INFORMS Roundtable Spring Meeting Agenda
April 6-7, 2013
Grand Hyatt San Antonio
Theme: "Roundtable Member Companies"

Saturday, April 6th

3:30PM   *San Antonio River Cruise*   *San Antonio River*

Join us for a chartered cruise on the San Antonio River. This narrated cruise will tour the river along the San Antonio River Walk. (http://www.riosanantonio.com/) We'll meet in the hotel lobby at 3:30 pm and then take a very short walk outside to the chartered river boat. We plan to be back at the hotel around 5 pm.

6:00PM   *Reception*   *Crockett*

7:00PM   *Dinner*   *Crockett*

8:00PM   *Overview & Roundtable Introductions*   *Crockett*

Sunday, April 7th

7:00AM   *Continental Breakfast*   *Texas E*

8:00AM   *Opening Remarks*   *Texas E*

8:30 AM   *Wagner Associates – Fifty Years of Excellence*   *Texas E*

Dr. Allen Butler, President, Daniel H. Wagner Associates

In this talk, Dr. Butler will give an overview of the company, from its historic beginnings in 1963 through its current role today. In 1963, Dr. Dan Wagner founded his eponymous company with two guiding principles in mind. First, Dan believed in hiring young mathematicians and training them to solve real-world problems. Second, Dan felt the quality of the writing in the technical reports and briefings provided to the clients was nearly as important as the technical content itself. To this end, and while the company size was small, Dan personally reviewed every scrap of paper that went out under the company name. Through the years, the company developed an impressive reputation for

mathematical analysis applied to the budding field of Search Theory (find the H-bomb, find the treasure, find the enemy submarine, etc.), and this continues to be an area of expertise today. At the same time, the company demonstrated the breadth of its capabilities by working in areas as diverse as DNA sequencing, retirement planning, crane anti-sway, speech recognition, speaker verification, and random number generation on GPUs.

Dr. Allen Butler holds a B.A. in Mathematics from Texas Tech University and a Ph.D. in Mathematics from the University of Illinois, Champaign-Urbana (Functional Analysis). He has been employed at Daniel H. Wagner Associates, Inc. since 1987 and has served as President since 2008. Throughout his career, Dr. Butler has served as the principal investigator for Department of Defense R&D projects involving a variety of mathematical disciplines as applied to areas such as tracking, track correlation, data fusion, and search optimization. He has been involved in the development and implementation of optimal search techniques for a number of projects, including a research effort whose goal was the interdiction of narcotics smugglers in the Caribbean. Dr. Butler is an internationally recognized expert in data fusion and occasionally instructs three or four-day seminars on Multi-Sensor Data Fusion and Applied Kalman Filtering offered both nationally and internationally. Dr. Butler holds one patent for an algorithm designed to use surface search radar to anticipate and prevent runway incursions at major airports. In addition to INFORMS, he is a member of the American Mathematical Society, the Mathematical Association of America (where he currently serves on the Board of Governors), the IEEE, Society for Industrial and Applied Mathematics, and a number of industry specific professional organizations.

Dr. Butler is the chair of the INFORMS Prize Committee for the "Daniel H. Wagner Prize for Excellence in Operations Research Practice" and is also a visiting lecturer for SIAM.

9:15AM   **Break**

9:30AM   **Operations Research at The Boeing Company**   **Texas E**

Michael Grant, Senior Manager Operations Research, Boeing Research and Technology

Operations Research (OR) and advanced analytics are used extensively throughout The Boeing Company. This presentation will provide an overview of the Operations Research Group which resides in Boeing Research & Technology and provides OR support throughout the company in both government and commercial divisions. The talk will discuss issues pertinent to the Roundtable such as internal marketing, organizational structure, and funding issues. Several representative projects will be presented. Projects typically focus on resource allocation, planning, sequencing, assignment, routing, scheduling, inventory management, forecasting and system modeling.

Michael Grant leads a team applying operations research technologies throughout commercial, military, and research organizations in Boeing. His group researches and develops algorithms, heuristics, and computational techniques for analyzing the performance of Boeing products, services, and processes. His educational background includes a B.S. in Operations Research from the United States Air Force Academy, an M.S. in Operations Research from the Air Force Institute of Technology, an M.S. in Industrial Engineering from St. Mary's University, and an MBA from the University of Texas at San Antonio.

10:15AM   *Break*

10:30 AM   *Operations Research and Advanced Analytics at Air Products and Chemicals   Texas E*

Brent Peterson, Senior Advanced Analytics Associate, Air Products and Chemicals

Air Products provides atmospheric, process and specialty gases; performance materials; equipment; and technology. For over 70 years, the company has enabled customers to become more productive, energy efficient and sustainable. More than 20,000 employees in over 50 countries supply innovative solutions to the energy, environment and emerging markets. These include semiconductor materials, refinery hydrogen, coal gasification, natural gas liquefaction, and advanced coatings and adhesives. In fiscal 2012, Air Products had sales approaching $10 billion.

Air Products has an established commitment to Operations Research and Advanced Analytics. Under various names, the Decision Sciences group has been in existence for over 40 years providing significant benefits for the company. The group works on large problems like Vehicle Scheduling, Production Scheduling and Network Optimization, as well as, smaller efforts like Customer retention, Vehicle Maintenance, Asset Location, and Supply Chain optimization. In 2005, Air Products was recognized for this sustained performance with the INFORMS prize. This presentation will review the current organization, the business problems it has solved, the challenges it faces, and its strategy going forward.

Brent Peterson is currently a Senior Advanced Analytics Associate at Air Products within the Decision Sciences group where he is responsible for analytics in the Electronics Group, the Performance Materials Group, Corporate Marketing, and Asia. Brent joined Air Products in 1981 as an Operations Research Analyst where he worked on Customer Sourcing, Vehicle Scheduling, and Supply Chain Optimization problems. Brent has also worked within the business, holding various roles within our Liquid/Bulk and SAP Implementation teams. Brent holds B.S. in Computer Science and Operations Research from Miami University and an M.S. in Operations Research and Statistics from Rensselaer Polytechnic Institute.

11:30 AM   *Lunch*   *Texas E*

1:00 PM   *Analytics at Ford Motor Company*   *Texas E*

John Ginder, Manager, Systems Analytics and Environmental Sciences Department, Ford Motor Company

Ford Motor Company designs and builds vehicles for global markets at facilities in 23 countries, utilizes a complex supply chain to deliver materials and components to our manufacturing facilities, markets the vehicles, ships them to dealers, and provides financing to customers. In 2012, Ford had revenue of $134 billion, pre-tax profit of $8 billion, and around 200,000 employees worldwide. Analytics, operations research, and management science is used heavily across Ford operations to run the business, inform decisions, and determine strategy. Ford Credit, Marketing and Sales, Finance, Purchasing, and Product Development are among the organizations that develop or consume analytics at Ford. This talk will primarily highlight the Systems Analytics and Environmental Sciences activity, which develops and applies a variety of mathematical, simulation, operations research, and information technology approaches to problems in business operations, corporate strategy, and environmental sustainability, and which serves as an internal consultancy for the company.

John Ginder joined Ford as a Research Scientist in 1990, leading research on 'smart' materials, nanomaterials, and transportation energy before transitioning to a management role. He currently is Manager of the Systems Analytics and Environmental Sciences department in Ford Research and Advanced Engineering in Dearborn, Michigan, specializing in operations research, predictive analytics, data and text mining, and environmental science. He received a B.S. degree in Physics from Rensselaer Polytechnic Institute and M.S. and Ph.D. degrees in Physics from The Ohio State University.

1:45 PM   *Break*

2:00 PM   *Special Session: What does the Roundtable Think?*   *Texas E*

Facilitated by Jan Browder and Kathy Lange

The Roundtable is comprised of leaders of the OR/MS industry. This will be a session discuss important issues facing the Roundtable, INFORMS, and the OR/MS industry. The goal of this session is to provide a highly interactive and interesting discussion.

Topic: Advanced Analytics - What does it mean in your company, today, in the future? When considering the broad set disciplines that can be included in Advanced Analytics, which of these are you finding to be the most important for your company at this time, in the future?
1. For the current focus, which area(s) are the most important and how are they being deployed?

2. Based on your company's future plans in this area, in what areas will you expand and what do you need to do to be better prepared? (personnel, tools, training, etc.)

Areas for Consideration:
- Decision Support (Mathematical Modeling & Simulation, Risk Analysis)
- Predictive Analytics (Data Mining & Behavioral Analysis, Statistical Modeling)
- Resource Allocation (Scheduling Techniques, Operations Analysis, Transition Planning)
- Process Improvement (Systems Engineering, Lean Six Sigma, Business Process Modeling)
- Systems Analysis (Statistical Analysis, Performance Analysis)
- Performance Management (Organizational Assessment)
- Operations Analysis & Support (Operational Simulation, Requirements Development & Innovation)

3:30PM   *Roundtable President's Remarks*   *Texas E*

Bill Browning, INFORMS Roundtable President

Bill will provide an update on future Roundtable meetings.

3:45PM   *Analytics Maturity Model Discussion*   *Texas E*

Norm Reitter, Chair of the INFORMS Analytics Maturity Model Committee, will present the latest model to the Roundtable for discussion and feedback.

4:00PM   *Session with INFORMS President-Elect, Stephen Robinson*   *Texas E*

Our session with Steve Robinson, INFORMS President-Elect, will include a brief introduction and discussion of his vision for INFORMS, and then updates/discussion on the following topics:

- Analytics maturity model
- Analytics certification
- Continuing education
- INFORMS Fellows program
- INFORMS communities (societies, sections, chapters, fora)

5:00PM   *Conclude*

Tuesday, April 9th

5:30PM   *Informal Networking Dinner (Dutch Treat)*   *Boudro's*

Participants should meet in the lobby no later than 5:30 pm. We'll walk to the restaurant.

Boudro's
http://www.boudros.com/

Roundtable Suite   *Room 648*

The **Roundtable Suite, Room 648,** is available 24 hours a day from 3PM on Friday, April 5 until Noon on Wednesday, April 10. The suite is for Roundtable members and their guests to use as a lounge during the Roundtable and INFORMS meetings. It is great for small group discussions or a quiet place to take a break during the conference. Room keys will be available Saturday evening.

Wireless Internet Access

Wireless Internet access is available in the meeting room. To access the Internet select "Hyatt Meetings". The password is informs.