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CHAIRMAN'S ADDRESS



As I travel to London on the train for a meeting in MoD main building and an ACostE council meeting the sun is shining and it actually feels like

summer! Who would have forecast that we might actually see some sun this year? It has seemed to be wet and constantly overcast from New Year's Eve until now.

I was lucky enough to visit New Orleans this year where it was exceptionally hot. I have returned from the first International Cost Estimating and



Analysis Association (ICEAA) conference. ICEAA is the new association that has grown from the merger of SCEA and ISPA. For the historians, SCAF was originally the UK ISPA chapter.

This year's conference had more than 300 attendees which although huge compared to SCAF standards is low for this conference. There was a complete absence of DoD staff at the conference with discussion of the US austerity and sequestration being hot topics at dinner. There were more than 100 papers presented over the 4 days with tracks dedicated to training. It was a feast for the cost engineer eager to maintain their continuous professional development (CPD).

A highlight for me was a Keynote Address given by Karen Richey of the GAO (like our NAO) entitled "Audits are not always a bad thing". I approached

Karen as Chairman of SCAF and extended an invitation to present to SCAF if she came to the UK.

Dr Mark Gilmour and I presented two papers which are both unique and demonstrate our continued commitment to thought leadership and cost research while promoting SCAF at the same time; Behavioural Estimating - Observations on the Psychology of Cost Estimating and Cost Engineering Health Check - how good are your numbers?

It was a great event and an opportunity to continue personal and professional development. I hope more members of the UK cost community are able to attend in future. Next year ICEAA will be in Denver, if you can't get to Denver ensure that you attend our UK SCAF events thus maintaining your CPD.

Outside the conference I took the opportunity to educate myself about World War II hardware. If you have the chance I would urge you to visit the WWII museum, there are some great exhibits and it's air conditioned which means you can get out of that summer heat!



Details of all of all our events, together with our past presentations, are now available on a new SCAF website (www.scaf.org.uk).

Dale Shermon

SCAF Chairman

SCAF 2013 Annual Conference

“Cost Matters”

Tuesday 17th September 2013

The BAWA Centre, Filton, Bristol

In December 2012 the National Audit Office published its report titled “Observations on the Ministry of Defence Major Investment Process”. Earlier this year, the Cabinet Office Major Projects Authority published its latest report on the progress on major government programmes. The report includes a Red-Amber-Green assessment of each project. Although criticised in the media due its lack of assessment justification, the style and structure has been adopted by all government departments in analysing their own programmes. What is without doubt from these and other related government reports is the increasing influence that Cost Matters.

Our conference speakers have a wide and knowledgeable body of expertise and will provide an essential learning experience to the attendees.

Keynote Address – Chris Boardman, Managing Director, Military Air and Information, BAE Systems

- **“The National Audit Office Value for Money study on the impact of costing in government”** – Joe Perkins, Audit Manager, National Audit Office
- **“Cost-Benefit Analysis of Indicative High Level Concept Designs”** – Dr David Exelby and Chris Maughan, Managing Consultants, Decision Analysis Services Ltd
- **“Cost of Software Obsolescence”** – Sanathan Rajagopal, Senior Analyst, Cost Assurance and Analysis Service, Ministry of Defence
- **“Applied Value Analysis and Portfolio Management** – Steve Wake, Director, Steve Wake Projects Ltd and Chairman, Association of Project Management Planning, Monitoring and Control Special Interest Group
- **“New Methods for Assessing the Affordability of Force Structures”** – Stuart Taylor, Senior Analyst, Defence Science and Technology Laboratory
- **“Live Example of Applying a Model to a Portfolio of Programmes”** – Andy Nicholls, Principal Consultant, PRICE Systems and Director, ICEAA UK Region

Registration and Costs

Registration and Coffee will be available from 09.00. The conference will commence at 09.45. The cost for the conference is £150.00 per delegate. A 10% discount is available for group bookings of more than 4 delegates and a 15% discount is available for group bookings of more than 10 delegates. These costs include all refreshments, a buffet lunch and FREE attendance to all future SCAF organized events until August 2014.

Further details can be found on the SCAF website or by contacting Neil Morrill by email at: ndmorrill@dstl.gov.uk or call 023 9253 7271.

Letter from the Editor

By Arthur Griffiths, SCAF Newsletter Editor



Earlier this year, I was delighted to see that Stokes Bay, Gosport (cover images) was recognised nationally as being one of the top 10 picnic spots in the UK. With its wide open spaces and panoramic views of the Solent, it's a great place to relax, watch the ships pass by and enjoy a picnic (even the annual New Years Day swim draws the crowds). And, with the sunshine over the last few weeks it's been exceptional.

The summer also seems to be a time to publish interesting annual reports and this year is no exception. The Cabinet Office report on Major Government Programmes received some uncomplimentary comments in the press as did their recent review on the UK's Trident Alternatives. The Cabinet Office's Efficiency and Reform Group (ERG) (which encompasses the Major Projects Authority) works in partnership with HM Treasury and government departments to deliver efficiencies, savings and reforms on behalf of UK taxpayers. The group aims to transform the way public services are delivered, improve user experience and support UK growth.

There is much to be commended on the level of information that is now publically available and whilst there may be questions on the transparency of the assessments it is a good source for research. Reports and data can be downloaded from www.gov.uk/government/organisations/cabinet-office

This newsletter issue contains information on all the SCAF future events commencing with our Annual Conference in September where our **Keynote Speaker** will be **Chris Boardman**, MD Military Air & Information BAE Systems. In November, 14 companies/organisations have signed up to participate in our "Vendor and Service Provider Day". For attendees this provides a unique opportunity to view and discuss current products and capabilities for the costing community. During 2014, arrangements are being made for workshops in London and Bristol together with a summer reception and banquet. This issue also contains an abstract on "Modelling the Risk and Uncertainty of Inflation Rate Projections" – a white paper published by Technomics Inc.

Articles, letters or any other ideas are invited for inclusion in the newsletter. Please forward details to:

Arthur Griffiths

Editor, SCAF Newsletter

Email: editor@scaf.org.uk

“Quantitative Cost and Risk Analysis”

SCAF Workshop, 4th June 2013
Ashton & Lea Golf Club, Preston

SCAF held their June workshop in the Ashton and Lea Golf Club in Preston for the 4th concurrent year. As with previous years, the workshop was well attended and a large number of SCAF members travelled from all corners of the UK. The subject under discussion, Quantitative Cost and Risk Analysis, has been requested by many members over the past few years and the presentations demonstrated a sea change in thinking between the inception of SCAF in 1984 and now. The most noticeable change was the

inclusion of Schedule Risk Analysis and its integration into cost models; the application and thinking on Schedule Risk Analysis has matured significantly in the last decade.

The day started with a presentation from QinetiQ’s Technical Lead for Risk Management, Mike Holmes. In his presentation, entitled “Quantitative analysis: what is in a number?”. Mike tackled some of the failings in risk management practices and suggested improvements that could help overcome these failings. He concluded that better alignment of Risk Management, Cost Estimating and Project Controls disciplines builds a strong project core that amplifies the effectiveness and value achieved through risk management. This theme of a more joined up approach was considered further as the day progressed.

The second presentation was from Atkins Ltd and Ian Nadan and Katy Gough discussed “The practicalities of integrated cost and risk on a complex project.” This presentation looked at the strengths and weaknesses of integrating cost and schedule in the same model. Ian and Katy concluded that, in their experience of the project in question, a single model was very demanding and a simpler approach should be taken.

The third presentation was from BAE Systems (BAES) and Alan Jones and Frank Berry presented “‘Slipping and Sliding’ - A Simplistic Approach to Cost & Schedule Integration”. In their presentation, Alan and Frank discussed a technique they have developed and are rolling out across BAES. This technique is called ‘Slipping and Sliding’ and SCAF members were fortunate to be shown the first airing of this new technique applied to a specific example. BAES developed this technique on the basis that many Monte Carlo Toolsets can provide a view of Cost or Schedule Risk, Opportunity and Uncertainty Analysis (ROU), but few can provide an integrated view. They discussed that, in their experience, the famous Rumsfeld “Unknown Unknowns” can lead to the outputs from Monte Carlo simulation leaving the decision makers exposed due to the related gaps in the inputs. ‘Slipping and Sliding’ was presented as a simple technique that can be applied to help bridge the gap created by these “Unknown Unknowns”.

The fourth presentation was from CAAS’ Quantitative Project Risk Analysis (QPRA) Section Leader, Martin Seaman. During Martin’s presentation, entitled ‘Improving realism: Combining Cost and Schedule Risk Analysis’, he discussed Integrated Cost and Schedule Analysis in DE&S, specifically: why schedule matters?; why current techniques (in MoD) are inadequate; options for a solution; and DE&S’ chosen direction of solution. The guidance received from CAAS is always well received by SCAF members and this was no exception.

Martin discussed three potential options for integrating cost and schedule that CAAS had considered:

1. Schedule based integrated analysis;
2. Sequential analysis; and,
3. Spreadsheet based integrated Analysis.

CAAS discount Option 1 and considered Options 2 and 3 were both strong contenders. However, on balance Option 3 was considered to give the most value for the effort required, especially when considering that the majority of cost models in DE&S have been produced in Excel.

The penultimate presentation was delivered by BMT Hi-Q Sigma's Dr Paul Wood. In his presentation, entitled 'Integrated Cost and Scheduling', Paul discussed similar options to those presented by the previous presenters. Paul presented the statistical anomalies that exist if cost, schedule and risk information are modelled in an uncorrelated manner. These anomalies would lead to incorrect Confidence Limits being used in the decision making process. Paul's presentation ended with an insight into the softer issues that affect project management and the advantages of overcoming the barriers that appear to exist between different members of the project team (e.g. schedulers, cost modellers and risk managers).

In the final presentation of the day, Massimo Pica provided a window on NATO's cost and schedule risk analysis techniques. In his presentation, entitled 'Good Practice in cost and schedule risk analysis', Massimo covered specific issues of Life Cycle Cost estimation under risk and uncertainty conditions, including the reasons for integrating cost and schedule risk analysis as a result of actual lessons learned from good practice. Massimo's presentation confirmed that the techniques discussed by others throughout the day align with NATO's current thinking on the subject.

Overall, the day was a great success, so thanks to all who took the time to produce and deliver the excellent range of papers and to everyone who attended the day. Workshops, such as this, provide SCAF members with food for thought and provide and (sticking with the food analogy) will stir up an appetite for next year's workshops.

Dr Paul Wood

"SCAF Summer Reception"

Tuesday 2nd July 2013

Bath

What a day, what an event! The pictures say it all. A river cruise, a good meal and excellent company.



Modelling the Risk and Uncertainty of Inflation Rate Projections

By Dr Brian J Flynn and Peter J. Braxton



White Paper Abstract

Accurately modeling the risk and uncertainty of inflation rate projections remains a holy grail in defense cost analysis. Seemingly imponderable questions abound, such as what statistical distribution for inflation to use in Monte Carlo simulations, with what parameters, and over what time frame. Simply employing a triangular distribution, with endpoints taken as plus and minus a percentage-point or two from the purported mode, seems wholly inadequate.

This paper focuses on the estimation of probability distributions of inflation rate forecasts. Inferences are drawn from analyses of *survey-* and *market-based* measures of inflation expectations. *Survey-based* measures examine projections of inflation made by government officials and professional forecasters. *Market-based* measures, on the other hand, focus on expectations inferred from the prices and yields of financial instruments actively traded on Wall Street, such as Treasuries and, more recently, inflation derivatives. As Economists note, focus sharpens and credibility rises when prices are set by market agents with “skin in the game,” such as pension, insurance, and hedge-fund managers, who put their “money where their mouths are.”

- **Survey-Based Measures**

- The Survey of Professional Forecasters. Administered by the Federal Reserve Bank of Philadelphia, this prestigious survey provides explicit observations on long-term *mean* inflation expectations, and, importantly, enables construction of near-term *probability distributions* of inflation as well.

- **Market-Based Measures**

- Treasury “Breakevens.” The delta between nominal and real yields, *after* adjusting for risk and liquidity premiums, provides observations on the market’s expectation of inflation up to 30 years out.
- Inflation Derivatives. Zero-coupon swaps in this nascent, *laissez faire* options market provide data on the expectations of market players hedging against the risk of inflation. “Cap and floor” data enable the construction of inflation probability density functions based on the daily interaction of agents who buy and sell protection against rising and falling price levels in the macro economy.

These distinct but related areas of investigation yield different but complementary measures of *mean* inflation expectations, and, in two cases, legitimate measures of *variance*. Together, they enable the development of a range of scientifically-sound, historically-based, and *market-consistent* values to employ in risk and uncertainty analyses. These values, in turn, support estimation of realistic S-curves, in *then-year dollars*, for our life-cycle cost estimates.

Copies of the full paper are available by emailing: bflynn@technomics.net

SCAF Vendor and Service Provider Day

Tuesday 19th November 2013

The BAWA Centre

Filton, Bristol

The Society has been successfully organising themed workshops and conferences to discuss, disseminate and promote cost analysis and forecasting together with related topics since 1984.

In arranging the programme for 2013, it was suggested that we should organise a “Vendor Day” where the use and demonstration of cost estimating and forecasting, project control, risk management tools and services could be promoted to the interest of all members and attendees. In many of our seminars and workshops we discuss the applicability of acquisition and logistic tools to help the cost estimating process without actually demonstrating the tools themselves.

The SCAF management committee are therefore delighted to provide an opportunity for **vendors and service providers** to demonstrate their product and service capability by organising a vendor or showcase day. We have prepared a conference room where **exhibition stands** will be displayed with a section of the room set-aside for simultaneous small **group presentations** by vendors and service providers throughout the day.

The tangible benefits to attendees include:

- Exposure to current costing and cost related products and services on offer;
- Networking opportunities with other members of the costing community;
- Opportunity for one-to-one and group discussion during breakout sessions;
- Attend presentations of case studies;
- FREE entrance to event;
- FREE buffet and refreshments.

To register or obtain further information please contact the Society’s Secretary, Mr Neil Morrill on 02392-537-271, ndmorrill@dstl.gov.uk,

Future Events

SCAF Workshops and Seminars for 2013/14

- 17 Sep 2013** SCAF Annual Conference: “Cost Matters”, BAWA Centre, Filton, Bristol.
- 19 Nov 2013** “Vendor and Provider Day”, BAWA Centre, Filton Bristol. Consultants and Tool Vendors will be showcasing their products and services to an open forum event organised by SCAF. This is the only event in the UK that provides this opportunity to share knowledge and promote business.
- 04 Feb 2014** Joint workshop with the Defence Study Group of the UK Operational Research Society, Royal Institution of Naval Architects (New Offices), Northumberland Road, London.
- 01 Apr 2014** “Practical Examples of Cost Estimating and Analysis - The 2014 SCAF Cost Estimating Challenge and Training Workshop”, BAWA Centre, Filton, Bristol
- 03 Jun 2014** SCAF Workshop (theme to be agreed), Preston, Lancashire
- 01 July 2014** SCAF Summer Reception and Awards Banquet, date and venue to be agreed
- 16 Sep 2014** SCAF Annual Conference, BAWA Centre, Filton, Bristol

Other Related Events

- 09-10 Oct 2013** Association of Cost Engineers (ACostE) Annual Conference, venue and date to be confirmed.
- 10-11 Oct 2013** 25th Workshop of the European Aerospace Cost Engineering (EACE) Working Group, Centre National d’Etudes Spatiales (CNES), France. Further details available from Dave Lewis at eace@hotmail.co.uk
- July 2014** Joint SSCAG/EACE/SCAF workshop, Centre National d’Etudes Spatiales (CNES), Toulouse, France. It is intended that this event will coincide with the 2014 Toulouse Space Show.
- 2014** ICEAA Annual Conference, Denver, Colorado, USA www.iceaaonline.org

Networking
for the Cost
Estimating
and Analysis
Community

SCAF is not responsible for the content of any external websites published in this Newsletter



www.scaf.org.uk



Bridging relationships in cost estimating

For over 20 years the Society has sought to illuminate key issues in the analysis and forecasting of project costs—and to promote best practice within the cost forecasting community.

The Society provides a single point of contact for advice to those wishing to address key issues in the analysis and forecasting of costs and timescales of complex programmes.

Workshops and seminars are held at regular intervals throughout the year. A newsletter is published electronically 3 times a year.

Collaborative links with other societies has always been maintained and a library of relevant papers are available. A single annual payment at the Annual Conference entitles members to attend all the years' programme of SCAF events at no further cost. The Summer Reception is also provided free to SCAF members and their guests.

SCAF is committed to providing Continuing Professional Development (CPD) through the provision of its skills workshops and its support to Professional Development courses.

The Society is a Not for Profit organisation and continues to provide members with exceptional value for money.

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