises coming from both pro and anti PFI camps, the "Green Book's" changes to strengthen the PSC suggest that a full alternative is still a long way off.

HM Treasury's guidance is clear that cost and the PSC should only be one small part of the comparison. The onus is on all departments to ensure that they are conducting the assessment properly.

Edited by kind permission from an article by Poppy Turner in PublicPrivateFinance

Post Note:

The inclusion of this 'Optimism Bias' was raised at the SCAF seminar held in February 2003 (see later article) and the ensuing discussions demonstrated that there is not yet a clear understanding on the implementation of this new calculation.

SCAF Newsround

Nanotechnology

Nanotechnology is rapidly becoming the latest buzzword but it is more than a dot.com – type flash in the pan, as already many products in the marketplace owe their existence to nanotechnology; for example, CD's, air bag pressure sensors and ink jet printers. Even cars use polymers reinforced with carbon nanotubes – and these were only laboratory wonders only five years ago. Any product which possesses a characteristic or attribute that involves some manipulation or measurement at or below 0.1 of a micrometre falls under the umbrella of nanotechnology. These include paints, medicines, foodstuffs, clothing, packaging and new materials for aerospace, automotive and construction applications. It is likely that any product you care to think of within the next decade will have some nanometre feature.

Small organisations are leading the charge and, in the UK we are doing rather well, creating more nanotechnology companies than most of the other industrialised countries. There are also first class research teams in the universities of Oxford, Cambridge, Southampton, Sheffield, Cranfield, Birmingham, Newcastle, Glasgow, Edinburgh and St Andrews.

For further information check out: Otilia Saxl of The Institute of Nanotechnology – o.saxl@nano.org.uk or Liz Kalaugher at nanotechgweb.org

Paying for Risk Management

In a recent letter by Martin Amison, Partner, Trowers and Hamlins he states that the press is full of indignant comment that fat cat PFI developers are pocketing millions of pounds that are the windfall gains of refinancing PFI projects. There are calls for the public sector to receive such refinancing gains. This indignance overlooks the risks which PFI developers face in getting to the point at which refinancing is possible and overlooks the basic premise that PFI is about shifting risks from the public sector to those prepared to take them on.

Refinancing typically takes place once a project has been constructed and has moved into a smooth operating phase. By that time the PFI developer has taken the initial bidding cost risk, project development and financing risk, design and construction risk and has stabilised the operating risk. If the PFI developer has done well he has managed and avoided those risks and has developed a viable project. He has also done so on the basis of a competitive price achieved through public tender and if other private sector developers felt that he was bound to achieve a windfall profit they would, of course, have undercut his bid. If the public sector were to demand a right to pocket the risk premium, would it also be content to pay more in the event of say a construction cost overrun?

A useful analogy might be to consider whether a householder might be entitled to recover the insurance premium at the end of the period of insurance, on the basis that his house or possessions have not been damaged by accident or break-in and that therefore in the absence of a claim, the ‘fat cats’ of the insurance company have a windfall gain from the premium paid.

Survey Predicts Dazzling Decade !!!!

Robert Uhlig, the Technology Correspondent with The Daily Telegraph wrote in 1996 the following article which contained some interesting predictions. “...Within 10 years British scientists expect to find a cure for arthritis, to have developed genetically engineered food that treats diseases and to have put electronic cash in general use. More than 3,000 British specialists from industry, universities and government published their collective opinion on future developments in the Delphi survey of the UK Technology Foresight Programme, produced for the Office of Science and Technology.

If the predictions come true, by 2005 we will be eating treated food that overcomes allergies and contains vaccines. The scientists also predict that within the next decade more than half of all homes will have a fibre optic link to pipe interactive television services into the living room. Widespread use of interactive multimedia services and software to aid learning will, the experts believe, lead to the foundation of ‘virtual universities’ where students no longer attend tutorials but use video conferencing to speak to their teachers. The experts also predict that:

- Everybody will be issued with a “smart card” for life that stores the holder’s birth certificate, health records and financial transactions. Experts warn that legislation to control the misuse of such cards will take longer to implement than the cards themselves.
- Phone calls and telecommunications will become virtually free by 2005.
- Widespread use of large aircraft quiet enough to allow take-offs and landings throughout the night at airports in heavily populated areas will be implemented by 2010.
- Desktop computers will cost no more than the average weekly wage by 2000.
- Low-calorie foods that are as satisfying as full-calorie meals will be widely available within five years.
- There will be cures for inflammatory and auto-immune diseases such as arthritis, within a decade.
- Greater understanding of human nutrition will lead to *nutriceuticals* – foods containing health enhancing supplements – and *functional food* which reduce the risk of dietary heart disease by 2005.

The survey also highlights areas in which many scientists believe think current barriers will not be broken. Almost one fifth of the experts believe that new computer software applications will never be delivered by their development deadline and are incapable of meeting or exceeding customers’ expectations...”.

Published in The Daily Telegraph 1996

Is Cost Forecasting Really Helping the Decision Process ?

Report from the SCAF seminar, 12th February 2003
MoD Abbey Wood, Bristol

Another well attended seminar, is it the speakers, the topics or both?

Following the usual welcome and introduction, the opening paper “Are we helping or is it time to revisit the cost forecasting process” was presented by **Arthur Griffiths**, Vice-Chairman, SCAF. Arthur began his paper with some observations on the current failings with defence costing and what value cost forecasting could deliver to the decision maker through a revised process. The message was clear - keep it simple, overcome the constraints through regular dialogue with the customer, develop and refine the estimates on an evolving basis (not on demand), don't seek exactness where it's not possible (or necessary) and spend more time on analysis. Simple and dynamic spirals for smart acquisition.

Arthur was followed by **Philip Pugh** from HVR Consulting Services Ltd who discussed “Risk and Uncertainty: The generation and use of Confidence Limits”. Some of the matters for debate included, MoD requirements, purposes of an estimate, forecasting of risk, quantification and the granting of approvals. Philip clearly demonstrated that different applications required different types of estimate and that the “theory” of risk did not reflect the “reality” of risk. The figure demonstrating the level of risk eventuating during the average project was a good reminder not to forget the ‘unknown risk’. Philip concluded his paper with a series of questions to be addressed Questions requiring to be addressed including: What should the middle figure of a three-point estimate represent?, How is the treatment of risk to be matched to the purpose of the estimate?, How can detailed risk analyses be prevented from becoming self-delusive?, How comprehensive a set of risks are to be accounted for within three-point estimates? Maybe we need another SCAF seminar just to discuss these questions

Our final speaker was **Terry Proffitt**, Team Leader, DPA's Pricing and Forecasting Group/Cost Forecasting. Terry's paper entitled “Cost Forecasting – helping the decision process” gave us an insight into the MoD's use and maturity of risk analysis and risk management. There is a renewed emphasis in MoD on better use of three point estimates for project time and cost. Terry explained how there was new guidance on the Acquisition Management System available on the web (www.mod.uk) and how a number of projects had been independently assessed using a risk maturity process.

Exciting times were ahead and it will be interesting to see whether a “true level of uncertainty” will ever be identified or whether we will become self-delusive with all the analysis and fail to see the obvious.

SCAF Future Events

<p>Tues 13th May 2003 MoD Abbey Wood Bristol</p>	<p><u>Theme:</u> Data , Measurement and Cost Analysis</p> <p>Speakers</p> <ul style="list-style-type: none"> • The use of historic data and applicability to today's environment <i>Andy Nicholls, DPA, Pricing and Forecasting Group & Dale Shermon, PRICE Systems</i> • Should we use Price or Cost ? <i>Arthur Griffiths, HVR Consulting Services Ltd</i> • An approach to measuring the benefits of Smart Acquisition <i>Prof. David Kirkpatrick, University College London & Eric Lomas</i>
<p>Weds 11th June 2003</p>	<p>Chairman's Summer Reception</p>
<p>Tues 16th September 2003 MoD Abbey Wood Bristol</p>	<p>20th SCAF Annual Conference</p> <p><u>Theme:</u> Is Smart Acquisition Cost-Effective ?</p> <p>Speakers</p> <ul style="list-style-type: none"> • Vice Admiral Sir Jeremy Blackham, former Deputy Chief of Defence Staff (Equipment Capability) • Professor David Kirkpatrick, Defence Engineering Group, University College London • Tim Banfield, Director, National Audit Office • Bob Barton, Managing Director, Future Systems, BAESYSTEMS • Terry Proffitt, Team Leader, Pricing and Forecasting Group/Cost Forecasting • Neil Albert, Senior Vice President/General Manager, MCR Federal • Charles Draper, Director, Smart Acquisition (unconfirmed)
<p>Tues 18th November 2003 DSTL Farnborough</p>	<p><u>Theme:</u> Technology Refresh, Insertion or New Build ?</p> <p>Speakers</p> <ul style="list-style-type: none"> • To be confirmed

Events by Associated Societies

See below

Other events by Associated Societies

1st- 3rd April 2003 MoD Abbey Wood Bristol	European Aerospace and Eurospace Working Group on Cost Engineering. Further details available from Alan Baldwin at PFG-CFSware@dpa.mod.uk or francesca.giganti@esa.int
10th April 2003 1 Great George Street Westminster, London	Association of Cost Engineers, Seminar on Cost and Project Management for International Projects. Further details available from Info@acoste.org.uk
17th – 20th June 2003 Orlando, Florida, USA	International Society Parametric Analysts /Society of Cost Estimating and Analysis 4 th Joint Annual International Conference. Further details available from: lscea@erols.com
November 2003 Germany	PRICE Systems European Symposium. Further details available from: www.pricesystems.com

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