

March 14, 2008  
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## Atlanta Section News

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### This Month's Letter from the Atlanta Section President

*Our Atlanta Section Board Meeting will be on March 18, 2008 at 5:45PM at Cross Creek Café; just before the regular section meeting starts.*

The Southern Polytechnic State University student section has their kick off meeting on February 20, 2008 6:30PM. Albert Kwong from Atlanta Section and Bill Kraus AACEI President were also present to support and advice the student section.

The student section has elected the Board of Directors; President - Assaf Newmark; Vice President - William Purdue, Treasurer – JC Rojas; Liaison Director – Rendy Tendean, Communication Director – Daniel Barnett and Dr. Itr is the Faculty Adviser.

We have generated several initiatives the

student section and Atlanta Section can collaborate; such as provide them with speaker, career advices, and mentoring.

I would like to thank Bill Kraus and all the student board for making this happen

**Albert Kwong, CCE**



### MEETING NOTES & INFORMATION

At the February 2008 meeting Wade Martin of U.S. Cost presented on the topic

#### **“Setting Contingency Using Risk Analysis”**

Wade Martin is the Vice President of Estimating Group at US Cost; he has over twenty five years of experience providing cost and value management services to private sector clients in the construction industry.

The content of Wades' presentation included “Pareto's Law” which is a theory that states that for many phenomena 80% of the effect stem

from 20% of the causes, also called the 80-20 rule.

Wade demonstrated how this rule can be applied to selected elements of an estimate to ascertain risk and establish risk contingency for a project.

Thank you Wade for an excellent & informative presentation.



## UPCOMING MARCH 18<sup>th</sup> , SECTION MEETING

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### MARCH SPEAKER TOPIC:

#### DAMAGES AND THE TOTAL COST METHOD OF COMPULATION

By **Michael C. Ray, PE, CCE, PSP, PMP**

##### **Managing Principal**

Mr. Ray spent the first twenty years of his career working for two large general contractors managing heavy construction projects - radar sites, missile sites, airports, dams, highways, mass transit, treatment plants and various other industrial and environmental restoration projects. Mr. Ray's next twenty years were spent assisting federal, state and local government and private sector clients in the management, planning, cost, scheduling and dispute resolution aspects of these projects and assessing his clients financial and business risks. He has been involved in projects in United States, Europe, Asia and the Middle East.

In 2001, Mr. Ray founded Legis Consultancy to specialize in management consulting and litigation consulting, specifically: litigation strategy, contracts, cost, schedule, risk, forensic engineering and related issues. Mr. Ray is a licensed Professional Engineer (PE), a Certified Cost Engineer (CCE), a Planning and Scheduling Professional (PSP) and a Project Management

**And by Patrick S. Ray, JD, CCC, PMP**

##### **Principal**

As a Vice President of the firm, Mr. Ray's responsibilities include operations and the firm's private sector practice. Mr. Ray previously worked as a staff consultant for a Dow-Jones Industrial Index firm, advising executive management relative to productivity and financial/cost issues. With Legis Consultancy since 2001, he assists clients with contract interpretation, labor and equipment productivity, cost estimating and analysis and forensic accounting issues related to construction, environmental remediation and building construction projects, as well as, construction claims. Mr. Ray also applies his experience to issues relating to operations and business process. Mr. Ray is a Certified Cost Consultant (CCC), and a Project Management Professional (PMP). He earned his Juris Doctorate (JD) degree in 2007

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## Common Schedule Analysis Methodology

By Mark G. Cundiff, PSP

When a Contractor argues its performance was prolonged by the Owner's action or inaction, the Contractor is essentially asserting a delay claim. "When the claim being asserted by the contractor is based upon alleged government-caused delay, the contractor has the burden of proving the extent of the delay, that the delay was proximately caused by government action, and that the delay harmed the contractor." Wilner v. United States, 24 F.3d 1397, 1401 (Fed. Cir. 1994) (en banc). **Increases in cost alone do not entitle a contractor to an equitable adjustment; there must be some proof that the Owner caused an increase in the cost and/or time required for performance of the contract. South Georgia Cleaning Services, Inc., ASBCA Nos. 38546, 40972, 93-2 BCA ¶ 25,800.**

In order to debate the particulars of what, where, when and especially why issues and matters constitute a basis of time and cost entitlement arising from a corresponding increase in the time and/or cost of completion a number of methods of Forensic Schedule Analysis have been employed over the years. All of these are intended to demonstrate entitlement for compensation, each with varying degrees of acceptance and success. The following is intended as a brief description of the common Forensic Schedule Analysis methods which may be encountered within the dispute resolution (claims) process.

Such common methods include (but are not limited to) Total Time Analysis, Bar Chart Analysis, Schedule Update Analysis, "But For" Analysis (also sometimes referred to "Would Have Been" Analysis), Time Impact Analysis and Window Analysis. These various methods incorporate varying degrees of detail, qualitative and quantitative effort required to produce results in moving from the level of "Global" Analysis to the level of a detailed "Discrete Element Analysis". Depending on the particulars of the dispute, one or more of these methods may be employed to establish or refute entitlement.

**"Total Time Analysis"** is the most "Global" of the methods. "Total Time" is virtually synonymous with "Total Cost" Analysis and is founded in the same logic of recovery, simply that one party is solely responsible for those events or non-events which caused the cumulative loss of cost and/or time in the completion of a project. The risk in pursuing such a claim is that in the event the opposing party is able to demonstrate that the claiming party relying on "Total Time" is responsible for joint and/or several responsibilities for some portion of the additional costs and delays being claimed, then "Total Time" claim is likely doomed to fail in its totality.

**"Barchart Analysis"** primarily consists of comparing the project's As-Planned activity bars to the As-Built activity bars utilizing various graphic presentations comparing individual and collective As-Planned and As-Built bars. Where it is necessary, additional bars may be added to the Bar Chart to demonstrate delay, disruption and impact.

This analysis of analysis is easy to prepare and understand. However, in contemplating its utilization various considerations should be noted. As the logic sequence, total float and free float is not shown, a simple Bar Chart Analysis may be in error due to undisclosed dependencies and logic links, errors in sequence, duration and/or lag.

**"Schedule Update Analysis"** involves a comparison of each successive update of the project "baseline" schedule. Each update is independently analyzed with responsibility for each delay determined. Total project delay responsibilities are derived from summing the delay(s) in each update.

This straight forward procedure that is moderately difficult to prepare. As the information forming the basis of the analysis is contemporaneous, results usually have high credibility as they based on actual project schedule updates. However, in contemplating its utilization, various considerations should be noted. Actual delays, impact

and disruption may not be depicted in the project schedule updates.. To the extent that delay, disruption and loss of productivity are not properly modeled within the project updates, their cause and effect will be missed in this analysis.

**Impacted “As-Planned” Analysis.** Basically incorporates “delay activities” which model the relevant delaying events and nonevents and are summarized and added to the baseline schedule between impacted activities. The baseline schedule is recalculated with the “delay activities” in place to determine the “Impacted” critical path and the “Impacted” completion date.

While this method is relatively easy to execute and can be easily understood, it can be highly subjective. Moreover, there is no consideration within this hypothetical schedule of the context of the timing of what actually occurred, especially inclement weather considerations.

**“But For” Analysis** involves utilizing the project’s “As Built” Network to isolate and depict delays, disruption and inefficiencies. A model of each causal element must be constructed within the network to quantify and demonstrate events and non-events and prolongation. The analysis usually is performed utilizing the baseline CPM schedule. In contrast to the Impacted “As-Planned” method in which delay activities are added, in this method delays are removed, according to responsibility This collapsed schedule is then presented but for these Owner caused delays, the project would have finished only X days later than planned, versus its actual finish date, Y days later than planned.

This concept is easily perceived and its results readily understood. However, the method is very time consuming and difficult to perform without interjecting subjectivity. As a consequence, its results can be susceptible to manipulation. Here too, there is no consideration within this hypothetical schedule for the context of actual timing.

**Time Impact Analysis** entails utilizing a summary of the baseline critical path (for simplicity) from which the “As-Built” critical path is developed. This is accomplished (using the same baseline activities) with delays being added between each summary activity (as necessary) using actual start and finish dates. Delay durations and responsibilities are then determined.

While this method is quite accurate, it often appears too simplistic. Moreover, it is difficult to consider and depict when the “As-Built” critical path changes from the “Baseline” critical path. It is also difficult to adequately demonstrate and quantify the cause of such diversion

**“Window” Analysis** is currently the favored method of Forensic Schedule Analysis In this method, after validating the baseline CPM, the as-built data is reviewed in detail for errors and omissions and the as built information reported into the schedule updates is verified using contemporaneous data from the field and office project records. Delays, disruption and inefficiencies are analyzed not only for the project schedule updates, but also for those periods which can be separated according to the timing of major sources of impact and/or delay. Such major events might include the discovery of changed subsurface conditions, the implementation of major change to design or specification, major calamity, weather, equipment failure, strikes and labor shortages and other.

Because of its emphasis on detail, the “Window” method is considered as an extremely accurate portrayal of the timing, source(s), cause and quantification of impact(s) over duration of a project. The preparation of a “Windows” Analysis is directly effected by the amount and quality of information available to the analyst who often includes daily time cards, daily reports, e-mail, correspondence, weather reports, daily dairies, inspector’s reports, project photographs and any other relevant source(s) of information. The process is time consuming and expensive. Because of the complexity and the amount of information and data being considered, this analysis typically requires that the results be summarized in order to be readily understood.

In practice, it is not uncommon that the time periods which define the various “windows” vary between opposing experts performing an independent analysis of the same project, often making a direct comparison between the “experts” conclusions difficult. Given the nature of the construction process, record keeping and diverse circumstance, it is improbable that Forensic Scheduling Analysis will ever reach the status of an exact science. However, as case law continues to shape the landscape, so too does the continuing effort of many dedicated professionals who to strive to establish and refine best means and practices, to the benefit of us all.

## AACEI – Atlanta Section **HOT TOPIC !!!!!!!**



### **REMINDER!! - NOTIFICATION OF UPCOMING EXAMINATION**

**US Cost is going to have an on-demand CCC/CCE test on Friday March 21, 2008. The test will start at 8:00AM; it will be a whole day event. Andreas Santoso Kristanto, CCE and Mark Cundiff, PSP will be the proctors for the exam as required by AACEI.**

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### **EMPLOYMENT OPPORTUNITIES**

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KAP Project Services in Houston has a couple of openings for Cost Engineers in our area. Some brief descriptions are included below;

#### **Mississippi Openings**

KAP Project Services is looking for **Cost Engineers** (2) and 1 **Field Cost Administrator** who can perform Cost engineering on refinery projects and Turnarounds in Mississippi. The position involves multiple projects and turnarounds and will run for 1 year +. High level knowledge in use of PC operation, spreadsheet and database software, cost control applications plus data manipulation and integration with scheduling and work processing packages.

Pay rate will be DOE hourly plus time and a half for anything over 40 hours (currently working 50+) and per diem is 105 a day by 7 days.

If interested, please send your resume to Daniel Bell at [dbell@kapproservices.com](mailto:dbell@kapproservices.com). For questions, call Daniel Bell at 281-842-8333.

#### **Louisiana Openings**

KAP Project Services is looking for Cost Engineers (2) who can perform Cost engineering on refinery projects and Turnarounds in Southern Louisiana. The position involves multiple projects and turnarounds and will run for 1 year +. High level knowledge in use of PC operation, spreadsheet and database software, cost control applications plus data manipulation and integration with scheduling and work processing packages.

Pay rate will be DOE hourly plus time and a half for anything over 40 hours (currently working 40 but will increase) and per diem is 95 a day by 7 days.

If interested, please send your resume to Daniel Bell at [dbell@kapproservices.com](mailto:dbell@kapproservices.com). For questions, call Daniel Bell at 281-842-8333

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**AACE 2007 -  
2008 Guest  
Speaker  
Schedule**

<b>Date</b>	<b>Speaker</b>	<b>Organization</b>	<b>Topic</b>
September 18, 2007	George Bradshaw	PT&C	Nuclear Power - Learning from History to Understand Costs & Mitigate Risks
October 16, 2007	Mike Bartoli	US Cost	Integration of BIMS & Estimating
November 20, 2007	William Kraus	International Aviation Consultant	Future Directions of AACE
December 18, 2007			Christmas Party @ US Cost
January 15, 2008	Kurt Nolte	US Cost	Web Based Estimating
February 19, 2008	Wade Martin	US Cost	Setting Contingency Using Risk Analysis
<b>March 18, 2008</b>	<b>Mike Ray &amp; Patrick Ray</b>	<b>Legis Consultancy Inc</b>	<b>DAMAGES AND THE TOTAL COST METHOD OF COMPULATION</b>
April 15, 2008	Joe Bruscia CCC	Bovis Lend Lease	Cost Related Issues for St.Regis Hotel
May 20, 2008	Jim Johnson	Heery International	Reinventing Yourself as a Total Cost Engineer

## AACEI ATLANTA SECTION NEWS

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### SPSU Student Chapter March'08 Meeting

AACE (Association for the Advancement of Cost Engineering International) SPSU Student Chapter would like to invite you to join our March'08 meeting. (Please see attached flyer).

Steve Williams, VP Software Development of US Cost will give presentation about Success Estimator Estimating Software and On-Screen Take Off.

The meeting will be held on Wednesday, March 19, 2008 in Room H-241.

This AACE meeting is open to everyone who seeks to advance themselves in construction management, cost management and engineering, planning and scheduling, and project management.

The meeting usually is very informational with guest speakers and experts presentation from various construction fields and expertise.

Typical topics include software products presentation, latest techniques or information, case study, BIM, and other topics related to cost engineering / estimating, value engineering, cost management, planning and scheduling, and project management.

To learn more about AACE and various resources available, please visit [www.aacei.org](http://www.aacei.org)

For additional information about AACE SPSU Student Chapter, please don't hesitate to call:

Assaf Newmark – 404-819-4663 or Rendy Tendean 770-481-1626.



## From the AACE International Website:

Since 1956, AACE International has been the leading-edge professional society for cost estimators, cost engineers; schedulers project managers, and project control specialists. With more than 5,500 members worldwide, AACE International is the largest organization serving the entire spectrum of cost management professionals. AACE International is industry independent, and has members in 78 countries and 71 local sections. If you are not a member read on to learn what AACE can do for you.

**Cost Engineering Journal** - the monthly international journal of cost estimation, cost/schedule control, and project management read by cost professionals around the world to get the most up-to-date information about the profession.

**Education** - improve your professional expertise and technical skills at AACE educational seminars, the annual meeting, and through regional and local section meetings.

**The Online Bookstore** - learn all you need to know through AACE International's first-rate publications that cover key industry-related issues of the cost and project management profession. Purchase Recommended Practices and Standards, PPG's, Transactions, and all the leading professional estimating books at substantial discounts.

**Library** - AACE International members receive FREE access to the world's largest library of cost estimating, cost/schedule control, and project management literature through interlibrary loans, literature searches, and referrals.

**Online Information** - our website includes a wealth of information. Members have access to Cost Engineering Journal, references for over 8,000 technical publications, a fully searchable database covering thousands of technical books and papers, updates to latest Recommended Practices and Standards, and much more.

**Executive Search and Employment** - find a job in cost/project management through AACE's employment referral service, resume database, or through an advertisement of your services in Cost Engineering Journal, or on our website.

**Professional Development** - increase your knowledge and professional expertise by joining one of AACE's many technical committees, subcommittees, and special interest groups (SIGs) in their effort to develop new and improved techniques for the profession and in standardizing the practice of total cost management.

**Certification** - AACE has been certifying individuals as Certified Cost Consultants (CCC)/Certified Cost Engineers (CCE) since 1976, Interim Cost Consultants (ICC) since 2000, Planning & Scheduling Professionals (PSP) since 2004, and Earned Value Professionals (EVP) since 2005. At the 2007 Annual Meeting, AACE will hold its first public offering of the Certified Forensic Claims Consultant (CFCC). AACE is also working diligently to create the Certified Portfolio, Program, & Project Management Manager (C3PM) and the Certified Estimating Professional (CEP). Accredited by the Council of Engineering and Scientific Specialty Boards (CESB), CCE and CCC are the only internationally-recognized certifications for cost management professionals.

**Networking and Contacts** - take advantage of numerous opportunities to network with your peers and expand your circle of valuable business contacts; join a local section and participate in local activities, attend the annual meeting, or join one of our several technical committees and special interest groups.

**Annual Meeting** - see and hear outstanding technical presentations, panel discussions, workshops, tours, and guest speakers at the AACE International Annual Meeting.

**AACEI Atlanta Section 2007 – 2008 Officers**

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Membership Director: Jay Carson CCC [jay.carson@ptcinc.com](mailto:jay.carson@ptcinc.com)

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The Atlanta Section would also like to thank Legis Consultancy for hosting the AACEI Atlanta Section Website throughout the 2007-2008 year.



**LEGIS**  
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**CONSULTING**

Legis Consultancy, Inc., with offices in suburban Atlanta, Georgia, and Sarasota, Florida, is a consulting firm with three distinct, yet related, practice areas:

**Litigation Management  
Engineering**