



Spring 2011 Vol. 30 No. 2

PARAMETRIC WORLD

A Periodical of The International Society of Parametric Analysts

IN MEMORIAM



Peter Korda

August 16, 1927 — January 19, 2011

page 4



Antonina (Nina) Tahir

August 5, 1941 — February 10, 2011

page 5

INSIDE THIS ISSUE

Chairman's Address 3
 Ask A Parametrician..... 6
 2011 International Board
 of Directors Elections 8
 Membership Report 9

2011 Joint ISPA/SCEA
 Conference..... 10
 CPP News..... 18
 European Perspectives 19
 Secretary's Report 20

Chapter News 21
 Calendar of Events 22

PARAMETRIC WORLD

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LETTER FROM YOUR EDITOR



Before we printed the Winter issue of *Parametric World* we were saddened by the passing of not one, but two, of ISPA's most honored members. **Peter Korda** and **Nina Tahir** had worked together at the legendary PRICE Systems Los Angeles (Hollywood) office where many West Coast members learned their craft. Peter served as PRICE Systems West Coast Manager and Chief Engineer. He also was, de facto, the principal raconteur. (I confess that at ISPA Conference dinners I usually connived to have Peter and Marianne sit at our table.)

Nina was my predecessor as editor and the periodical you are reading testifies to her excellence. Through her job as L.A. Office Manager, Nina established bonds with the worlds of PRICE and ISPA. As time went on she became the soul of ISPA by keeping us all linked together.

By coincidence both Nina and Peter were honored in the same year (1993), Peter as the Freiman award winner and Nina as the Burbridge Service awardee. So it is fitting to preempt the Historian column for tributes to Peter and Nina. Hank Apgar has written a remembrance for Peter and Madeline Ellis has written one for Nina. However, *PW* has received so many messages of remembrance that one issue won't contain them all. So we will continue the tributes in future issues.

Meanwhile, this issue also focuses on the upcoming ISPA/SCEA Conference in Albuquerque. We recapitulate the 'What, Where and When' of the Conference. We also list the entire set of workshop papers by track.

Finally, here's a word to whet your appetite about Albuquerque. Either before or after the Conference, you may want to take a day excursion around the area. No car? No problem. Above and beyond conventional bus tours, The New Mexico Rail Runner Express provides frequent train trips North to historic Santa Fe (or South to Belen for that matter). They also provide rail/bus overnight packages to Taos.

Charles Hopkins

Editor, *Parametric World*
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By JASON DECHORETZ

Fellow ISPA Members,



Yes it is that time of year again. Spring is HERE! So that means it is time to gear up and make the final arrangements for our annual Joint Conference and Training Workshop. I've met with the Co-Chairs (Messrs. Richard Harwin and Mel Etheridge) and they have outlined a very robust set of technical and training presentations. This year the training material has been further improved to reflect the latest developments in our industry's state of the art (as captured in the Parametric Estimating Handbook) and reflect the improvements made to the Cost Estimating Body of Knowledge (CEBoK). We have made great strides to make the training material from ISPA and SCEA more integrated and complementary. As a result there will be strong competition for attendees from the new training tracks. To help accommodate this we will continue with the tradition of only training on Tuesday and will have a "2nd showing" of what we expect to be the most popular technical presentations. Our venue for 2011 is brand new for our two Societies: Albuquerque, NM.

- Albuquerque's airport has many direct flights (several from discount air carriers) and is one of the easiest in the country to navigate from a logistics perspective,
- The hotel is located downtown and as a sibling represents the tallest building in the city,
- A discounted group rate is still available to make this collaborative experience with your colleagues, and
- Food offered by the hotel during the site selection was impressive (and not just Southwest style) and there is a large selection of restaurants within easy walking distance.

The Program Co-Chairs have informed me that the number of abstracts submitted this year is the greatest on record and reflects a tremendous range of topics. So please see Rich's article and visit the ISPA website for more details.

Normally I would take this time to give you a rundown of ISPA's last Board of Directors meeting. I'll summarize that topic by saying our Society is in **very good condition** with respect to 1) the vitality of efforts defining and promoting parametrics and 2) the quality of the Society's products (publications and technical material). As you know this type of credibility and quality happens neither by accident, nor overnight. It is the result of dedicated

contributions made by hundreds of ISPA members over the past three decades. It is with a heavy heart that I note the passing of two of those members who have dramatically helped create the ISPA we know today: **Ms. Nina Tahir** and **Mr. Peter Korda**. In this quarter's issue of *PW* you will find articles about Nina and Peter. Please enjoy this opportunity to relive their success and contributions, they will be missed.

As always Ms. Madeline Ellis and Mr. Charlie Hopkins (your *PW* Editors) and Dr. Stephen Book (your *JCAP* Editor) are always looking for written contributions from you and if you have any ideas for improvement please forward them along.

I'm very excited to announce that the **2012 ISPA/SCEA Joint Conference and Training Workshop** will be held 14–16 May in **Brussels, Belgium** (also a first for a conference location). Many of you know Brussels as the Capital of Europe. It is the Seat for the European Commission, home to the European divisions of multinational companies, but also the headquarters for NATO, EUROCONTROL and many European companies. This conference will also be supported by selected European-based Societies (e.g., Society of Cost Analysis and Forecasting (SCAF) and Dutch Association of Cost Engineers (DACE)). As has been our custom, the Space Systems Cost Analysis Group (SSCAG) and the European Aerospace working group on Cost Engineering (EACE) will host their joint meeting during the 2nd half the week. Get your passports in order and start planning your paper topics! Additional details will be announced at the 2011 Conference.

I look forward to seeing you in Albuquerque, please hunt me down and let me know how you like your Parametrics: Red or Green (inside joke for those who will be attending!). Seriously, please find me and let me know what you like about ISPA but more importantly what improvements you would like to see made. As always you can reach me at the contact information below.

Finally, this is my last *PW* article as Chairman of ISPA's Board. I have really enjoyed serving you and working with my fellow Board members.

Jason Dechoretz

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IN MEMORIAM: PETER KORDA

BY HANK APGAR



I met Peter Korda in the spring of 1978, when I enrolled in the RCA PRICE Hardware class as my first step toward becoming a parametric cost estimator. Peter's Hollywood office and classroom combination was, in his own words, the former location of Doris Day's dressing room. We built a strong friendship, lasting

several decades, based partly on our mutual admiration for old cameras; Peter introduced me to the vintage movie camera stores near Hollywood and Vine, just one block from the RCA office building.

Peter was born August 16, 1927, in Hungary. He died January 19, 2011 at home in Los Angeles. He is survived by his wife, Marianne, and by his children.

Peter had earned degrees in Electrical Engineering and in Mechanical Engineering. He was the holder of seven US patents for magnetic recording devices. As one of the pioneers of Frank Freiman's suite of PRICE Models, Peter helped introduce parametric analysis to our industry. Peter opened the Los Angeles office of PRICE Systems in 1976 and was manager there until 1990; earlier, he had worked for RCA in Van Nuys.

Supporting Galorath Incorporated from 1993 until 2009, he was a primary architect of the SEER-DFM mode; this took parametric estimating down to the factory floor level for the first time. Peter also designed the SEER-IC (Integrated Chip) model, and he helped evolve the SEER-H model. Peter was both an ISPA and a SCEA member. In 1993, he was awarded the ISPA Freiman Award and the year before was named the 1992 ISPA Parametrician of the Year. He also served on the ISPA Board of Directors.

Bruce Fad (PRICE Systems) remembered Peter for " ... (1) the strength of his convictions that good estimating required good technical knowledge of the goods or services being estimated, (2) his willingness to defend his estimates when questioned by anyone, and (3) his passion for his work. Peter's personal life would fill three or four lifetimes for most of us. He also had the rare ability to find humor in setbacks, including his own. Peter laughed as hard as he battled. I am grateful that I had the chance to work with Peter and learn from him."

Karen McRitchie (Galorath) remembers that: "[Peter was] a very funny person with an irreverent sense of humor. He had a great story about his Hungarian accent. He said that he was really from New Jersey, but went to the Berlitz School

of Foreign Language to learn how to speak with a Hungarian accent. Ever since he did that, his career really took off. He also developed a 'gag' cost model that did not ask you to enter any data, but rather asked you to 'think' about what you wanted to estimate. This cost model would use the latest technology in mental telepathy and artificial intelligence to predict the cost for you. Sadly, Peter always complained that parametrics had been a complete flop. I never really understood why he felt that way, but I guess he thought it should be more ubiquitous. Peter was a pioneer in what is now the industry of parametric cost estimating."

Seb Botta (Sikorsky) remembers "... my first meeting with Peter Korda was during the early 1980s when I was on an assignment for my company in the Los Angeles area. Peter graciously offered his facility and expertise to assist me in completing my project. During that time I came to know Peter, Nina Tahir, Claude Wilton and Fred Coble both on a professional and personal basis. Since that time, Peter has been a wonderful friend, a valued peer, and treasured mentor. Peter was an excellent engineer who always stressed that parametric estimating was much more than executing computer models and required a deep understanding of the underlying physical characteristics and processes of our estimating projects. It is a lesson that I have practiced throughout my professional life, and I thank Peter for having the wisdom and foresight to instill such an important concept."

Roy Summers (former PRICE Systems) remembers that: "Peter Korda was pure enjoyment with an accent. On occasion I visited him at his beautiful home with a swimming pool that he referred to as his "cement pond." There I enjoyed seeing his antique collections that were mostly obtained at Swap Meets (another joy of his life). To Peter, there was no in-between. It was either "Beautiful" or "A Piece of Crap" ("Crap" being my substitution). This attitude, along with his technical knowledge and common sense, produced an enormous contribution to the success of PRICE Systems and cost estimating as a whole. His presence will be greatly missed by the entire cost estimating community and everyone else who knew him."

In an early edition of *Parametric World*, Peter defined his cost estimating ideology under the banner 'Principles of Estimating,' which he defined as follows:

- Estimates are made by people, not by models. We should critique the model's behavior, not its accuracy. Models help us establish credibility, consistency, and auditability.

Continued on page 5.

IN MEMORIAM: NINA TAHIR

BY MADELINE ELLIS



I first met Nina Tahir in 1981 along with Peter Korda, Claude Wilton and Fred Coble, after I returned from 2 weeks of PRICE H training in Cherry Hill, New Jersey. Most of us on the West Coast got used to hearing the cheery greeting from Nina "PRICE Systems". If someone was not available in the West

Coast office to assist with our problem, Nina always found someone else to help us. She was with PRICE, in charge of marketing and sales for the West Coast, until late 1996.

Nina grew up in Los Angeles and graduated from Belmont High School. Prior to coming to PRICE Systems, she spent more than 15 years as an executive secretary at Douglas Aircraft in Long Beach and at Hughes Helicopter.

Nina was a member of the ISPA International Board of Directors for 6 years in the 1990s. She also served as Editor of *Parametric World* for a number of years in the 1990s. In 2004, we were able to convince her to return as Editor, once again. She is responsible for the outstanding quality of *Parametric World*.

In 1992 the ISPA Conference was in Munich, Germany. Nina and I were both on the Board of Directors and we travelled around Europe together for more than 2 weeks before and after the Conference. Even though it was her first trip out of North America, she was willing to be adventurous. We purchased Eurail Passes, bought a train schedule, travelled with no reservations and sometimes slept on the train at night. We went to several places in Austria and Germany and then Florence and Paris. It worked out so well that we did it again in 1996 when the Conference was in Cannes.

Most recently she served on the Southern California Chapter Board of Directors and was there to greet all the attendees as they checked in.

Jason Dechoretz, ISPA Chairman: *"Nina was a very kind and happy soul who always looked first to help others and ISPA before looking to her own goals. She made significant contributions to our career field, the professional image of ISPA, and most importantly the camaraderie we all enjoy."*

Kurt Brunner, President – ISPA Southern California Chapter: *"Nina was a bright spot in all our lives who made the world a better place. She was always supportive, cheerful, and kind*

while giving selflessly of herself in volunteering to tackle the most ominous tasks in support of ISPA. Her suggestions, contributions, and loving personality have made a lasting impression and will be long remembered."

Bruce Fad, PRICE Systems: *"I first met Nina at the 1981 ISPA conference in San Diego. It was hard not to notice her outward beauty. She had just joined the PRICE team of Peter Korda, Fred Coble, and Claude Wilton in the Hollywood office. Nina started as the office Administrative Assistant, but before long demonstrated the interpersonal skills for marketing. Most of her time with PRICE was in the marketing and sales capacity. From 1992-1994, I was fortunate to be both Nina's co-worker and neighbor in what was by now the West Los Angeles PRICE office (corner of Wilshire Blvd. & Bundy Drive). During this time, I learned firsthand that Nina was a more beautiful person inside than she was outside. She genuinely cared about every person she knew and every PRICE customer with whom she had contact. She knew the names of customer's children, grandchildren, spouse/significant other; if you were a customer that dealt with Nina, she probably sent you at least one birthday card. If you were a trainee staying the week in LA, she made sure you knew the best places to eat and visit and the places to avoid. Nina Tahir was a wonderful colleague and friend to many and I am glad I was among them. More than anything else, she was a consummate ambassador of humanity."*

Janine Faris, Mitre: *"Nina and I served on the Board of Directors together and we also collaborated on different ISPA efforts over the years. Nina gave many years of selfless service to ISPA. She was very intelligent and capable, and above all she was a beautiful soul. I am very saddened by her passing, and I will miss her. Vaya con Dios, Nina."*

Nina is survived by 2 brothers, her 3 children: Ken, Kevin and Robin, and by her granddaughter Rachel.

Peter Korda Memoriam: Continued from page 4.

- Information is required before we can develop the estimate. A model can be a learning device that helps to develop measures of product complexity and organizational performance.
- All estimates are based on comparisons. We compare what is planned to what has been observed and quantified. Consistent judgment is the key to credible estimates.

I have tried to measure up to Peter's ideals throughout my parametrics career by following his ideology. Peter is truly one of the Giants of our Profession.

EDITED BY JOSEPH W. HAMAKER, PhD, CPP (JOSEPH.HAMAKER@TMGI.NET)



Do you have a knotty cost analysis problem? Something that you have been wrestling with but don't feel you know the best practice answer to? Well our **Ask a Parametrician Q&A** column is an opportunity for you to get considered answers from senior cost analysts. It is an especially good opportunity for

more junior level analysts to get their difficult questions addressed by the top experts in our field. So send me your best conundrum to the email address below. I will select a question, get it answered by an expert and feature it with the answer in the next issue of *PW*. Come on! Let's see if you can stump our experts or if they can prove their mettle by answering your challenging questions.

As I mentioned in the last column, it was suggested to me that we turn this column around for a few issues to allow more experienced analysts to ask the questions and less experienced analysts to provide an answer. So for this column, Charles Hopkins, one of our most experienced analysts provided the question:

"We 'know' intuitively that, while hardware complexity is difficult to quantify, it is nonetheless a major cost driver. That being the case, how can we get our hands around this complexity? This is almost certainly a multi-part question, because if I am trying to model complexity I need to resolve a range of issues such as: What drives hardware complexity? Which factors are dominant? How can we quantify hardware complexity? Is there software analog to hardware complexity?"

I asked James Johnson, now working in the Cost Analysis Division at NASA Headquarters to respond to Charlie's question. James, while young in years, is long on cost analysis experience and 'savy' as I think you will see from his very well thought out answer. James' answer is:

"In order to get our arms around complexity, we do have to resolve a wide range of issues. To make matters even more complicated (pun intended), a large amount of subjectivity sometimes needs to be dealt with when determining complexity – even when that complexity is based off 'hard' technical parameters. One of the simplest approaches to take when attempting to quantify hardware complexity is to try and make a comparison to a previous analogous system. However, although this approach is simple, it is not nearly as detailed as attempting to quantify hardware

complexity by examining various technical factors. Since hardware complexity is a major cost driver, the analyst should pay particular attention to how this complexity 'factor' is determined. The data available to the analyst on the hardware system, as well as his/her available time to create the estimate may ultimately play a major role in his/her final choice of how to quantify the level of complexity in the hardware system.

To determine which factors are dominant when attempting to quantify hardware complexity, it is first important to understand what type of hardware system is being built. Is it a wheel and track vehicle, an aircraft, a ship, a spacecraft? The analyst should then be able to start hypothesizing a set of technical factors that link to the hardware complexity level. In the example of a spacecraft, the analyst might hypothesize that materials selection is a good indicator, especially if the spacecraft was attempting to use new composite materials previously unused or untested. Although the analyst may initially hypothesize that number of piece parts in an assembly is a good indicator of hardware complexity, this number may be unknown, or highly uncertain. Thus, if the analyst finds himself/herself estimating this number of piece parts in order to determine hardware complexity, that estimate itself needs a basis, and could ultimately contribute to a high level of uncertainty in the final determination of hardware complexity level. It would seem to me that the best factors to use for determining complexity are those that the analyst has data on. Unfortunately, these factors may not be dominant, per se, but basing the determination of hardware complexity on the underlying data may have advantages over a complexity determination that is based on a dominant factor that does not have any supporting data.

High level requirements, sometimes known as "level 0" requirements should also be understood as a part of the process of determining hardware complexity. Typically, analysts have relied on design descriptors, operating parameters, and other technical characteristics as 'hard' parameters from which to determine hardware complexity level. Other 'soft' factors are also widely used, such as "technology readiness level" (TRL). I consider these factors to be 'soft' since they themselves are an attempt to place a quantitative value on a qualitative assessment. Although TRL is a widely used it is essentially an attempt to translate technology maturity into an easy to understand scale. The process of determining TRL level itself, could be considered analogous to determining hardware complexity. One engineer's TRL rating is not necessarily the same as all

Continued on page 7.

Continued from page 6.

others, even though TRL is widely used and accepted by both the estimating and engineering communities. I have found that TRL often includes bias, much the same as an engineer's rating of complexity level. Therefore, analysts should look to both 'hard' and 'soft' variables when quantifying hardware complexity.

Software cost estimating is not exactly the same as hardware cost estimating. However, there are probably good analogs to the idea of hardware complexity in the software arena. Cyclometric complexity might be considered a good analog to hardware complexity, and although it is not always used, it has been around for quite some time. It essentially attempts to determine the number of independent linear pathways in the code. This complexity rating may not be ideal, and many cost estimating handbooks provide factors for analysts to use when determining software complexity. For example,

the Air Force, in their Software Estimation, Measurement, and Metrics states that, "complexity judgments are domain-specific and include factors such as data communications, distributed data processing, performance, transaction rate, on-line data entry, end user efficiency, reusability, ease of installation, operation, change, or multiple site use." They go on to say "complexity is a function of size..." (lines of code). Of note, they also place a high degree of emphasis on the need to "continuously measure, track, and control" complexity.

So there you have it for this edition of "Ask A Parametrician." Please keep those good questions coming to: **joseph.hamaker@tmgi.net**

JOSEPH W. HAMAKER, PHD, CPP



Albuquerque 2011

2011 JOINT ISPA/SCEA CONFERENCE

June 7 – 11, 2011

Reservations

There are two ways to register in advance. Online, reservations can be made by the following link: https://resweb.passkey.com/Resweb.do?mode=welcome_ei_new&eventID=3229958

Be sure to choose 'Attendee' in the guest type drop-down menu. Reservations at the government per diem rate can be made by clicking the link above, choosing 'I have access code' from the guest type drop-down list, and entering 'Govern' as the access code. Show a valid Government ID or travel orders upon check-in.

You can also make reservations by calling the hotel at 505-842-1234 or 1-800-233-1234, and requesting the 'ISPA/SCEA Conference'. The room rate is \$161 per night which includes wireless internet access. Please take advantage of any corporate rates your company may offer in addition to the conference rate.

Deadline for Award Nominations: June 1

The Awards Committee is now soliciting nominations for ISPA's society awards described below. You must be an ISPA member to nominate a candidate. Nominations will be verified and reviewed by the Awards Committee and final approval will come from the ISPA Board of Directors. Nominations must be submitted not later than **June 1, 2011**.

- The **Frank Freiman Award** is our highest honor and is presented to an individual who has made outstanding contributions to the theoretical or applied aspects of parametric modeling or cost estimating, promotion of parametrics, or applications of parametrics over a significant amount of time. A Freiman candidate is expected to have left a legacy to the profession for at least five years and can receive the award only once in a lifetime. This award was named to honor Frank Freiman for his pioneering work in the development of parametric models and for his role in the founding of the Society. The recipient need not be an ISPA member. The recipient may qualify for this award only once in a lifetime.
- The **Clyde Perry Parametrician of the Year Award** is presented to an individual or group who has made outstanding contributions to the profession of parametric cost analysis during prior years, but for a minimum of two years. This award typifies a leader in the activities

of practicing or promoting the use of parametrics. This award was renamed in 2004 to honor Clyde Perry, an ISPA Founder. The recipient need not be an ISPA member. The recipient may qualify for this award only once in a lifetime.

- The **Keith Burbridge Service Award** is presented to a Society Member or participating group who has provided substantial volunteer service to ISPA in a manner supporting the principles and goals of the Society. This award was renamed in 1996 to honor Keith Burbridge, an ISPA Founder. Repeat awards are allowed.

Instructions:

Provide the following information **by June 1**:

- Full name of the nominee plus professional affiliation, postal address, and telephone number.
- Full justification for the award with factual and concise substantiating information. Identify previous awards, society affiliations, publications, and professional achievements.
- Full name of the nominator plus postal address, email address, and telephone number.
- Submit nomination (and endorsements, if any) by postal mail or email to:

Joseph Hamaker

2011 ISPA Professionals Awards Chair
joseph.hamaker@tmgi.net

Previous ISPA Award Winners

Year Presented	Clyde Perry Parametrician of the Year Award	Keith Burbridge Service Award	Frank Freiman Award
1981	Robert Gafney		
1982	Keith Burbridge		
1983	Jim Wilder		Larry Putnam
1984	Darryl Webb		Randy Jensen
1985	Sylvan Pinsky		Bill Cheadle
1986	Henry Apgar		
1987	Clyde Perry		
1988	Alan Mayer	Jack Griffin, Seb Botta	Barry Boehm
1989		Henry Apgar	
1990	Dan Ferens	Cindy Castellana	Gerald McNichols
1991	Marilee Wheaton	Clyde Perry	Don Reifer
1992	Peter Korda	Charles Mauro	Keith Burbridge
1993		Nina Tahir	Peter Korda
1994	Gary Constantine	Madeline Ellis	
1995	Bruce Fad	Seb Botta	
1996	Meinolf Wenzel	Marilee Wheaton	
1997	Sherry Stukes	Ron Larson	Tony DeMarco
1998	Pierre Foussier		Henry Apgar
1999	William Rutledge	Paul Lubell	Dan Ferens
2000	Georg Reinbolt	Sherry Stukes, Karen Davies	Don MacKenzie
2001		Tom Brents	Dan Galorath
2002	Arlene Minkiewicz, Karen McRitchie	Gary Constantine	Charles Hopkins
2003	David Eck	Clyde Perry	Darryl Webb
2004	Jairus Hihn	Giancarlo Filippazzo	Joe Hamaker
2005		Georges Teologlou	Steve Book
2006	Richard Stutzke	Quentin Redman	
2007	William Brundick	Diana Patane	Humbolt Mandel
2008	Hérve Joumier	George Stratton	
2009	Christian Smart	Hank Apgar, Madeline Ellis	Dale Shermon
2010	Tom Coonce	Kurt Brunner, Sherry Stukes	Neil Albert

By STEVE STERK

We added 16 new members and 15 of these folks were from outside the United States. We truly are an international organization.

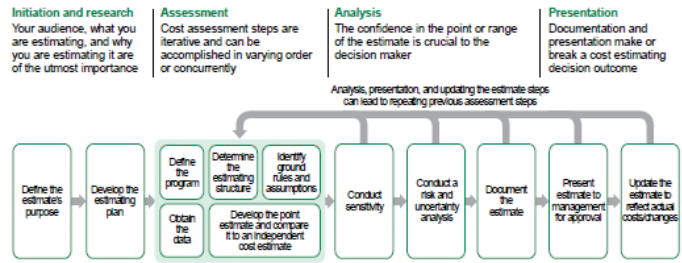
The Membership Team has reached out to members and asked them for their thoughts regarding why it is important to become or remain a member. Melody Jolly is employed by a major defense company as a Senior Cost Engineer. She joined ISPA back in 1997. She has been a member for 14 years and holds the title 'Certified Parametric Practitioner' (CPP). Melody is one of a handful of folks who have been certified twice. So I asked her, "Why do you belong to a Professional Society like ISPA?"



Melody Jolly: *"It assists my management in my performance evaluations. It is a nice blurb to add to a bid package that a certified Cost Estimator assisted in creating the bid. It also gives the engineers confidence in my abilities to assist them with our parametric tool. Also, having the certification gives me satisfaction that I am one of the top Cost Engineers in the industry. And lastly, having a certification helps me to be more aware of changes to our estimating issues within our government agencies. Through seminars, classes, and webinars such as was held in January 2011, I stay abreast of the latest in technologies and industry. Karen Richey (Assistant Director — Applied Research and Methods Team) at the Government Accountability Office (GAO) did such a fabulous job on the webinar. Figure 1: reflects a flowchart of the Cost Estimating Process. This will assist us in continued compliance with government regulations. What I like most about ISPA was that I was able to renew my membership using PayPal directly from ISPA's new Web Site www.ispa-cost.org."*

Web Site. If you need assistance with the web site, your logon ID is: Last Name (space) First Name. email

Figure 1: The Cost Estimating Process



Source: GAO.

steve.a.sterk@nasa.gov for your password or password reset. The process is simple as 1234.

I hope to see everyone reading this article at the upcoming conference slated for Albuquerque June 7 – 10, 2011. Please stop by the ISPA Membership booth and introduce yourself to the Membership Team. More importantly, consider taking the training classes for the practitioner exam. See you there!



Steve Sterk (CPP)
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New Members

Bradford Clark — Software Metrics, Virginia

From the United Kingdom:

Gordon Babb

Paul Badman

Donald Brown

Brian Derrick

Paul Esseen

Philip Goodfield

Ian Horton

Ronald McKinlay

Jamie Morrell

Martin Seaman

Kerry Smith

Neil Turner

Nigel Woodland

New Life Members

Lu Jian — Beijing China

Gao Yiyang — Beijing China

Congratulations to the recent Membership Drawing Winners of the Southern California Chapter. The Southern California Chapter Workshop was held Wednesday, March 16, 2011 at Galorath Inc.



(L-R) Steve Sterk, Mostain Dara Billah, Bruce Thompson, Chris Hutchings, Bryn Turner, Doug Howarth, Jonathan Laurie, and David Graham.

2011 Joint Conference

BY RICH HARWIN, CONFERENCE CO-CHAIR

Welcome to Albuquerque! This year's Conference and Training Workshop will be held in the heart of the high desert southwest, Albuquerque, NM, from June 7 – 10. Conference headquarters will be the beautiful Hyatt Regency Albuquerque, located in the heart of downtown and just minutes from the airport.

As with previous Conferences, this year's event is when everything in cost estimating comes together:

- In-depth training tracks on three levels,
- Professional papers discussing the latest innovations and techniques,
- Plenary sessions with keynote speakers and panel discussions,
- Preparation sessions for the CCEA and CPP examinations held after the Conference concludes, and
- The opportunity to strengthen your professional network by renewing old associations and making new contacts.

This year's Training Workshop is a joint program between ISPA and SCEA. Twelve 90-minute training sessions will be given in three different levels: Fundamentals, Practitioner, and Integration. This year Roy Smoker is taking over as the ISPA Training Co-Chair. Roy, and Kevin Cincotta, his SCEA counterpart, have put together a comprehensive program based in large part on the *Parametric Estimating Handbook (PEH)* and the *Cost Estimating Body of Knowledge (CEBoK)*. The Fundamentals Track covers most of the Core Knowledge sections of 12 of the 16 modules of CEBoK and is intended to help prepare attendees for the CCEA exam. The Practitioner Track goes into more depth on many essential topics and focuses on journeymen who are doing estimates and implementing cost and risk analysis on a day-to-day basis. Six of the primary chapters of the PEH are covered in this track. The Integration Track encompasses related fields like Earned Value Management (EVM), Schedule Analysis, and Software and will appeal to a wide range of attendees on a topic-by-topic basis.

We have had over 140 professional abstracts submitted for this Conference — more than any previous year. All of the papers submitted will be included in the *Conference Proceedings* and be eligible for a Best Paper

Award. Unfortunately, we only have space for 95 of the presentations. The ISPA Program Co-Chair, Sherry Stukes, and the SCEA Program Co-Chair, Paul Marston, have had a very difficult time selecting those papers for presentation at the conference. There will be six tracks:

- Applications
- Management and Decision Making
- Models and Methods
- Research Topics
- Risk Analysis
- Software Estimating

Papers selected for presentation include those from past Best Paper Award winners such as:

- **Dr. Christian Smart:** *Covered with Oil: Incorporating Realism in Cost Risk Analysis*
- **Dr. Shu-Ping Hu:** *Multiply or Divide? A Best Practice for Factor Analysis*
- **Michael Ross:** *Joint Probability of a Parametric Software Cost and Schedule Estimate*
- **Richard Coleman:** *Testing S-Curves for Reasonableness*
- **Joseph Hamaker:** *QuickCost Suite of Space Project Cost Estimation Models*
- **Tim Anderson:** *A Probabilistic Approach to Determining 'How Many Widgets to Build'*

As always, the professional papers run for 45 minutes and are synchronized with the 90-minute training sessions so that attendees can easily move between tracks and from papers to training and back.

The ISPA Best Paper Co-Chair, Dr. Christian Smart, and SCEA Best Paper Co-Chair, Debra Lehman, will lead the committee to select a Best Paper in each track, and then a Conference Best Paper from among the track winners.

For our plenary session on Wednesday we have invited Dr. Stephen Chu, US Secretary of Energy and Nobel Laureate, as our keynote speaker. Dr. Chu won the Nobel Prize for Physics in 1977. Prior to his appointment he was the Director of the Department of Energy's Lawrence Berkeley National Laboratory.

Continued on next page.

Albuquerque Skyline



For our panel discussion on Thursday we will have:

- **Dr. Richard Burke**, Deputy Director, Cost Assessment, Office of the Secretary of Defense/Cost Assessment and Program Evaluation
- **George Barbic**, Director, Corporate Program Assessment & Evaluation, Lockheed Martin
- **Stephen Bagby**, Deputy Assistant Secretary of the Army for Cost and Economics
- **David E. Ricci**, Director, Pricing, Estimating and Program Control, Northrop Grumman
- **Dan Noteboom**, Director, Estimating & Pricing, The Boeing Company
- **Duncan Thomas**, Technical Director for the Naval Center for Cost Analysis

They will be discussing the impact to estimating and risk assessments relative to the recent Department of Defense Affordability and Will Cost/Should Cost initiatives. The intent of the panel is to share insights from both government and industry perspectives.

The social side of any conference is an important part of the total experience. We will open the Conference on Tuesday evening with a Welcome Reception and cap Thursday with our traditional banquet and awards ceremony.

Albuquerque mixes a number of cultural influences with a history that dates to the Conquistadors and even earlier. There is a strong Native American influence. Our hotel is centrally located in the Albuquerque business district. Only two blocks away is the Central Avenue (Historic Route 66) entertainment district. Less than a mile away is Albuquerque's Old Town, dating from the days when New Mexico was a Spanish colony. We

plan to provide a shuttle service there and back on Wednesday evening. A little further is the National Balloon Museum (Albuquerque is a hub of hot air ballooning), the Indian Pueblo Cultural Center, and the Sandia Peak Tramway (the world's longest). If you have a spare day, the RailRunner can take you to Santa Fe and back. Of course there is nearby golf and you may depend on warm, sunny weather.

One of the key factors in the success of any conference is the detailed work behind the scenes by the National Office staff, headed by Erin Whittaker. Joe Wagner is handling the finances with Sharon Burger and Erica Wilkening handling the detailed work. Most of us have no idea how many details have to come together synchronously for a conference to occur. One of our real strengths is our Joint National Office.

Don't Miss This Opportunity!! Register now and get more information at: <http://sceaonline.org/events/conference/2011splash.cfm>

When you register online, you will notice that we have added two new conference rates, one for full-time students and another for full-time retirees.

Conference 2011 Workshop Papers

BY SHERRY STUKES AND PAUL MARSTON

The Conference 2011 Workshop presentations are being finalized. Track chairs have sent out instructions to authors for their papers and presentations. They are in contact with and are actively pursuing the ninety-five presenters to ensure that they are all prepared for the Conference.

The following track chairs have been assigned to and are actively preparing for their track sessions. The track chairs will be on site at the conference to introduce presenters and manage the track sessions. If you have questions about a track or would like more information about a particular track, feel free to contact any of the track chairs.

- Applications Doug Howarth, Bob Hunt, Jim Roberts
- Management Kurt Brunner, Rey Carpio, Mike Ross
- Models and Methods Hank Apgar, Leigh Rosenberg, Quentin Redman
- Research Topics Tom Sanders, Cari Pullen
- Risk Analysis Tim Anderson, Andrew Drennon
- Software Estimating Leone Young, Joe Dean

The preliminary workshop paper schedule, provided on pages 13-15, is as follows:

Sherry Stukes
Conference 2011 Workshop Co-Chair
sherry.a.stukes@jpl.nasa.gov
(818) 393-7517

Paul Marston
Conference 2011 Workshop Co-Chair
pmarston@mcri.com
(978) 528-4394



Wednesday, June 8, 2011

TRACK NAME	Applications	Management	Models & Methods	Research	Risk	Software
ROOM	Enchantment AB	Enchantment CD	Enchantment EF	Fiesta 1-2	Sage	Fiesta 3-4
10:30 – 11:15	Targeting Affordability and Controlling Cost Growth through Should-Cost Analysis <i>Anthony DeMarco</i>	Comprehensive Assessment of Program Performance using Earned Value Management Data <i>William Laing</i>	Extending FEA and DODAF To Support Cost Modeling <i>Andreas Tolk</i>	Joint Cost Schedule Model—Recent AFCAA Efforts to Access Integrated Cost and Schedule Analysis <i>Antonio Rippe</i>	Effective Use of Cost Risk Reports <i>Alfred Smith</i>	Is There Magic Associated with Software Benchmarks? <i>Donald Reifer</i>
11:15 – 12:00	An Application of Data Mining Algorithms for Shipbuilding Cost Estimation <i>Bohdan L. Kaluzny</i>	Life Cycle Cost Growth for 20 NASA Science Missions <i>Claude Freaner</i>	Operating and Support Cost Estimating Methods: An Approach to estimate the US Navy's Future Cost of Ballistic Missile Defense <i>Brian Welsh</i>	Fuel Cells turn up the Heat <i>Arlene Minkiewicz</i>	Testing S-Curves for Reasonableness: The NCCA S-Curve Tool <i>Richard Coleman</i>	SEER-SEM to CO-COMO II Factor Converter <i>Anthony Peterson</i>

Lunch in Pavilion IV-VI, Coffee and Dessert in Pavilion I-III

TRACK NAME	Applications	Management	Models & Methods	Research	Risk	Software
ROOM	Enchantment AB	Enchantment CD	Enchantment EF	Fiesta 1-2	Sage	Fiesta 3-4
1:30 – 2:15	Selection of Data Source for Systems Contractor Labor Rates and Overheads and Their Application <i>Brian Wilkerson</i>	How Cost Arises— How We Can Reduce Cost <i>Edwin Dean</i>	Utilizing the Capabilities Knowledge Base for Cost Benefit Analysis and Analysis of Alternatives <i>Chadd Sibert</i>	Using Project Performance Data in Cost and Schedule Analysis <i>Fred Kuo</i>	Covered with Oil: Incorporating Realism in Cost Risk Analysis <i>Christian Smart</i>	Estimation Challenges for 21st Century Software Systems <i>Barry Boehm</i>
2:15 – 3:00	Rolling on the Affordability River (While Managing the Acquisition Program in the Rapids) <i>Christopher Svehlak</i>	Constructing a Price-to-Win <i>Frank Flett</i>	Assessing Impact of Funding Constraints to Cost and Schedules <i>Darren Elliott</i>	Ideas from Measurement Theory for Quantifying Intangibles <i>Mitch Robinson</i>	Joint Confidence Level Analysis and the Dynamic Integrated Cost Estimator (DICE) Model <i>Graham Gilmer</i>	Function Point Analysis: One Size Fits All <i>Dan French</i>

Break (3:00 – 3:30)

SCEA CCEA Study Session 3:00 – 5:00 in Pavilion IV-VI

3:30 – 4:15	Commercialization Activities at NASA and Resulting Cost Implications <i>James Roberts</i>	EELV Should Cost Review Overview and Lessons Learned <i>James Smimoff</i>	Applying Development Cycle Electronics Hardware Sub Product Parametric Cost Models to Project Execution <i>David Bloom</i>	Cloud Nine, Are We There Yet? <i>Arlene Minkiewicz</i>	EVM Trends to Forecast Cost Risks <i>Roy Smoker</i>	The Challenge of Agile Estimating <i>Heather Nayhouse</i>
4:15 – 5:00	Minimizing Maintenance Costs Using Beyond Economic Repair Analysis <i>Jerry LeMay</i>	What to Know When Estimating Virtualized Environment Costs <i>Jennifer Woolley</i>	Trade Space, Product Optimization and Parametric Analysis <i>Doug Howarth</i>	NRO CAIG O&M WBS and Duration Guidance <i>Ryan Timm</i>	Real-time Risk for the Operations Environment <i>John Teal</i>	Enterprise Resource Planning Systems: Sizing Metrics and CER Development <i>David Brown</i>

Thursday, June 9, 2011

TRACK NAME	Applications	Management	Models & Methods	Research	Risk	Software
ROOM	Enchantment AB	Enchantment CD	Enchantment EF	Fiesta 1-2	Sage	Fiesta 3-4
10:30 – 11:15	Cost by Capability: Funding the Right Mission Capabilities in a Cost Constrained Environment <i>John Scardino</i>	Building a Cost Analysis Improvement Group— Best Practices and Lessons Learned <i>Keith Robertson</i>	Objective System Acquisition Decision Making Utilizing the Analytic Hierarchy Process (AHP) <i>Hisham Jalil</i>	Enhancing Cost Realism Through Risk Driven Contracting: Designing Incentive Fees Based on Probabilistic Cost Estimates <i>Sean Dorey</i>	Joint Probability of a Parametric Software Cost and Schedule Estimate: Method and Example <i>Michael Ross</i>	Software Cost Estimation Using a Decision Tree Process: A Knowledge Engineering Approach <i>Sherry Stukes</i>
11:15 – 12:00	Earned Readiness <i>John Williams</i>	Lessons Learned: A Case Study in Labor Cost Estimating in a Data-Poor Environment <i>Kevin Schutt</i>	A Comparison of Military and Commercial Submersible Systems Cost Environments and Methods for Estimating Submersible Development and Production Costs <i>Janet Vacca-LeBoeuf and Greg Bell</i>	An Approach to Estimate the Life Cycle Cost and Effort of Project Management for Systems Centric Projects <i>Leone Young</i>	Quasi-Monte Carlo Methods: Combating Complexity in Cost Risk Analysis <i>Blake Boswell</i>	NCMA—Source Selection <i>Steve Busch</i>

Lunch in Pavilion IV-VI, Coffee and Dessert in Pavilion I-III

TRACK NAME	Applications	Management	Models & Methods	Management 2	Risk	Applications 2 Models & Methods 2
ROOM	Enchantment AB	Enchantment CD	Enchantment EF	Fiesta 1-2	Sage	Fiesta 3-4
1:30 – 2:15	Affordability from a Systems Engineering Perspective <i>Edwin Dean</i>	You Really Don't Have to Lose a Million Dollars a Year: A Cost/Price Analytical Journey through the World of Winemaking <i>Mike Thompson</i>	QuickCost Suite of Space Project Cost Estimation Models <i>Joe Hamaker</i>	Military Rank <i>Michael Brozyna</i>	The Perils of Portability: CGFs and CVs <i>Peter Braxton</i>	Building CERs and SERs for Enterprise Resource Planning (ERP) Programs <i>Wilson Rosa</i>
2:15 – 3:00	A Methodical Approach to Performing Multivariate Regression on Large Data Sets <i>Matt Pityk</i>	Enhanced Cost Analysis in Support of Aerospace Corporation's Decision Support Framework (DSF) <i>Mel Broder</i>	Cost Analysis Using Random Forest Prediction <i>Karen Mourikas</i>	Implementation of JCL Policy <i>Thomas Coonce</i>	Understatement of Risk and Uncertainty by Subject Matter Experts <i>Peter Braxton</i>	Modeling to Establish the Affordability KPP <i>Samuel Toas</i>

Break (3:00 – 3:30)

3:30 – 4:15	Mahalanobis Distance: Shortening the Distance Between You and Clean Data Sets <i>Mike Manchisi</i>	How to Estimate and Use Management Reserve in an EVM System <i>Mark Infanti</i>	Multicollinearity in Zero Intercept Regression: They Are Not Who We Thought They Were <i>Kevin Cincotta</i>	Obtaining Greater Efficiency and Productivity in Defense Spending <i>Tom DuPre</i>	Risk Based Estimating and Alternative Selection Using Value Analysis <i>Gregory Brink</i>	Dynamic Helpdesk Resource Modeling <i>Sujoy Roy</i>
4:15 – 5:00	Use of JCL Data and Information for Programmatic Success <i>Rey Carpio</i>	Cost Analysis Process in Manufacturing Industry <i>Mostain Dara Billah</i>	The Infrastructure Service Provider (ISP) Cost Model <i>Kyle Thomas</i>	Overcoming Challenges in Estimating Advanced Technology Programs <i>Zachary Jasnoff</i>	The Implementation of Crystal Ball in Proposal Evaluations and Cost Models <i>Travis Winstead</i>	RealTime Analytics <i>Eric Druker</i>

Friday, June 10, 2011

TRACK NAME	Applications	Management	Models & Methods	Management 2	Applications 2 Risk	Models & Methods 2
ROOM	Enchantment AB	Enchantment CD	Enchantment EF	Fiesta 1-2	Sage	Fiesta 3-4
8:30 – 9:15	Standardizing the Cost Technical Baseline — Template and Tutorial <i>Diane Butler</i>	Best Practices in Aerospace Cost Estimation: Observations from US Air Force and NASA <i>Robert Georgi</i>	Analysis of Parametric and Database-Driven Cost Estimates in the Transit Industry <i>L. Brian Ehrler</i>	Improving Baseline Execution — A Parametric Approach <i>Steve Sultzer</i>	Determining Cost Estimating Relationships for Nine FAA WBS Solution Development Elements <i>William Barfield</i>	A Methodology to Improve the Predictability of CER with Insufficient Data in Korean Weapon System R&D Environment <i>Yong Bok Lee</i>
9:15 – 10:00	Budgeting to the Mean <i>Rick Garcia</i>	Integrating Earned Value Analysis and Independent Cost Estimating for Large Multi-Year System Procurement <i>Ron Weimar</i>	Introduction to the Operating and Support Cost Analysis Model (OSCAM) <i>Mary Mertz</i>	Two (of Many) Lessons Learned from an Inflation Study: Combining and Validating Inflation Indices <i>Eric Mosier</i>	Using the New 881 WBS/CES for ERP Acquisition: Lessons Learned <i>Virginia Stouffer</i>	A Probabilistic Approach to Determining "How Many Widgets to Build" <i>Timothy Anderson</i>
Break						
10:30 – 11:15	Evolved Expendable Launch Vehicle (EELV) Discrete Event Simulation: Ensuring the Buck Results in a Bang <i>Colleen Craig</i>	Mathematical Lessons Larned from a Year's Worth of ICES <i>Ryan Boulais</i>	An Elicitation Method to Generate Minimum-Bias Probability Distributions <i>Marc Greenberg</i>	The Shortcut to Fully Burdened Cost of Fuel Analysis <i>Kristopher Atkins</i>	Interconnected Estimating Relationships: Their Derivation and Application <i>Steve Book</i>	Faster and Better Ways to Determine an Engineering Labor Rate for Pre-Award Development Contract Cost Estimates <i>Michael Sweeney</i>
11:15 – 12:00	Multiply or Divide? A Best Practice for Factor Analysis <i>Shu-Ping Hu</i>	PARS II: Redefining Program Oversight & Assessment at the Department of Energy <i>Simon Dekker</i>	Economic Elasticity of Tactical Missile Costs <i>Raymond Covert</i>	Instrument Schedule Delays Potential Impact on Mission Development Cost for Recent NASA Projects (Follow-On Study) <i>Stephen Ringler</i>	Cost Risk Allocation Theory and Practice <i>Christian Smart</i>	Primer for Analyzing SLOC Counts <i>Brian Opaska</i>



Albuquerque Mountains

Conference Panel



Dr. Richard P. Burke
Deputy Director, Cost Assessment
Office of the Secretary of Defense/Cost
Assessment and Program Evaluation

Dr. Burke has served as the Deputy Director, Cost Assessment, in the Office of the Secretary of Defense, Cost Assessment and Program Evaluation (OSD/CAPE) since June, 2009. Prior to this he served as the Deputy Director for Resource Analysis, Office of the Secretary of Defense, Program Analysis and Evaluation, and as the Chairman of the Cost Analysis Improvement Group (CAIG) beginning in November 2002. He joined the Office of the Secretary of Defense in April 1988. Prior to his service in DoD, Dr. Burke served in several program management positions at Sandia National Laboratories in Albuquerque, New Mexico. He is an International Affairs Fellow of the Council on Foreign Relations in New York, and served as a visiting scholar at Stanford University during 1992-93. Educated at the Massachusetts Institute of Technology, he received a doctorate in nuclear engineering and decision analysis in 1984. His published work includes studies of the economic and international aspects of commercial nuclear power reactors, the economic risks of power reactor accidents, and export controls on high-technology industries.



George Barbic
Director of Estimating, Program Assessment &
Evaluation
Lockheed Martin Corporation

George Barbic is the Director of Estimating for the Lockheed Martin Corporation. Primary areas of responsibility include current cost estimating processes and tools along with the corporate wide, future transformation of estimating. He is also the principal government, customer, and industry interface associated with estimating transformation and initiatives.

George has responsibility for the integrated Lockheed Martin corporate Estimating Transformation Initiative (ETI) and Corporate Estimating Council (CEC). In this capacity, he provides direction and day to day management of key ETI / CEC elements associated with data repositories and metrics, processes and products, tool and capability development and implementation, closed-loop assessments, and affordability implications associated with a data driven / fact based approach to estimating. The objective of ETI / CEC is to reduce resources and cycle time, increase accuracy and improve products in support of proposal and program cost estimating. George also formed and is responsible for the Lockheed Martin Corporate Cost Modeling Working Group (CCMWG).

George was the driving force for industry in the establishment of the Joint Space Cost Council (JSCC). The JSCC is a cohesive team formed with senior government and industry cost leadership to identify and resolve cost and acquisition issues associated with current and future Space programs. With the success of the JSCC George has also been instrumental in helping to create the individual Air Force, Navy, and NASA Cost Integrated Product Teams. In addition, he has established working relationships with the OSD CAPE, ODNI CAIG, NRO CAIG, AFCAA, SMC, NCCA, NASA and DCAA. George also is an active member of SCAE.

Previously George was the Sr. Manager of the Systems Parametrics Analysis and Risk organization within the central Systems Engineering directorate of the Lockheed Martin Space Systems Company. This organization provided cost modeling and analysis support for all Space and Missile programs resident at the Lockheed Martin Sunnyvale California and Denver Colorado sites. George has been a driving force in, and an advocate for, cost estimating, cost modeling and affordability efforts during his 28 years with Lockheed Martin.

George is the recipient of several Team Excellence, Business and Process Improvement, and New Business awards along with multiple individual achievement awards. George attended U.C. Berkeley and Utah State graduating with a Bachelor of Science degree in Business Administration in 1979.



Stephen T. Bagby
Deputy Assistant Secretary of the Army (Cost
and Economics)

Mr. Bagby is currently assigned as the Deputy Assistant Secretary of the Army for Cost and Economics. He is responsible for Army policy and technical direction of all cost and economic activities. He delivers the Army's independent cost estimates for weapons & information systems; manages the development of Army cost positions on all systems reviewed by the Army Cost Review Board; and directs cost analyses dealing with force structure, personnel—military, civilian, and contract labor, base operations, and weapons & information systems operation and support. Mr. Bagby supports the Army's Programming and Budgeting processes with cost and economic analysis. He also directs the Army's cost management and performance management activities for internal and external reporting. He manages the Army wide cost research program to deliver cost tools, databases, and models throughout the Army.

Mr. Bagby has served the Army's Financial Management Community for 30 years, primarily in budgeting and cost

Continued on next page.

analysis fields. He served in the U.S. Army from 1967 to 1969. He began his civilian career in budgeting at the U.S. Army Corps of Engineers and has held budgeting positions at installation, major command, and headquarters levels.

He has served as Chief of the Procurement Division, Army Budget Office, in the Pentagon. In addition, he also functioned as the Chief of Budget Execution in the Army's Budget Office. Mr. Bagby has served as the President of the American Society of Military Comptrollers (ASMC)—Washington Chapter. He has served as a Society of Cost Estimating and Analysis (SCEA) Director.

Mr. Bagby earned both his Bachelor of Science in Accounting and his Masters Degree in Business Administration from Youngstown State University. He is a graduate of the Industrial College of the Armed Forces and has attended the Professional Resource Management Course at Syracuse University and the Military Comptrollers School at Maxwell AFB. The American Society of Military Comptrollers recognized Mr. Bagby's contributions with its research award for his work in Managerial Costing for Base Operations. He has also received the Army's Meritorious Civilian Service Award, the Under Secretary of Defense (Comptroller) Financial Management Initiatives Award, and twice has received the Army's Resource Management Annual Award.



David E. Ricci
*Corporate Director, Pricing,
Estimating and Program Control
Northrop Grumman Corporation*

David Ricci is Corporate Director, Pricing, Estimating and Program Control responsible for the development of corporate-wide policies, guidelines and procedures. He chairs the Corporate Pricing and Estimating Council and the Corporate Earned Value Management Council and is the Corporate Sponsor for the Corporate Property Council, the governance bodies for all pricing, estimating and program control and property matters. In addition, he provides Northrop Grumman's comments to current and proposed government changes in acquisition laws, regulations and policies and facilitates implementation of those policies within the company and the sharing of best practices among the company's business sectors. He is also responsible for Corporate pricing and estimating and earned value management information systems, reporting and performance measures.

Mr. Ricci's contracting and pricing career spans more than 25 years. Prior to joining Northrop Grumman in 2010, he was the Executive Director for Contracts at Defense Contract Management Agency Headquarters. His responsibilities there included policy development and deployment, training, and mission support tools in the areas of contract management, property administration, and small business. In addition, his

organization executed all small business, plant clearance, property, termination, insurance/pension review, and contractor purchasing system review functions required in administering over 300,000 contracts for the Department of Defense.

Mr. Ricci earned a Bachelor of Science degree from Fairfield University and a Master of Business Administration degree from Florida Tech and has received the Certified Professional Contract Manager designation from the National Contract Management Association.

Northrop Grumman Corporation is a leading global security company whose 120,000 employees provide innovative systems, products, and solutions in aerospace, electronics, information systems, shipbuilding and technical services to government and commercial customers worldwide. For more information, visit www.northropgrumman.com.



Daniel (Dan) Noteboom
*Director, Estimating & Pricing
Boeing Defense, Space & Security*

Mr. Noteboom is the Director of Estimating & Pricing for Boeing Defense Space & Security (BDS). His responsibilities included policies, procedures, systems, compliance, employee development and training for the BDS Estimating & Pricing functional organization. During his 32 years with Boeing Mr. Noteboom has held various management positions within Contracts, Estimating & Pricing and Business Management. He has extensive experience working on major new business proposals for both domestic and international endeavors. Mr. Noteboom holds a Bachelor of Science degree in Industrial Technology from California State University at Long Beach.



Duncan Thomas
*Technical Director, Naval Center for Cost
Analysis Office of the Deputy Assistant
Secretary of the Navy
(Cost and Economics)*

Mr. Duncan Thomas serves as the Technical Director for the Naval Center for Cost Analysis, Office of the Deputy Assistant Secretary of the Navy (Cost and Economics), Washington, D.C. He is responsible for the quality of all cost and economic analyses reviewed by Headquarters Staff to support major Department of the Navy resource allocation decisions, intern and training development, and assisting with Naval policy development for cost and uncertainty analysis.

He was appointed to his position as member of the scientific and technical cadre of senior government executives in November 2009. From October 2008 to November 2009, he served as the Naval Center for Cost Analysis (NCCA) Director of Cost Estimating Division, where he was responsible for

Continued on page 20.

Certified Parametric Practitioner (CPP) News

By ROY SMOKER, CHIEF PARAMETRIC PRACTITIONER

ISPA welcomes the following new CPPs from the United Kingdom who successfully passed the CPP exam in February. Be sure to congratulate the following individuals on their achievement: Gordon Babb, Paul Badman, Donald Brown, Anthony Burrows, Brian Derrick, Paul Essen, Phillip Goodfield, Sarah Hawes, Ian Horton, Kerry Smith, Neil Turner and Nigel Woodland. These individuals are part of a UK Ministry of Defence program to get certified in the application of parametric analysis. ISPA is proud to be leading the way in providing the training leading to certification.

The next opportunity for individuals to take the CPP exam will be on Saturday morning, June 11, 2011 after the Joint ISPA-SCEA Conference in Albuquerque, NM. The conference is a good place to attend training sessions and study for the exam. Exam questions have been developed from each of the chapters of the Parametric Estimating Handbook (PEH) and selected appendices. The exam questions will be of four types: multiple choice (80), true and false (15), fill in the blank (5), and matching answers (5). Also shown is the Conference Training Session that covers the material in each chapter.

Guide to the ISPA CPP training classes

Source of Question	Number of Questions	Conference Training Session	Trainer	Schedule
PEH Introduction	3		Roy Smoker	Tuesday, 8:00 – 8:30
Chapter 1. Overview	10	PC-03 Parametric Analysis Overview	Jason Dechoretz	Tuesday, 8:45 – 10:15
Chapter 2. Data Collection	5	PC-04 Data Collection & Analysis	Dan Galorath	Tuesday, 1:30 – 3:00
Chapter 3. CERs	10	PC-06 Cost Estimating Relationships	Christian Smart	Wednesday, 10:30 – 12:00
Chapter 4. Company Models	6	PC-07 Company-Developed Complex Models	Hank Apgar	Friday, 8:30 – 10:00
Chapter 5. Complex HW Models	5	PC-08 Complex Hardware Models	Greg Kiviat	Thursday, 10:30 – 12:00
Chapter 6. Complex SW Models	10	PC-09 Complex Software Models	Sherry Stukes	Thursday, 1:30 – 3:00
Chapter 7. Government Compliance	10	IN-01 Government Compliance	Jerry McAfee	Thursday, 10:45 – 12:15
Chapter 8. Other Parametric Apps	9	IN-02 Other Uses of Parametrics	Kurt Brunner	Friday, 8:30 – 10:00
Chapter 9. International Parametrics	3	IN-03 International Use of Parametrics	Roy Smoker	Friday, 10:30 – 12:00
Appendix A, B, C, I	16	CPP Exam Overview	Roy Smoker	Tuesday, 5:00 – 6:00
Problems Using Parametrics	13	CPP Exam Overview	Roy Smoker	Friday, 1:30 – 3:00
TOTAL	100			

Once you arrive at the conference, confirm the exact times, dates, and room locations in the conference schedule to ensure there have been no last minute changes. Participants are free to attend either or both sequences, whether or not you intend to sit for one of the examinations. All conference training is free — there is no additional cost beyond the conference fee.

Notes from René Berghuijs — *Brussels, Belgium*



As I write this the Albuquerque 2011 conference is about two months away, but over here we are already busy preparing for the Brussels 2012 conference. Dates have been set for 14-16 May 2010, potential locations are being checked out and more details will be filled in as we progress. One of the ideas we are considering for this conference is to simultaneously translate the presentations from English into French and/or German.

By doing this we would hope to attract more participants from these nations. Another idea is to record the presentations so that they can be played again later.

The BeNeLux chapter is meeting at the end of April at the Heineken breweries in the Netherlands. We are looking into parametric estimating tools for hardware and have found Joachim Schöffer from the 4cost GmbH company willing to guide us through the cost estimate for a packaging machine. Our host for the day has promised that we can try some of their product before we all go back home again!

All the best from Brussels!

Réne Berghuijs

NATO Air Command and Control System (ACCS) Management Agency



Grand Place, Brussels, Belgium

Notes from Arthur Griffiths — *The UK*



Improving Cost and Time Estimating?

In the last edition of *PW* our membership chair, Steve Sterk, reported a significant increase in ISPA membership from the UK. The Defence Acquisition Reform Programme has indeed brought new impetus to the cost engineering and forecasting community within the Ministry of Defence (MoD). Under a three-year contract awarded to the consultants KPMG to bring in improvements the first phase, 'Benchmarking' has now been completed. Their assessment report on the measurement of the MoD performance against an 'Upper Quartile Standard' has not been made public. However, it is understood that the findings from the review fully supported the Business Case to proceed with the second phase — that being a review and implementation of processes and structure.

KPMG has provided a feedback report to all the companies and

organisations that participated in the Phase 1. The objective of this first phase exercise was to define a set of standards by which the MoD could measure its current performance. Some thirty organisations representing eleven industries were surveyed and KPMG has said that *"the information provided helped to build a rich picture of the Upper Quartile Standard"*. The key evidence and findings of report are comprehensive and make interesting reading.

All this is seen as good news for the estimating community — through greater visibility and focus. However, the expectation levels regarding improvements in Cost and Time estimating are now increased. The challenge for ISPA will be to ensure that the gains in membership are renewed and that those members are encouraged and supported over the coming years.

Arthur Griffiths

Decision Analysis Services Ltd.

BY GREG KIVIAT



As the 2011 ISPA/SCEA conference and workshop in Albuquerque June 7 – 10 nears, it's worthwhile to think about why there is such a wide variety of papers, presentations and training materials offered at the conference each year. As I (and many others) have mentioned in earlier articles, good cost analysis requires skill sets from many disciplines and functions including engineering, manufacturing, finance, programs, supportability and others. What makes our jobs interesting, challenging (and I think important), is the opportunity to exercise these skills and to interact with functional teams from across the enterprise and throughout the product life cycle.

The 2011 Conference Workshop lists six tracks of presentations (Applications, Management & Decision making, Models & Methods, Research Topics, Risk Analysis and Software Estimating). However, it's clear that when you look at the titles of the 94 papers to be presented (listed in the last issue of *PW*) there is a wider spectrum of expertise offered to conference participants than is implied by the six track names.

I thought it might be interesting to categorize this year's papers and presentations by skill and function to better describe the scope and breadth of the offerings. Though some papers may represent more than one category, based on the presentation title I attempted to classify them based on typical skill set or functional resource needed to evaluate costs. From a quick classification and count of the planned presentation this year the following is a profile and count of the offerings:

- Estimating — 27
- Mathematics/statistics/risk — 19
- Program/Project Management — 14
- Operating and Support/LCC — 9
- Data Collection and Analysis — 8
- System Engineering — 6
- Business Analysis — 5
- Design to Cost — 3
- Economic Theory — 1

As one might expect 'Estimating' is the largest category, but even within that group you may have a sub focus on structures, electronics, software, and supportability. Beyond the general estimating group are activities that enable an estimate to be made; within this group, mathematics is a strong second in the paper count of presentations. The relatively large number of program management papers indicates how coupled cost analysis is to good program management.

This list does not even include the more than 35 ISPA and SCEA Training sessions that are specifically offered to improve member knowledge of data, estimating, economics, math/statistics/risk, and Government compliance.

As ISPA (and SCEA) members progress in their careers it is important to be exposed to (and understand) the wide set of skills needed to best support cost estimating throughout the product life cycle. I like to think that, while estimators and cost analysts need to be generalists in many disciplines, they also need to continually improve skills within the specialties that they focus on every day. The ISPA/SCEA conference and workshop provides an excellent opportunity to do just that.

Greg Kiviat
ISPA Secretary

Conference Panel: Continued from page 17.

overseeing the development of Service Cost Positions for all Navy ACAT IC and IA programs.

Mr. Thomas began his Government service with the Air Force Cost Analysis Agency (AFCAA) in November 2002. While at AFCAA, he held a variety of positions including Division Chief and Technical Advisor of the Space Programs Division.

Prior to Government service, Mr. Thomas was a senior analyst at Tecolote Research, Inc. responsible for providing analysis to support major Army, Air Force, Navy, Marine Corps, and Federal Aviation Administration (FAA), and National Aeronautics and Space Administration (NASA) acquisition decisions. He is also the author of several cost research papers including "Methods for Estimating Radar Transmit/Receive Modules" and "Cost Estimating Relationships for Tooling for Composite Parts".

Mr. Thomas holds a Bachelor of Science degree in Applied Mathematics from UCLA and a Senior Managers in Government Certificate from Harvard Kennedy School.

ISPA Southern California Chapter News

BY KURT BRUNNER, CHAPTER PRESIDENT AND SHERRY STUKES, SECRETARY/TREASURER

The Spring 2011 joint ISPA/SCEA workshop was hosted by **Galorath, Incorporated** at their El Segundo, CA conference center on **16 March 2011**. The attendees enjoyed a full day of presentations and the opportunity to meet and network with attendees from other organizations. There were 99 individuals registered for the workshop including several virtual participants who joined by teleconferencing to the workshop. See photo of participants below.

At this workshop, there were several important announcements. First, the newly elected ISPA Southern California Chapter Board of Directors was announced by the Chapter Elections Chair, **Ms. Madeline Ellis**. The new Board includes:

President	Kurt Brunner
Vice-President	Quentin Redman
Secretary/Treasurer	Sherry Stukes
Board Members	Hank Apgar
	Doug Howarth
	Chris Hutchings
	Mike Ross
	Stuart Swalgen (not pictured)

Our Southern California Chapter workshops continue to have an impressive group of speakers and an engaged group of attendees. There were good questions asked and lively discussions held throughout the day. The



ISPA Southern California Chapter Newly Elected Board of Directors: Kurt Brunner, Mike Ross, Sherry Stukes, Quentin Redman, Doug Howarth, Chris Hutchings, and Hank Apgar.

workshop presentations included:

Keynote Address: Dan Galorath, President, Galorath Inc
Karen McRitchie, Vice President Product Development, Galorath Inc, 'Behind the SEER-SEM 8.0 Updates'

Rick Garcia, Director, Space Programs Cost Analysis, MCR LLC, 'Budgeting to the Mean'

Training Topic: Mike Ross and Tony Dietl, Tecolote Research, 'Anatomy of a Software Estimate'

Pierre Foussier, President, 3-f (Paris, France), 'How to Deal with Qualitative Variables'

Quentin Redman, Director — Solutions Architect, PRICE Systems LLC, 'Controlling Cost Growth through Will Cost/Should Cost Management'

Dr. Jairus Hihn, Risk Manager, JPL, 'How Engineers Really Think About Risk'

Continued on page 22.



ISPA/SCEA Workshop hosted by Galorath, Inc. 16 March 2011

Continued from page 21.

At the conclusion of the workshop, as an incentive to stay until the last presentation was complete, a membership drawing was held. See Membership report.

If you would like a copy of the workshop briefings please go to our website (www.ispa-cost.org) and login as either a member or a guest and look for the Southern California Chapter. We do our best to get all of the presentations loaded on the web site immediately following the meeting, but if you have an immediate need, feel free to contact the workshop program coordinator, **Henry Apgar**, at hapgar@mcri.com for copies of the presentations.

Don't miss our next joint **ISPA/SCEA Spring 2011 Workshop** which will be hosted by the **University of Southern California (USC)** located in Los Angeles, CA, 13 September 2011. Our agenda for the September 2011 workshop is still in progress. We will be e-mailing the agenda to members and previous attendees at the end of July. The agenda will contain a location map and driving instructions. The agenda will also be posted to the ISPA web site. At this workshop, morning and afternoon refreshments will be provided by USC. Lunch will be on your own. You may contact the USC registration point of contact, **Ms. Julie Sanchez** at: jasanche@usc.edu or (213) 740-5703 to register beginning in August 2011.

Please consider hosting a workshop or presenting at a workshop! It will be a rewarding experience. If you are interested in hosting a workshop, please contact **Kurt Brunner** at kbrunner@tecolote.com, **Quentin Redman** at quentin.redman@pricesystems.com, or **Sherry Stukes** at sherry.a.stukes@jpl.nasa.gov. Also, if you are interested in making a presentation at a workshop, please contact our Program Coordinator, **Henry Apgar**, at hapgar@mcri.com.

We look forward to seeing you at the next workshop!



Kurt Brunner

President,
ISPA Southern California Chapter
kbrunner@tecolote.com
(310) 536-0011 x144



Sherry Stukes

Secretary/Treasurer,
ISPA Southern California Chapter
sherry.a.stukes@jpl.nasa.gov
(818) 393-7517

CALENDAR OF EVENTS

May 3, 2011

11:00 AM - 12:00 PM EDT

Webinar, PRICE Systems

'Following the GAO Estimating Process'
Registration:

[https://www2.gotomeeting.com
register/487992306](https://www2.gotomeeting.com/register/487992306)

June 7 - 10, 2011

ISPA & SCEA Conference & Training
Workshop

Hyatt Regency Albuquerque, New Mexico
Information: scea@sceaonline.org
or 703-938-5090

June 9, 2011

SCAF Workshop

'International Perspectives of Estimating'
Ashton & Lea Golf Club, Preston, Lancashire

Information: Neil Morrill
ndmorrill@dstl.gov.uk

mmbrooks@dstl.gov.uk or www.scaf.org.uk

June 20 - 23, 2011

79th MORS Symposium

(Classified — US Only)

"Developing the Next Generation
of National Security Analysts"

Naval Post Graduate School
Monterey, California

Information: www.mors.org

September 13, 2011

ISPA So Cal Workshop

University of Southern California
Los Angeles, CA

USC registration: Ms. Julie Sanchez
jasanche@usc.edu or (213) 740-5703

September 21 - 22, 2011

SSCAG, Wyle, Chantilly, VA.

David Pine: dpine2@cox.net

**Mid-Atlantic Chapter Contact:
Ron Larson**

ronald.k.larson@nasa.gov



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our Federal Government
for over 60 years***

Wyle is one of the nation's leading providers of independent analytic, engineering and testing services to the Intelligence Community (IC) and the Department of Defense.

We are rapidly growing our cleared IC support team in the National Capital Region and are actively seeking qualified candidates to join our world-class team of professionals currently providing support in the following areas:

- ***Cost Estimating and Analysis***
- ***Budget Analysis***
- ***Financial Management***
- ***Acquisition Management***
- ***Earned Value Management***
- ***Program Control***
- ***Program Management***
- ***Strategy and Operations***

These positions require an active TS/SCI and Counter Intelligence (CI) Polygraph or Full Scope (FS) Polygraph or eligibility to obtain this level of clearance.

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Date: _____ Renewal New Member Change of Address

Name: _____ Title: _____

Business Affiliation: _____ Voice: _____

Mailing Address: _____ Fax: _____

City, State, Zip, Country: _____ Email: _____

Alternate Address: _____ Home: _____

City, State, Zip: _____ Country: _____

Dues Amount (US\$): \$55.00 Annual Member \$100.00 Two-Year Member

\$30.00 Student Member \$550.00 Life Member

Credit Card: Visa Mastercard American Express

Card Number: _____ Expiration Date: _____

Signature: _____

Amount Enclosed: \$ _____

Amount Charged: \$ _____

Make all checks payable to "ISPA". Send checks and correspondence to:

ISPA/SCEA Joint International Office

527 Maple Avenue East–Suite 301, Vienna VA 22180

Fax: (703) 938-5091



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