

Tuesday Agenda - May 12, 2009

<i>Paper</i>	<i>Time</i>	<i>Event or Paper Title/Author/Description</i>
	05:00 PM - 07:00 PM	Registration Open Registration table open for conference registration, conference check-in and receipt of conference materials.
	05:00 PM - 07:30 PM	Set Up Exhibits The exhibit space will be open for the Pipeline Simulation Solution Providers to set up their exhibit tables.
	06:00 PM - 07:30 PM	Ice-Breaker Reception For those arriving on Tuesday, mix and mingle with other conference attendees in a relaxed setting. Catch up with old friends and meet new ones. Drinks and snacks provided. Complimentary for registered conference attendees and their guests.

Wednesday Agenda - May 13, 2009

<i>Paper</i>	<i>Time</i>	<i>Event or Paper Title/Author/Description</i>
	07:30 AM - 08:00 AM	Registration Open Registration table open for conference registration, conference check-in and receipt of conference materials.
	07:30 AM - 08:00 AM	Continental Breakfast A complimentary continental breakfast (coffee, juices, pastries, etc.) will be available.
	07:30 AM - 08:00 AM	Exhibits Open Pipeline Simulation Solution Providers will be available to discuss and demonstrate their products and services.
	08:00 AM - 12:05 PM	Technology Showcase - Product Demonstrations Based on its overwhelming success last year, PSIG is proud to continue this new event. Solution Provider representatives will be demonstrating solutions to problems of their own design for the general audience. This will be an opportunity for attendees to see highlighted software features from each participating Solution Provider including new technology and improved solution techniques.
	08:05 AM - 08:35 AM	Technology Showcase - Gregg Engineering
	08:35 AM - 09:05 AM	Technology Showcase - GL Industrial Services Technology
	09:10 AM - 09:40 AM	Technology Showcase - Energoavtomatika Ltd
	09:40 AM - 10:10 AM	Technology Showcase - Atmos International
	10:10 AM - 10:30 AM	Break Time to stretch and get prepared for the next round of demonstrations
	10:30 AM - 11:00 AM	Technology Showcase - Neotech
	11:00 AM - 11:30 AM	Technology Showcase - LIWACOM
	11:35 AM - 12:05 PM	Technology Showcase - ESI
	12:05 PM - 01:30 PM	Lunch and Presentations There will be a short welcome address followed by the Pipeline Simulation Solution Providers who will introduce themselves and briefly describe their products and services. Complimentary for registered conference attendees.

Wednesday Agenda - May 13, 2009

Paper	Time	Event or Paper Title/Author/Description
09A3	03:30 PM - 04:15 PM	Gas Network Simulation and Uncertainty of Pipe Leg Surrounding Parameters Martin Styblo Simone Research Group Zdenek Vostry Simone Research Group Users of simulation packages are interested rather in accuracy of simulated scenarios than in precise description of heat dynamics phenomenon. We shall discuss impact of the surroundings' parameters of the heat exchange model (geometry, heat conductivity, heat capacity and density, and far soil temperature) on the results that are usually considered by the users as a measure of accuracy, as their uncertainty is usually very high. A case study will be presented, illustrating the influence of heat transfer parameters in situations mostly met in practical tasks (steady-state and transient ones). The aim is to bring reasonable engineering guidelines how to cope with this uncertainty.
09B3	03:30 PM - 04:15 PM	How to Fabricate Reasonable and Useful Performance Curves for a Centrifugal Pump Based on a Single Operating Point at BEP Tom Hill Advantica This paper identifies procedures which can be used to quantify reasonable and useful data arrays for head versus flow, efficiency versus flow, and BHP versus flow of a centrifugal pump for use in hydraulic simulation models. Data arrays for positive pump head, efficiency, and BHP versus flow can be fabricated reasonably well using statistical correlations based on a large collection of such data for various types of centrifugal pumps. This paper provides details of those performance correlations, with discussion of their applicability and limitations.
09A4	04:15 PM - 05:00 PM	Tutorial on Modeling of Gas Turbine driven Centrifugal Compressors Fred Odom GTC Consulting Gordon L. Muster El Paso Corporation This paper describes the fundamental performance of gas turbines and centrifugal compressors and how to model them for pipeline simulations. Presented in this paper is a straightforward, simple and accurate method of modeling turbomachinery performance, which is not specific to any manufacturer's performance curve format, is easily input into your pipeline simulation model and includes factors for contamination and degradation to more realistically predict the performance. And, this paper also presents a template model of a gas turbine driven centrifugal compressor, which will accept curve-fit coefficients of your turbomachinery to simulate it in your pipeline simulation software.
09B4	04:15 PM - 05:00 PM	Why Go to Paradise When You Can Stay in Stockton? Lisa Callaghan Energy Solutions International Inc. John Anderton Energy Solutions International Inc. This paper discusses the installation and testing of an off-the-shelf model based leak detection system. The presentation discussed how the solution provided a flexible solution and used advanced tools to identify optimum leak detection performance. Further, it describes the benefits and pitfalls of a globally diverse team.
	05:00 PM - 07:00 PM	Exhibits Open Pipeline Simulation Solution Providers will be available to discuss and demonstrate their products and services.

Thursday Agenda - May 14, 2009

<i>Paper</i>	<i>Time</i>	<i>Event or Paper Title/Author/Description</i>										
	07:30 AM - 08:00 AM	<p>Registration Open</p> <p>Registration table open for conference registration, conference check-in and receipt of conference materials.</p>										
	07:30 AM - 08:00 AM	<p>Continental Breakfast</p> <p>A complimentary continental breakfast (coffee, juices, pastries, etc.) will be available.</p>										
	07:30 AM - 08:00 AM	<p>Exhibits Open</p> <p>Pipeline Simulation Solution Providers will be available to discuss and demonstrate their products and services.</p>										
	07:30 AM - 08:00 AM	<p>Presenter Orientation Meeting</p> <p>Meeting between Presenters of General Session Papers and a PSIG Director to be held in the same conference room as their presentation. This is to familiarize the speaker with the amenities in the room, presentation equipment available and PSIG presentation guidelines.</p>										
	08:00 AM -	<p>Conference General Session</p> <p>Start of the Thursday PSIG General Session.</p>										
0901	08:00 AM - 08:45 AM	<p>Important Aspects of Gas Temperature Modeling in Long Subsea Pipelines</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Joakim Ramsen</td> <td style="width: 50%;">Polytec R & D Foundation</td> </tr> <tr> <td>Svein-Erik Losnegård</td> <td>Polytec R & D Foundation</td> </tr> <tr> <td>Leif Idar Langelandsvik</td> <td>Gassco AS.</td> </tr> <tr> <td>Willy Postvoll</td> <td>Gassco AS.</td> </tr> <tr> <td>Are J. Simonsen</td> <td>Dynavec AS</td> </tr> </table> <p>This paper focuses on heat transfer modeling, and how this affects the modeled gas temperature in long subsea pipelines. Total heat transfer coefficients for different conditions have been studied, and the most important parameters associated with this coefficient have been identified. An analytical model has been used to calculate the total heat transfer coefficient when the pipeline is partially buried.</p>	Joakim Ramsen	Polytec R & D Foundation	Svein-Erik Losnegård	Polytec R & D Foundation	Leif Idar Langelandsvik	Gassco AS.	Willy Postvoll	Gassco AS.	Are J. Simonsen	Dynavec AS
Joakim Ramsen	Polytec R & D Foundation											
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Leif Idar Langelandsvik	Gassco AS.											
Willy Postvoll	Gassco AS.											
Are J. Simonsen	Dynavec AS											
0902	08:45 AM - 09:30 AM	<p>The Integrated Application of Pipeline Models and Gas Management Systems to Gas Transmission Networks</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Antonius Aris Sudjatmiko</td> <td style="width: 50%;">PGN</td> </tr> <tr> <td>Adam Bawono</td> <td>PGN</td> </tr> <tr> <td>Andrew Liddell</td> <td>ATMOS International</td> </tr> <tr> <td>Einac van Meurs</td> <td>ATMOS International</td> </tr> <tr> <td>Jun Zhang</td> <td>ATMOS International</td> </tr> </table> <p>This paper addresses gas nominations and allocations in gas transmission networks. An integrated system of nominations and on-line simulation will be described, followed by a demonstration.</p>	Antonius Aris Sudjatmiko	PGN	Adam Bawono	PGN	Andrew Liddell	ATMOS International	Einac van Meurs	ATMOS International	Jun Zhang	ATMOS International
Antonius Aris Sudjatmiko	PGN											
Adam Bawono	PGN											
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	09:30 AM - 10:00 AM	<p>Conference Break & Exhibits Open</p> <p>Visit with the Pipeline Simulation Solution Providers to see the latest in pipeline simulation technology.</p>										
0903	10:00 AM - 10:45 AM	<p>Using Optimization in Transient Gas Transmission</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Henry Rachford</td> <td style="width: 50%;">Advantica</td> </tr> <tr> <td>Richard Carter</td> <td>Advantica</td> </tr> <tr> <td>Todd Dupont</td> <td>Advantica</td> </tr> </table> <p>Optimization for real time support requires rapid, accurate determination of the current pipeline system state, i.e., the flow and pressure by milepost. In the past, on-demand availability of a current state for launching forward simulations has often been compromised by one or more SCADA outages. This paper presents new work which uses optimization to determine an accurate pipeline state in a few minutes requiring only the most recent ½-hour's SCADA history; we show by example that this functionality is effective even if some of the data are bad or missing.</p>	Henry Rachford	Advantica	Richard Carter	Advantica	Todd Dupont	Advantica				
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Todd Dupont	Advantica											

Thursday Agenda - May 14, 2009

<i>Paper</i>	<i>Time</i>	<i>Event or Paper Title/Author/Description</i>
0904	10:45 AM - 11:30 AM	Network Simulation of Transmission and Distribution Systems Tom van der Hoeven GasTerra Stationary simulation of a network is actually finding a solution within constraints. If there is more than one solution one should take the best one. This presentation shows the relations and the constraints. A demo will be given to show the principles.
	11:30 AM - 01:00 PM	Lunch Complimentary lunch for registered attendees.
	12:30 PM - 01:00 PM	Exhibits Open Pipeline Simulation Solution Providers will be available to discuss and demonstrate their products and services.
	01:00 PM - 01:45 PM	Chairman's Session The PSIG Chairman will conduct a business meeting to discuss: results of last years' evaluation sheets, officer elections, future conference locations, best paper awards, special announcements and other topics of interest.
0906	01:45 PM - 02:30 PM	Monte Carlo Simulation - A Key for a Feasible Gas Pipeline Design Sidney P. Santos Petrobras Gas & Energy This paper presents a case study that proves Monte Carlo Simulation to be of fundamental importance in gas pipeline design in conjunction with thermo-hydraulic simulation and feasibility studies. Contractual firm transmission capacity is fully dependant of this type of analysis that provides a risk mitigation approach that supports sustainable projects.
0907	02:30 PM - 03:15 PM	Temperature Issues in Gas Transmission Günter Wagner LIWACOM Zdeněk Vostrý SIMONE Research Group Transport capacity and operating costs are key performance indicators for a gas transmission system. Gas temperature impacts on both of these indicators. This paper assesses the significance of the relevant temperature effects on transport capacity and operating costs.
	03:15 PM - 03:45 PM	Conference Break & Exhibits Open Visit with the Pipeline Simulation Solution Providers to see the latest in pipeline simulation technology.
0908	03:45 PM - 04:30 PM	Integrating GIS with Pipeline Simulation Software Clay Noble Targa Resources, Inc. Michael L. Istre Gregg Engineering For a while energy companies, including gas gatherers, and transmission and distribution companies have been using pipeline simulation to design and operate pipeline systems. Recently they have also begun using Geographic Information Systems (GIS) to make maps, meet regulatory requirements, and as a business development and planning tool. Because GIS and pipeline simulation software have similar characteristics and use similar data these companies have begun integrating the two. This paper discusses the issues and experiences of creating pipeline simulation models from GIS and displaying the results in GIS.
	04:30 PM - 06:00 PM	Exhibits Open Pipeline Simulation Solution Providers will be available to discuss and demonstrate their products and services.
	06:00 PM - 07:30 PM	Evening Reception Mix and mingle with other conference attendees. Catch up with old friends and meet new ones. This is the slightly more formal of the two evening receptions. Appetizers and drinks provided. Complimentary for registered conference attendees and their guests.

Friday Agenda - May 15, 2009

<i>Paper</i>	<i>Time</i>	<i>Event or Paper Title/Author/Description</i>
	07:30 AM - 08:30 AM	<p>Continental Breakfast</p> <p>A complimentary continental breakfast (coffee, juices, pastries, etc.) will be available.</p>
	07:30 AM - 08:30 AM	<p>Exhibits Open</p> <p>Pipeline Simulation Solution Providers will be available to discuss and demonstrate their products and services.</p>
	08:00 AM - 08:30 AM	<p>Presenter Orientation Meeting</p> <p>Meeting between Presenters of General Session Papers and a PSIG Director to be held in the same conference room as their presentation. This is to familiarize the speaker with the amenities in the room, presentation equipment available and PSIG presentation guidelines.</p>
	08:30 AM -	<p>Conference General Session</p> <p>Start of Friday Conference General Session</p>
0910	08:30 AM - 09:15 AM	<p>A Route Planner for Gas Transport Through the Netherlands Jan Willem Turkstra N.V. Nederlandse Gasunie Bert Kiewiet N.V. Nederlandse Gasunie Robert van der Geest N.V. Nederlandse Gasunie</p> <p>This paper discusses the development of an on-line model-based decision support tool, also known as the 'route planner for gas transport'. The route planner is an on-line tool that advises dispatchers to minimise operational cost while maintaining security of supply. A model of the gas transport network in The Netherlands is configured and subsequently optimised with CPLEX solver algorithms within a few seconds. Key functionality of the route planner is a new pre-processor to translate a complex, non-linear optimization problem into an LP problem. During the session a live presentation of the functional prototype of the route planner will be given.</p>
0911	09:15 AM - 10:00 AM	<p>State Estimation in Online Models Jason Modisette ATMOS International, Inc.</p> <p>This paper discusses several approaches to making the best use of the full set of available measurements to drive an online pipe model: a maximum-likelihood estimate run on each timestep individually, a Kalman filter which includes the evolution of the system over time, the Equal Error Fractions approach, and a simple pressure-boundary-based scheme. Implementations of these different approaches will be compared for simple slingshot gas and liquid pipelines in the presence of various sorts of instrument error.</p>
	10:00 AM - 10:30 AM	<p>Conference Break & Exhibits Open</p> <p>Last chance to visit with the Pipeline Simulation Solution Providers to see the latest in pipeline simulation technology.</p>
0912	10:30 AM - 11:15 AM	<p>A Step Forward: An Effort to Automate the Search for a Better Place. A Modeling Experience María Dolores Varela Pereira ENAGAS Rafael Noguero Energy Solutions International Juan Serifiá Energy Solutions International</p> <p>This paper is the result of a test case that evaluated various options to obtain economical solutions for the daily operation planning for the Enagas pipeline network in Spain. The exercise involved the building of a set of spreadsheet-based models, the automation, and the evaluation of more advanced techniques in search for optimal solutions. The paper establishes the framework for the possible implementation of a transportation decision support tool using the described techniques in combination with real time and predictive models.</p>
0913	11:15 AM - 12:00 PM	<p>Modeling Emergency Shutdowns of Centrifugal Compressors Rainer Kurz Solar Turbines, Inc. Robert C. White Solar Turbines, Inc.</p> <p>Emergency shutdowns in compressor stations cause fast transients in the operating conditions. The paper and presentation will address the physics of compressor surge, as well as the physics that have to be modeled to describe the system behavior during these fast transients. Sample calculations are presented.</p>

Friday Agenda - May 15, 2009

<i>Paper</i>	<i>Time</i>	<i>Event or Paper Title/Author/Description</i>
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	12:00 PM -	Conference Adjourn
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	01:00 PM -	Golf Event
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For an additional fee, attendees may participate in a golf outing at the Moody Gardens Golf Course.