



## SPEAKER BIOGRAPHIES

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### Improving the Fuel Economy of Heavy Duty Fleets II Workshop

Hilton San Diego Resort – San Diego, CA  
February 20, 2008

## Welcome

### **Dr. Alan C. Lloyd**

*President, International Council on Clean Transportation*

Reno, NV - USA

Alan C. Lloyd is the President of the International Council on Clean Transportation. He served as the Secretary of the California Environmental Protection Agency from 2004 through February 2006 and as the Chairman of the California Air Resources Board from 1999 to 2004. Prior to joining CARB, Dr. Lloyd was the Executive Director of the Energy and Environmental Engineering Center for the Desert Research Institute at the University and Community College System of Nevada, Reno, and the chief scientist at the South Coast Air Quality Management District from 1988 to 1996. Dr. Lloyd's work focuses on the viable future of advanced technology and renewable fuels, with attention to urban air quality issues and global climate change. A proponent of alternate fuels, electric drive and fuel cell vehicles eventually leading to a hydrogen economy, Dr. Lloyd was the 2003 Chairman of the California Fuel Cell Partnership and is a co-founder of the California Stationary Fuel Cell collaborative. He earned both his B.S. in Chemistry and Ph.D. in Gas Kinetics at the University College of Wales, Aberystwyth, U.K.

## Session 1

### **Mr. David Branyon**

*Manager of Engine Development, Southwest Research Institute*

San Antonio, TX

Mr. Branyon leads the Engine Development group of the Engine Design and Development Department at Southwest Research Institute. In this role, he oversees engine performance and emissions development for a wide range of engine programs, from minor upgrades to support of clean-sheet engine designs for clients. He has a BSME and MSME from Texas A&M University and has 11 years of industry experience prior to joining SwRI. His experience has included both cycle simulation and engine performance and calibration development. The industry engine performance experience has included engines of 2.5 to 11 liters per cylinder displacement, with a broad range of engine development experience during his time at SwRI. Cycle simulation experience has included software development and operation during his university period and additional work on a wide variety of engines while at SwRI. Mr. Branyon has been responsible for the complete performance development work on several engines through to production calibrations and has experience solving field calibration and performance issues as well.

### **Ms. Coralie Cooper**

*Transportation Program Manager, Northeast States for Coordinated Air Use Management*

*(NESCAUM) / Northeast States Center for a Clean Air Future (NESCCAF)*

Boston, MA

Ms. Coralie Cooper joined NESCAUM and NESCCAF in 1997 and is currently Transportation Program Manager. Since joining the organization, she has been responsible for working with the eight Northeast states to reduce mobile source pollution (including emissions from cars, trucks, buses, and nonroad equipment). This has included work on light and heavy duty vehicle fuels issues, coordination of efforts to adopt California's standards for light and heavy-duty vehicles, and overseeing technical studies on and pilot projects to reduce GHGs and criteria pollutants from mobile sources. Ms. Cooper has an MCP degree in Environmental Policy from the Massachusetts Institute of Technology and a BA from Boston University.

**Dr. Robert P. Wilson**

*Managing Director, TIAX LLC.*  
Cambridge, MA

Dr. Wilson, a Managing Director in TIAX's Clean Energy Unit, has broad experience solving alternative fuel and emission control problems associated with automotive and stationary engines, power plant boilers, and industrial furnaces. He has worked on new combustion technology for diesel and spark-ignition engines, burners, furnaces, and gas turbines. At TIAX, Dr. Wilson recently completed an in-depth long range forecast of gas-to-liquid (GTL), biodiesel, and other alternative fuels for the automotive sector. He also led an investigation of how automotive engines could be redesigned and optimized to benefit from the properties of ethanol (E85 to E100). Dr. Wilson received his B.S. degree in Aeronautical Engineering from Princeton University and a Ph.D. in Engineering Physics from the University of California, San Diego. He is a member of the Combustion Institute, the American Society of Mechanical Engineers, and the Society of Automotive Engineers.

**Session 2**

**Mr. Bill Van Amburg**

*Senior Vice President, WestStart – CALSTART*  
Pasadena, California

Mr. Van Amburg leads major programs and overseas teams in five program areas: heavy hybrids; new fuels; technology commercialization; fleet analysis and consulting; and industry services. A key role is with the Hybrid Truck User Forum (HTUF), a national program to speed the commercialization of heavy-duty hybrid trucks, operated in a partnership with the US Army's National Automotive Center (NAC). Bill brings more than 30 years of experience in marketing and market development, technology commercialization, communications and environmental markets, including emission credit trading. He has a bachelor's degree in Anthropology from the University of California Berkeley, a certificate in Brand Management from the Stanford Alumni Association, and is a graduate of the Executive Management Program at the UCLA Anderson School of Management. Prior to joining CALSTART in 1993 he was an Emmy Award-winning broadcast journalist covering science, technology and the environment.

**Ms. Cheryl L. Bynum**

*Lead, Technology and Fuels Team, SmartWay Transport Partnership, U.S. Environmental Protection Agency*  
Ann Arbor, Michigan City

Ms. Bynum is a senior program analyst for the U.S. Environmental Protection Agency. She has worked for the EPA since the early 1990's. Prior to joining EPA, Ms. Bynum had a career in the transportation industry, holding positions with a trucking company, a containership line, and a freight shipper. At EPA, Cheryl has a key leadership role in technology verification for the Agency's innovative partnership with the freight industry, SmartWay™ Transport Partnership. Her current interest is to develop test protocols to quantify the fuel and emissions benefits of emerging technologies for commercial trucks, including hybrid vehicles and vehicles with advanced aerodynamics and tires. Developing test protocols that simulate "real world" conditions will help accelerate deployment of cleaner, more efficient freight transport. Ms Bynum is an SAE member and graduate of the University of Michigan. She lives in Ann Arbor, Michigan.

**Dr. Axel Friedrich**

*Head of the Environment, Transport, and Noise Division of the Federal Environmental Agency*  
Berlin, Germany

Axel Friedrich is the Head of the Division for Environment, Transport, and Noise at the Umweltbundesamt (UBA), the Federal Environmental Agency of Germany and been with the agency

for more than 28 years. This division deals with all transportation related environmental issues, including climate change, air pollution, noise, and planning. A technical chemist from the Technical University of Berlin, Dr. Friedrich has directed both the Marine and Environmental Protection section and the Refineries, Fuels, and Reduction of Organic Compounds section of the UBA. Dr. Friedrich has special interest in sustainable transport, alternative fuels, I/M, non-regulated emissions, and the influence of fuels on emissions. He is the Chairman of the OECD working group on transport, founding member of the ICCT, and 2006 Haagen-Smit Award recipient.

**Dr. Susumu Sato**

*Researcher, Environmental Research Department, National Traffic Safety and Environment Laboratory (NTSEL)*

Tokyo - Japan

Dr. Sato is a researcher at the Environment Research Department at the National Traffic Safety and Environment Laboratory in Tokyo. Susumu studied Homogeneous Charge Compression engine in his university years and now studies On-Board Measurement System, gasoline engine and LPG engine. He also works on the GHG emission of heavy-duty vehicles and the test methods of fuel economy. Dr. Sato has a Bachelor's degree in History and Master's and Doctorate degrees in Engineering from Keio University in Japan. He is also a member of the Society of Automotive Engineers (SAE), JSAE, and the Japan Society of Mechanical Engineers (JSME).

## Keynote Address

**Mr. Mitch Greenberg**

*Manager, SmartWay Transport Programs, US Environmental Protection Agency (EPA)*  
Washington, DC

Mr. Greenberg manages EPA's SmartWay Programs, public-private partnerships designed to create greater demand for cleaner, more sustainable transportation choices. Nearly 700 companies are actively participating in SmartWay by adding innovative technology and strategies to their fleet operations. Mitch brings over 17 years of experience in engineering, marketing, and program development. Prior to SmartWay, Mitch managed EPA's Voluntary Diesel Retrofit Program and has worked on light-duty vehicle, on-highway and off-road engine emissions compliance programs. Mitch received his Bachelor's degree in Aerospace Engineering from the University of Maryland at College Park in 1990.

## Session 3

**Mr. Richard Coryell**

*Heavy Duty Hybrid Program Manager, Eaton Corporation*  
Galesburg, Michigan – USA

Mr. Coryell has recently joined Eaton Corporation as the Program Manager for its Heavy Duty Hybrid program, due to go into production at the end of 2009. Previously, he has been involved in diesel fuel system and engine design and development for Cummins, Inc. from 1990 to 2006. He holds a BSc in Mechanical Engineering from Virginia Tech, a MSc in Mechanical Engineering from North Carolina State University, and an MBA from the University of Oxford, England.

**Mr. Anthony Greszler**

*Vice President of Advanced Engineering, Volvo Powertrain North America*  
Baltimore-Washington DC

Mr. Greszler has been involved with diesel engine design and development since 1977. His diesel experience includes all mechanical systems, cooling, lubrication, performance development, emissions, controls, and advanced concepts. He has also been involved with heavy-duty natural gas

engines and other fuel alternatives, particularly DME. From 1977-2001 he was with Cummins Engine Co. responsible for design and development of heavy-duty diesel engines, including 2 years in Europe on N14 and L10 engines and 8 years as L10 & M11 Chief Engineer, including on-highway and off-highway applications. In 2001, he became Vice President, Engineering for Volvo Powertrain, North America with responsibility for engine development for Mack Trucks and Volvo Trucks North America, including Mack ETECH, ASET, and E7 natural gas engine, support for Volvo D12 in North America, and development for future North American engines including US 2007 and 2010 emissions. In 2005, he took responsibility for Advanced Engineering for Engines and Vehicle Propulsion with focus on diesel combustion/emissions, hybrid propulsion, and alternative fuels. He serves on the Executive Council of the Engine Manufacturers Association. Volvo Powertrain, a division of Volvo AB, is responsible to supply engine, transmission, and drive train components to all Volvo divisions including Volvo Trucks, Mack Trucks, Renault VI, Nissan Diesel, Volvo Construction, Volvo Penta, and Volvo Bus. Volvo Powertrain is the world's largest supplier of 9-16 liter diesel engines. Mr. Greszler has a BS and an MS degree in Mechanical Engineering from Case Western Reserve University in Cleveland, Ohio.

**Mr. Dennis Kramer**

*Engineering Director, Advanced Engineering Group, ArvinMeritor*  
Michigan – USA

Dennis Kramer brings over 30 years of automotive electronics and control systems expertise to his current position as part of Arvin Meritor's engineering management. As Engineering Director in the Advanced Engineering group at ArvinMeritor, he led the team that designed and built the electric drivetrain for North American's first Class 4 electric pick up and delivery vehicle. He was also responsible for delivering the electro-mechanical systems to propel tomorrow's battery electric and hybrid vehicles for ArvinMeritor's Class 8 solutions. Mr. Kramer was elected Rockwell International's Engineer of the year for his ABS control systems developments. Mr. Kramer has over 60 patents in the areas of sensors, motors, navigation and antilock braking systems. Currently he holds a BS degree in Electrical Engineering and previously held engineering positions with Motorola and National Semiconductor.

**Ms. Heather Matthews**

*Logistics Engineer, JB Hunt Transport*  
Lowell, AR

Heather Matthews has been a Logistics Engineer for J.B. Hunt Transport since 2005. She creates engineered solutions for J.B. Hunt customers and the company's internal needs with a focus on sustainable transportation solutions. Heather has developed J.B. Hunt's transportation emissions calculator and works with J.B. Hunt's customers to identify emission reduction opportunities. She is a graduate of The University of Oklahoma with a Bachelor's of Science in Industrial Engineering.

**Mr. Michael Ogburn**

*Senior Consultant, Rocky Mountain Institute*  
Colorado – USA

Mr. Ogburn is a Senior Consultant with MOVE: RMI's Transportation Innovation Group, has worked in alternative energy and efficient transportation systems for nine years. While employed as a product development engineer with Ford Motor Company, he worked on the hybrid-electric *Escape* SUV and on the team of Fuel Cell System Engineers, which created Ford's hydrogen powered *Focus FCV*. His experience also includes Ballard, Ford's Atlanta Assembly Plant, Cummins Diesel, and GE's aircraft engine division. Mr. Ogburn received two degrees from Virginia Tech: a BSME and an MSME with specialization in hydrogen fuel cell systems for transportation. For three years at Virginia Tech, he led a team of more than 50 engineering students who designed, developed, and drove the world's first fuel cell hybrid five-passenger sedan not built by a major auto company. As part of his research on fuel cells, Mr. Ogburn worked collaboratively with the National Renewable Energy Laboratory and the U.S. Department of Energy to develop advanced hybrid vehicles and the "ADVISOR" vehicle modeling software. Mr. Ogburn grew up in a passive solar home in the Appalachian Mountains and is

an avid outdoor enthusiast. In an unusual mix of work interests and travel, he recently retrofitted a cruising sailboat with solar energy systems and sailed it to South America and back.

**Mr. Eddie Sturman**

*Co-founder, Sturman Digital Engine, Sturman Industries Inc.*  
Colorado, USA

Mr. Eddie Sturman is the technical lead at Sturman Industries, a Research & Development company he founded with his wife, Carol. He has a Masters degree in Mechanical Engineering from the University of Southern California, in addition to a degree in Business. Known for his intensely positive attitude and simple and innovative solutions for mechanical system challenges, he generates numerous inventions annually, and is named as inventor in more than 90 US patents in the areas of hydraulics, magnetics and efficient mechanical system design. While working with the Apollo Space program in the 1960's, Eddie's innovative, energy-efficient valves were used to propel the powerful Apollo rockets to the moon. In 2004, Eddie was honored by the United States Space Foundation for applying this dramatic space technology "to benefit planet Earth" in the form of a new series of advanced digital valves used for engine controls. His life's ambition and career objective has always been to use his technical expertise to innovate fundamental technology and product designs that can be used to improve the world. Eddie's goal is to provide a practical way to improve fuel economy and eliminate poisonous emissions through the use of his technology and improved system designs without exotic and potentially unhealthy, unsafe and expensive after-treatment alternatives.

**Dr. Jud W. Virden, Jr.**

*Energy Sector Manager, Energy and Environment Directorate of Pacific Northwest National Laboratory*  
Richland WA, USA

Dr. Jud Virden has been at Pacific Northwest National Laboratory (PNNL) since 1991 and was recently named the Energy Sector Manager for the Energy and Environment Directorate. The energy sector includes more than \$120 million of advanced energy research in technology areas for clients that include DOE's offices of Energy Efficiency and Renewable Energy, Fossil Energy, Nuclear Energy and Electricity Delivery and Energy Reliability, as well as industry. Until Oct. 1, 2007, Dr. Virden was Deputy Associate Laboratory Director for the Energy Science and Technology Directorate and Director of Energy Programs Business Development. Prior to his most recent roles at PNNL, Dr. Virden was responsible for the Laboratory's transportation programs. From 1999 to 2002, he was responsible for growing and developing government-sponsored and private research in the areas of advanced lightweight metal forming, fuel reformation, sensor development and advanced exhaust after-treatment devices. Dr. Virden also served a two-year assignment in Flint, Michigan as a PNNL employee working with General Motors, Ford and Chrysler and the United States Council of Automotive Research. In this assignment, he was responsible for initiating and developing multiple government/industry projects focused on advanced technology development. Dr. Virden served as co-chair for the 21st Century Truck Partnership National Laboratory Council, which is responsible for developing long-range technology goals for more efficient heavy vehicles. He holds a PhD in Chemical Engineering (1991) from the University of Washington and is a current Board Member for the American Council for an Energy-Efficiency Economy.

**Session 4**

**Mr. Don Anair**

*Senior Analyst, Clean Vehicles Program, Union of Concerned Scientists (UCS)*  
San Francisco, CA

Mr. Anair is an analyst in the California office of the UCS Clean Vehicles Program working on state

and national transportation, air quality and global warming policy. As part of his work on heavy-duty vehicle issues, Don analyzes the impact of diesel pollution on public health and air quality. He is the author of two California-focused reports, “Sick of Soot” and “Digging Up Trouble”, which focus on the impacts and solutions to reduce diesel emissions. He is also an advocate for groundbreaking diesel cleanup and greenhouse gas efforts in the state and around the country, including regulations, incentive programs, and legislation. Before Don came to UCS, he worked as a system design engineer for Applied Signal Technology where he received a patent for a new satellite communications product. Don holds a bachelor's and master's degrees in electrical engineering from Cornell University. As a member of Cornell's Formula Society of Automotive Engineers vehicle team, he helped design and manufacture an award winning alternative fuel race car.

**Mr. Tom Cackette**

*Chief Deputy Executive Officer, California Air Resources Board (ARB)*  
Sacramento, CA

With the Air Resources Board since 1982, Mr. Cackette serves as the Chief Deputy Director of the Staff of the ARB. He manages all aspects of the Board’s motor vehicle emission control program, which develops regulations and other programs to reduce vehicle emissions. He also manages the Board’s Monitoring and Laboratory Division, which performs ambient air quality monitoring and develops test methods. Overall 400 professional and support staff are dedicated to these programs, which are contributing to a steady decline in air pollution in California’s major urban areas. Involved in many aspects of air pollution control since 1974, Tom has also served as a Legislative lobbyist for the ARB, and worked for eight years for the US Environmental Protection Agency Motor Vehicle Emission Laboratory in a variety of technical, management and policy positions. Before that he was involved in rocket engine production and test and flight performance analysis at Rocketdyne in Los Angeles, where he gained first hand knowledge of living in the smoggiest city in the US. Tom has a Masters of Science degree in Engineering and a Bachelor of Science in Aeronautics and Astronautics. He has published papers for the Society of Automotive Engineers and Air and Waste Management Association, and is a frequent speaker on air quality issues.

**Mr. Mitch Greenberg**

*Manager, Smartway Transport Program, US Environmental Protection Agency*  
Washington, DC

\*Biography in Keynote section above.

**Mr. Anthony Grezler**

*Vice President of Engineering, Turbocompounding Engine, Volvo Powertrain North America*  
City State

\*Biography in Session 3 above.

**Ms. Heather Matthews**

*Logistics Engineer, JB Hunt Transport*  
Lowell, AR

\*Biography in Session 3.

**Moderators**

**Ms. Coralie Cooper**

*Transportation Program Manager, Northeast States for Coordinated Air Use Management (NESCAUM) / Northeast States Center for a Clean Air Future (NESCCAF)*

Boston, MA – USA

\*Biography in Session 1.

**Mr. Drew Kodjak**

*Executive Director, International Council on Clean Transportation*  
Washington DC – USA

Drew Kodjak is Executive Director of the ICCT. Prior to joining the ICCT, Mr. Kodjak served as Program Director for the National Commission on Energy Policy (NCEP), a bipartisan 16-member Commission of US energy experts that released a highly influential report, Ending the Energy Stalemate, in December 2004. Mr. Kodjak has also served as Attorney-Advisor to the U.S. Environmental Protection Agency’s Office of Transportation and Air Quality in Ann Arbor, MI. While at EPA, Mr. Kodjak contributed to regulatory development and drafting efforts for several key rulemakings including adoption of new emission controls on heavy-duty diesel trucks, mobile source air toxics and recreational vehicles. Mr. Kodjak is a graduate of New York University and Boston University Law School where he graduated with honors in 1991. Mr. Kodjak is a member of the Minnesota, New Jersey, and District of Columbia Court of Appeals Bar Associations.