



INSIDE THIS ISSUE

<i>Chairman's Address</i> 2	<i>SCAF 2018 Calendar of Events</i> .. 3	<i>Next SCAF 2017 Event, RUSI, London</i> ... 4
<i>Letter from the Editor</i> 5	<i>Report on Vendor and Service Provider Day Nov 2017</i> 6	<i>A Tale of Three Patrol Ships</i> 8
<i>SCAF Management Meetings</i> 10	<i>Other Cost Related Events</i> 11	<i>SCAF Management Contacts</i> 12

CHAIRMAN'S ADDRESS



The SCAF committee are always keen to hear feedback regarding the events we have organised; it's the best way to improve our society

and activities we organise. At the present time, the SCAF year has begun to follow a pattern. This was not a conscious effort by the committee but it has evolved into an annual cycle. It helps the members of the society anticipate what we are organising and enable them to consider presentations which they might want to share and when in the year it would be good timing for them.

So in general, the SCAF committee organise the following:

- **February** – a London regional workshop to encourage participation in the east of the country and capital;
- **April** – the SCAF challenge aimed at the younger, less experienced members of the society, with the objective of encouraging the next generation to experience some element of our competency;
- **June** – the Preston regional workshop aimed at encouraging our membership from the Midlands to participate;
- **July** – the SCAF summer reception and awards dinner aimed at networking and promoting the society. This event provides the opportunity to recognise the more mature practitioners of our community with awards both to highlight their capability and the society;
- **September** – the Annual Conference is the opportunity for the committee to invite speakers



to our premier event in London and attract key note speakers to talk to SCAF and enlighten the members regarding their thought leadership;

- **November** – a Bristol regional workshop to attract members from the west of the country from Industry and MoD Abbey Wood.

I would welcome any thoughts on this yearly cycle, is it a good thing? How could it be improved? What events should we add?

For the past few years we have held the summer reception and award ceremony at a hotel in Bath. This has been a small venue for a few members to gather, network and present awards to recognise technical excellence, innovation and quality in the previous year. It has slowly grown and this year we

have decided to try expanding to the Aerospace Bristol venue where the Concorde has now been rehoused in a purpose built hanger. We have hired the hall under the Concorde, where there will be the possibility to visit the exhibits and this unique aircraft.

As well as encouraging members of SCAF to attend with their

partners, we will be encouraging organisations to sponsor a table. We anticipate it will be a great event with a sit-down three course meal and the opportunity to renew old acquaintances.

Closer to home, our next SCAF workshop will be at the Royal United Services Institute (RUSI) London. A new venue for SCAF and one with a history dating back to 1831 when it was founded by the Duke of Wellington.

April sees the SCAF Challenge with a security theme to be held at the Aerospace Bristol venue. Good luck to the teams, come and join us; you may learn something new or contribute to the learning of the less experienced by networking!!

Dale Sherman SCAF Chairman

2018 SCAF Calendar of Events



08 Feb 2018 **Back to the Future – a re-appraisal of cost forecasting techniques, Royal United Service Institute, Whitehall, London**

This workshop will reappraise the classic cost forecasting techniques and ask questions of them regarding their application and use in the future. It will seek new approaches and reflect upon the need to conduct data gathering, cost analysis and new modelling methodologies. **Registration now open – please contact the Secretary Neil Morrill by email: ndmorrill@dstl.gov.uk or call 01980 955548**



24 Apr 2018 **The 2018 SCAF Cost Estimating Challenge and Training Workshop, Aerospace Museum, Patchway, Bristol**

The aim of this workshop is to provide an interactive training session in cost estimating through the presentation of a case study that has been conducted by professional teams from Industry, Academia and Consultants with the added benefit of top-level critique by senior figures in the profession. This year's theme is to estimate the likely security costs for the 2018 World Cup in Russia. **Please contact the Secretary if you are interested in providing a team for this event**

05 Jun 2018 **The Use of Cost and Schedule Estimating – are we making the best use of it? Ribby Hall Village, Preston, Lancashire**

Please contact the Secretary if you are interested in presenting a paper at this event



11 July 2018 **SCAF Summer Reception and Awards Banquet, Aerospace Museum, Patchway, Bristol**

This event will provide members and their partners with a chance to meet up with friends and colleagues and give us the opportunity to recognise and award members for their contributions to the Society over the year.

11 September 2018 **SCAF Annual Conference and Annual General Meeting, London (venue to be confirmed) Please contact the Secretary if you are interested in presenting a paper at this event**

Networking for the Cost Forecasting and Analysis Community



Next SCAF Event

“Back to the Future – a reappraisal of cost forecasting techniques”

Thursday 8th February 2018

Royal United Services Institute, Whitehall, London

Cost forecasting, as opposed to cost estimating, has been recognised as the discipline necessary to consider likely cost two or three decades into the future. While cost estimating is focused upon the here and now; the role of the cost forecaster is to foresee the funding requirement in the future. As a consequence the techniques applied are subtly different. The cost forecasting techniques result in gross hand-full cost estimates, rough order of magnitude or budgetary numbers with typically wide tolerance levels. Parametric models and analogous methodologies have traditionally been appropriate in the cost forecasting domain rather than detailed analytical, bottom-up costing. Is this still the case?

This workshop will reappraise the classic cost forecasting techniques and ask questions of them regarding their application in the future. It will seek new approaches and reflect upon the need to conduct data gathering, cost analysis and new modelling methodologies. Our speakers include:

- **Paul Marston**, Vice President, Defense Programs, MCR Federal LLC and **David Baggley**, Operations Director MCR Global UK “Cost Benefit Visualisation in an Operational Air Traffic Control Environment”
- **Antony March** and **Gary Collier**, Cost Assurance and Analysis Service, DE&S
- **Peter Tart** and **Colin Sandall**, Senior Consultants, QinetiQ “A Novel Emergent System Dynamics Approach to Through Life Cost Estimation”
- **Quinton van Eeden**, Management Specialist, Palisade “Optimising the cost of a portfolio of projects within a P3M investment environment”
- **Tim Brogan** and **Martina Sabova**, Project Engineering Finance Data Services, Jaguar Land Rover “Big Data – Before you can analyse you have to Standardise”
- **Alan Jones**, Est.i.Mat-A Ltd “Caveat Praebitor (Supplier Beware)”
- **Brian Tanner**, TANFORD Consulting “All at Sea”

Registration and Costs

This workshop is free to current SCAF members (which includes anyone who attended a SCAF workshop/conference since September 2017). Non-members are welcome to attend at a cost of £135.00 per delegate, with discounts available for group bookings. These costs include all refreshments, a buffet lunch and free attendance to all future SCAF organised events until August 2018 (subject to availability).

Registration and coffee will be available from 09.15. The workshop will commence at 10.00 am. A 10% discount is available for group bookings of 4 or more delegates and a 15% discount is available for group bookings of 10 or more delegates. Further details can be found on the SCAF website or by contacting the Secretary at ndmorrill@dstl.gov.uk or call **01980 955 548**



Letter from the Editor

Arthur Griffiths, SCAF Newsletter Editor

Firstly may I wish everyone a happy, healthy and prosperous 2018. I would also like to take this opportunity to thank everyone who supported the Society through their attendance and participation at our workshops and events during 2017 and look forward to seeing everyone at our events throughout the 2018 programme.

Well, the year has certainly started at pace. With many members enjoying a Christmas and New Year break of some two weeks, getting back to work became a chore for many. Our first committee meeting of the year was held on the 9th January and gave everyone the opportunity to reflect on an excellent 2017 and renewed enthusiasm in planning the 2018/19 programme.

Our Annual Conference last September at the prestigious QEII Centre in London was very well received by all the attendees who appreciated the outlook, easy access and facilities on offer.

It was a good year for the Society – we had just over 350 people attend the workshops and some 3,000 individuals visited our website some accessing the library for presentations on particular subject matters and others looking for relevant data and information. I am always amazed when we view the analytics on visitors to the website with information on the pages viewed and particular search criterion for information. We saw an increased website usage of 43% (average across Desktop, Mobile and Tablet devices) this year. The websites was also used by people from 66 countries across the world which clearly demonstrates the need to maintain investment and improvement in this side of the Society's operation.

Our first workshop of the year will be held at Royal United Services Institute (RUSI), London (a new venue) and the issue of estimating and forecasting techniques and their use for future budgeting and forecasting could not be more topical.

In other news, the autumn statement by the Chancellor came and went without much fanfare or surprise, inflation is rising – austerity practices are still being effected and Brexit seems to taking the blame for everything. The immediate big issue for Defence will one of affordability of foreign procured assets such as F-35. Many of these would have been budgeted at an exchange rate which is now changed significantly and added some 20-25% to the procurement costs.

Finally, my thanks go to my daughter Kate for this edition's cover picture taken in the Royal Albert Hall awaiting show time. I have kept the other picture of her on the springy mesh floor at the centre of the ceiling for later publication (maybe).

Please forward any articles, letters or any other ideas for inclusion in the newsletter to: Arthur Griffiths at Editor@scaf.org.uk

Report on Vendor and Service Provider Day

24th November 2017

The BAWA Centre, Filton Bristol

The event was opened with a warm welcome from **Dale Shermon**, SCAF Chairman. He encouraged the attendees to visit the exhibitor stands and to take the unique opportunity to see current innovations in the field of cost, risk and logistic modelling. It was also an excellent chance to hear the lessons learned from experienced practitioners and analysts through a number of concurrent presentations that ran throughout the day. Our speakers for the day included:

Speaker	Presentation Theme
Doug Oldfield , Palisade	“Monte Carlo or Bust? @Risk and the power of quantitative risk analysis in Microsoft Excel”.
Paul Adams & Renaud Durand , VenDigital	“The Final Frontier – delivering cost engineering to high complexity & low volume asset”.
Dave Tween , PRICE Systems	“Systemisation and implementation of should cost engineering solution in JLR purchasing”.
Dale Shermon , QinetiQ	“Complex Decisions: a technical due diligence case study”.
Steve Robinson , Galorath	“A presentation on a case study by Galorath”.
Andy Mills , Arke and Spencer Woodford , Burchelli	“Mission Systems Software Cost Forecasting in an Airborne Environment”.
Paul Marston , MCR Federal	“An Integrated Approach: Function Point and Cost Analysis”.
Dr Paul Baguley , Cranfield University	“Cost Engineering Results at Cranfield”.
Risk Decisions	“Presentation and Demonstration”.

We would to thank all the speakers for their excellent presentations. The exhibition stands were displayed in two large halls with plenty of room for discussion, viewing and networking. The Society would like extend their thanks to the following organisations for their support to the event. Each of the organisations had provided a stand manned by industry experts and offered one-to-one consultation sessions for attending delegates.



The “Vendor Day” was advertised as an event where the use and demonstration of cost estimating and forecasting, logistics, project control, risk management tools and services could be promoted to the interest of all members and attendees.

- It was a **FREE** event to attend and gave the delegates tangible benefits including:
- Exposure to current costing and cost related products and services on offer
- Opportunity for one-to-one discussion during breakout sessions
- Group discussion during plenary sessions
- Hear case study demonstrations on lessons learned and benefits
- Network with other experienced cost analysts and other members of the costing community
- **FREE** buffet and refreshments.

The feedback received from attendees and exhibitors was extremely positive and it is intended to hold a similar event in the future.

A Tale of Three Patrol Vessels

By Brian Tanner

First, much has been written about the prices being paid for the Batch 2 River Class Offshore Patrol Vessels (OPV). Displacement 2,086Te. To recap:



In December 2014 a contract for three OPVs (Forth, Medway & Trent) was let for £348M; Hansard for 12th November 2013 records that the contract would be based on a firm price offer including initial spares and support, i.e. the typical inclusion in a first of class contract.

This was preceded in March 2014 by a £20M contract for Long Lead Items, this being extended to the main contract according to a Freedom of Information

statement on BAE contracts.

In December 2016 a contract for a further two OPVs (Tamar & Spey) was let for £287M. The contract also includes support for all five Batch 2 vessels. While not specified, it can be inferred that the support will be for five years in keeping with previous contracts.

Inflation between 2014 and 2016 was 2.3%, so £348M becomes £356M or £110M per ship if allowance is made for First of Class costs. The inference being that the support aspect of the second contract is some £67M which has to be compared to the £22M contract placed in January 2014 to support the Batch 1 River Class OPVs for five years during which time the vessels will be decommissioned – HMS Severn having been decommissioned on 27th October 2017.

Alternatively, the Hansard statement also stated that “The marginal cost of these (first three) ships, over and above the payments the MoD (Ministry of Defence) would anyway have had to make under the TOBA (Terms of Business Arrangement) is less than £100 million” and on a usual split of 50% labour, 50% material an assumption is that in more usual times the cost of the three ships would be some £200M. In 2016 ECs that is £205M or £68M per ship, leaving some £148M as extra ordinary payments.

The delay in ordering the Type 26 frigate led to the contract for the fourth and fifth vessel, presumably with provision for further extraordinary payments. Assuming the same average cost as the first vessels leads to some £150M to be accounted for inclusive of support for all five vessels. In January 2014, following MoD purchasing the vessels, the support contract for the Batch 1 vessels was reported to be £22M for five years. A crude estimate would suggest that support for five vessels would be £37.5M for five years.

According to apparent quotes from Government papers, the TOBA was a guarantee of £250M per year and was apparently abandoned and there is no public domain information on the split between the OPV costs and the additional costs of the skills retention. So the best that can be said is that the true average cost of the OPVs is in the range £68M to £110M.

A second consideration, are the Spanish contracts placed in July 2006 for Buque de Acción Marítima (BAM), which are offshore patrol vessels of 2,860 Tonnes full load displacement.



The first contract for four BAM was placed with Navantia on 31st July 2006. The original contract price was variously reported as €340M or €350M. A Spanish audit report lists the original contract price as €352M. A later audit report lists the final contract price as €498M and project cost as €509.9M.

Navantia were also awarded a €23.4M contract for the overhaul of eighteen Oto Melara 76/62 guns and purchase of new control systems, some allocated to the BAMs. There was also a reported €15M for Government supplied electronic warfare systems. These costs may be additional to the €509.9M reported as the audit appeared to deal exclusively with the Navantia contract.

While the final cost is judged to include inflation, the report indicates that the original budget and contract price was underestimated due to incorrect and understated Navantia labour rates being used. A more realistic indication of price/ cost is to normalise the final costs. The final prices of €497.95M and €509.9M when returned to initial contract conditions using the OECD Spanish PPI statistics become €458.5M and €469.5M, some 30% greater than that originally reported.

At 2016 ECs this is €512M and €525M respectively.

A second BAM contract for two vessels was placed on 7 May 2014, the indications being that this was to maintain shipyard skills while Navantia sought new orders. The price has been as €333.48M and €400M. Based on information on the first contract, the first price is inferred to be an interest free loan from the Ministry of Industry and Defence repayable without interest once the Armada begins to pay instalments, typically at launch of the first vessel.

At 2016 ECs this is €384M.

Our third consideration is the Dutch order for four Patrouilleschepen (Patrol Ships) of 3,750 Te Full Load Displacement.



The budget for these ships was authorised in late 2007 at an approved cost of €467.8M. On 20th December 2007 a contract for €240M for the construction of the ships was placed with Schelde Naval Shipbuilding by the Netherlands Defence Material Organisation (DMO). In parallel the DMO was awarded an associated €125M contract for the development, integration and supply of a sensor and communication suite, fully integrated into a modular mast structure, for installation aboard the four ships. The DMO was responsible for the supply, test and

integration of the sensors, weapon systems and command systems (SEWACO) and also procuring the weapon systems to be supplied as Government Furnished Equipment.

For the weapon systems the DMO placed contracts with Oto Melara for the supply of four 30-mm Marlin weapon systems and eight 12.7-mm Hitrole naval turrets to be installed on the four ships. The total value of the two contracts is quoted as more than 12 million euros. The ships main armament is Oto Melara's ubiquitous 76-mm naval gun mount. However, the Dutch are acquiring these second-hand from the Danish navy.

Another DMO submission relates to investment for the IFF systems on the patrol vessels and “involves an amount of less than €25 million (2009 price level)”. This amount is reported to be charged to the defence budget in addition to the budget for the 'Patrol Vessels' project.

Annual finance statements for the project rise from the initial budget of €467.8M to €529.9M, and when the profile is compared to OECD PPI indices, the inference is that these are Then Years figures. Normalising the budget to contract date produces a cost of €505M. At 2016 ECs this is €529.8M.

So to compare average prices at 2016 ECs:

- Batch 2 River Class OPV: £110M/ £68M each; £52.7K/Te/ £32.6K/Te
- Spanish Buque de Acción Marítima (BAM): €128M/ £101M & €131M/ £113M; £35.3K/Te & £39.5K/Te
- Dutch Holland Class Patrol Ships: €132.4M/ £114M; £30.4K/Te

The inference being that the Batch 2 River Class OPVs are some 60% more expensive than comparable vessels due to the need for skills retention in the warship building industry.

SCAF Management Committee Meetings 2017/18

Date	Venue	Focus
3 rd Oct 2017	ATKINS, Aldershot	2017/18 Programme and November workshop
7 th Nov 2017	QinetiQ, Bristol	Ideas for SCAF Challenge
5 th Dec 2017	ATKINS, Aldershot	February workshop
9 th Jan 2018	QinetiQ, Bristol	Finalise SCAF Challenge and Annual Conference Themes
6 th Mar 2018	ATKINS, Aldershot	Discuss Award Dinner nominations and annual SCAF budget
15 th May 2018	ATKINS, Aldershot	Annual Conference, final details for Awards Dinner and Committee nominations, confirm subscription amounts
10 th Jul 2018	QinetiQ, Bristol	Annual Conference final details
2 nd Oct 2018	ATKINS, Aldershot	Programme and November workshop

Tell Us What You Would Like

The committee would welcome any suggestions on particular topics that can be developed for debating at future workshops or for round table/panel discussion. We would also welcome any comments on changes or otherwise you might like to see to the workshop structure and content.

Please forward all comments to our Secretary Neil Morrill who can be contact at ndmorrill@dstl.gov.uk or call 01980 955 548.

Please also remember that the committee works for the members and will do their utmost to address any issues raised to the benefit of the Society.

Many thanks for your support

SCAF Corporate Membership

Are you a company that sends 5 or more staff to any of our workshops? There are discounts available for block bookings with further flexibility offered for Corporate Membership. Further details can be obtained from the SCAF Treasurer, Dave Hedley email: SCAF.Treasurer@gmail.com or call 01252 738 562

**Other Related
Events**

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

23rd-24th Jan 2018	14 th NATO Life Cycle Management Conference, Parker Hotel Brussels Airport (Formerly Golden Tulip), Brussels, Belgium. For contact details please see page 14
25th April 2018	Association of Project Management Conference, The Barbican, London. Please see www.apm.org.uk for further details.
12th-15th Jun 2018	International Cost Estimating and Analysis Association 2018 Professional Development and Training Workshop, Phoenix, Arizona. Please see www.iceaaonline.com for further details.
11th-13th Sep 2018	The OR Society – OR60 Annual Conference, Lancaster University, Bailrigg, Lancaster. Please see www.theorsociety.com for further details

Networking for the Cost Forecasting and Analysis Community



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 4 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 self-funded and a Not-for-Profit organisation that continues to provide its members with exceptional value for money.

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