The New Science & Economics of Climate Change



Tenth International Conference on Climate Change

June 11-12, 2015
Washington Court Hotel
Washington, DC

Welcome to the Tenth International Conference on Climate Change!

Much has changed in the global warming discussion since The Heartland Institute hosted the First International Conference on Climate Change in 2008. Global



JOSEPH L. BAST

temperature hasn't increased in 18 years. Extreme weather events like hurricanes, tornadoes, and wildfires have become less frequent and less severe. New oil and natural gas discoveries, coupled with technological advances in hydraulic fracturing and horizontal drilling, promise a new era of abundant, affordable energy. A Republican-controlled Congress has the authority and the stated desire to restore common sense to energy, environment, and climate policy.

Will public officials now incorporate sound science and economics into law and policy? Will they rein in the Environmental Protection

Agency and lift restrictions on energy production and use? To encourage Congress to do so, we are bringing climate experts to Washington, DC to make their case.

The Tenth International Conference on Climate Change features more than 40 scientists, economists, and public policy experts sharing the most up-to-date information on climate topics. Experts will address the observed benefits of carbon dioxide in the atmosphere, the economic impacts of carbon dioxide restrictions, lessons learned from climate policies in the 50 states and foreign nations, opportunities for a new era of energy abundance, EPA's health impact studies, global warming and military preparedness, and more.

Featured speakers include distinguished scientists and economists as well as U.S. Sen. James Inhofe (R-OK), U.S. Rep. Lamar Smith (R-TX), and U.S. Sen. Ted Cruz (R-TX) (invited).

Environmental activists and liberal advocacy groups say humans are creating a global warming crisis responsible for everything that is going wrong in the world. We say, show us the data! It is time for a fresh examination of climate-related issues and a fresh start. It's time to consider government policies that align with sound science and economics, not fear-mongering and ideology.

Thank you for joining us in Washington, DC for ICCC-10! It will be an unforgettable experience for you and your family and enable you to participate in the most important public policy debate of the century.

Sincerely,

President

The Heartland Institute

THURSDAY, JUNE 11

7:00 AM REGISTRATION OPENS

7:30 AM – 9:00 AM BREAKFAST KEYNOTE AND AWARD PRESENTATION

KEYNOTE: U.S. Sen. James Inhofe

AWARD: 2015 Political Leadership on Climate Change

Award to Sen. James Inhofe, presented by Hon. Jim DeMint,

president of The Heritage Foundation

9:00 AM – 9:30 AM BREAK WITH COFFEE IN EXHIBIT HALL

9:30 AM – 10:35 AM PANEL 1: CLIMATE SCIENCE – GRAND BALLROOM

MODERATOR: Jay Lehr, Ph.D.

SPEAKERS: Willie Soon, Ph.D.: Sun-Climate Connection David Legates, Ph.D.: Are Extreme Precipitation Events

Increasing in the United States?

Patrick Michaels, Ph.D.: Has EPA Scientifically Justified its

Climate Policies?

9:30 AM – 10:35 AM PANEL 2: CLIMATE SCIENCE AND ACCURATE DATA –

ATRIUM BALLROOM

MODERATOR: H. Sterling Burnett, Ph.D.

SPEAKERS: Anthony Watts: Government Gatekeepers and the

True Temperature Record

Roy Spencer, Ph.D.: New UAH Global Temperature Data Sets

J. Scott Armstrong, Ph.D.: Global Warming? It's a

Forecasting Problem

10:35 AM — 10:50 AM Break

10:50 AM – 12:00 NOON PANEL 3: ENERGY REALITIES – GRAND BALLROOM

MODERATOR: H. Sterling Burnett, Ph.D.

SPEAKERS: Mark Mills: Shale 2.0 Will End Green Dreams

Kathleen Hartnett White: The Elemental and

the Grand Sweep

Howard Hayden, Ph.D.: Real-world Pitfalls of Renewable

Energy Programs

10:50 AM - 12:00 NOON PANEL 4: ENERGY POLICY - ATRIUM BALLROOM

MODERATOR: S.T. Karnick

SPEAKERS: Marlo Lewis, Jr., Ph.D.: The Social Costs of Carbon

Dioxide

Jay Lehr, Ph.D.: The Future of Fossil Fuels

Isaac Orr: The Environmental and Economic Impacts of

Hydraulic Fracturing

12:00 NOON - 12:30 PM BREAK

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12:30 PM – 1:45 PM LUNCH KEYNOTE AND AWARD PRESENTATION

KEYNOTE: U.S. Rep. Lamar Smith (R-Texas)

AWARD: 2015 Courage in Defense of Science Award to David Legates, Ph.D., presented by Kathleen Hartnett White

of the Texas Public Policy Foundation

1:45 PM – 2:15 PM BREAK WITH COFFEE IN EXHIBIT HALL

2:15 PM – 3:30 PM PANEL 5: CLIMATE PROGRAM IMPACTS –

GRAND BALLROOM

MODERATOR: Hon. Bette Grande

SPEAKERS: G. Cornelis van Kooten, Ph.D.: The Economic

Consequences of Carbon Dioxide Regulation

Wolfgang Müller: How Climate Policies Have Impacted

Europe

Paul Driessen: How Climate Change Prevention Schemes

Impact Human Welfare

2:15 PM – 3:30 PM PANEL 6: ECONOMIC POLICY – ATRIUM BALLROOM

MODERATOR: James M. Taylor

SPEAKERS: Benjamin Zycher, Ph.D.: Some Inherent Fallacies in

the Arguments Favoring Carbon Taxes

Tiffany Roberts: Lessons from California's Climate Policies David Kreutzer, Ph.D.: Is a Carbon Tax a Good Policy Option?

3:30 PM - 3:45 PM BREAK

3:45 PM - 5:00 PM PANEL 7: CLIMATE POLICY AND NATIONAL SECURITY -

GRAND BALLROOM

MODERATOR: Jay Lehr, Ph.D.

SPEAKERS: Capt. Donald K. "Deke" Forbes (USN, ret.): Global

Warming Is Not a Threat Multiplier

Jay Lehr, Ph.D.: Climate Change and our Nuclear Military James M. Taylor: Costly Energy Impairs Military Readiness

3:45 PM – 5:00 PM PANEL 8: HUMAN HEALTH AND WELFARE –

ATRIUM BALLROOM

MODERATOR: John Dale Dunn, M.D.

SPEAKERS: James Enstrom, Ph.D.: EPA's Clean Power Plan and

PM2.5-related Co-benefits

S. Stanley Young, Ph.D.: Are EPA's Human Health Claims

Scientifically Supported?

Charles Battig, M.D.: EPA: Misdiagnosing Air Quality

5:00 PM - 5:30 PM BREAK

THURSDAY, JUNE 11

5:30 PM — 6:30 PM RECEPTION

6:30 PM – 8:30 PM DINNER KEYNOTE AND AWARD PRESENTATION

кеумоте: William Happer, Ph.D.

AWARD: Frederick Seitz Memorial Award to William Happer, Ph.D., presented by S. Fred Singer, Ph.D. of the Science &

Environmental Policy Project

FRIDAY, JUNE 12

7:00 AM REGISTRATION OPENS

7:30 AM – 9:00 AM BREAKFAST KEYNOTE AND AWARD PRESENTATION

KEYNOTE: Mark Steyn

AWARD: 2015 Excellence in Climate Science Communication Award to Anthony Watts, presented by Tom Harris of the

International Climate Science Coalition

9:00 AM – 9:30 AM BREAK WITH COFFEE IN EXHIBIT HALL

9:30 AM – 10:35 AM PANEL 9: CLIMATE CHANGE RECONSIDERED II: HUMAN

WELFARE, ENERGY, AND POLICIES -

GRAND BALLROOM

MODERATOR: Jay Lehr, Ph.D.

SPEAKERS: S. Fred Singer, Ph.D.: NIPCC: Saving Humanity

from Catastrophic Global Cooling

Craig D. Idso, Ph.D.: Climate Change, Fossil Fuels, and

Human Welfare

Christopher Monckton: Kicking the Poor in the Teeth: The

Cruel Cost of Needless Mitigation

Robert M. Carter, Ph.D.: The Counter-Consensus:

Adaptation Versus Mitigation

9:30 AM – 10:35 AM PANEL 10: CLIMATE POLICY IMPACTS –

ATRIUM BALLROOM

MODERATOR: Hon. Bette Grande

SPEAKERS: State Sen. Carlyle Begay (D-Arizona): The Impact

of Coal Restrictions on the Navajo Nation

Alan Moran, Ph.D.: Global Cost of Emission Restraints and

Challenges Posed by Renewable Power

Amanda Maxham, Ph.D.: Policy for People, Not the Planet

10:35 AM — 10:50 AM BREAK

FRIDAY, JUNE 12

10:50 AM – 12:00 NOON PANEL 11: ATTACKS ON SCIENTISTS AND THE

CORRUPTION OF SCIENCE – GRAND BALLROOM

MODERATOR: James M. Taylor

SPEAKERS: Robert M. Carter, Ph.D.: Rescuing Climate Policy

from Corruption

William M. Briggs, Ph.D.: The Need to Believe in the

'Solution' to Global Warming

Timothy Ball, Ph.D.: Corruption of Climate Science Christopher Monckton: Defending Climate Heroes,

Prosecuting Climate Fraudsters

10:50 AM – 12:00 NOON PANEL 12: EFFECTIVE CLIMATE SCIENCE

COMMUNICATION – ATRIUM BALLROOM

MODERATOR: Jim Lakely

SPEAKERS: Tom Harris: Effective Media Communication for

Climate Realists

John Coleman: The Media Loves Big Al

Michael Bastasch: Deniers, Alarmists, and Skeptics – How to

Decipher the Climate Talking Points

12:00 NOON - 12:30 PM BREAK

12:30 PM – 1:45 PM LUNCH KEYNOTE AND AWARD PRESENTATION

KEYNOTE: U.S. Sen. Ted Cruz (invited)

AWARD: 2015 Lifetime Achievement Award to Robert M. Carter, Ph.D., president by Joseph Bast of

The Heartland Institute

1:45 PM – 2:15 PM BREAK WITH COFFEE IN THE EXHIBIT HALL

2:15 PM – 3:30 PM PANEL 13: THE RIGHT CLIMATE STUFF –

GRAND BALLROOM

MODERATOR: H. Leighton Steward

SPEAKERS: Walter Cunningham: *Reality vs. Alarmism* Thomas Wysmuller: *Measuring the Measurements*

Hal Doiron, Ph.D.: A Simple Climate Model Validated With

165 Years of Data

2:15 PM – 3:30 PM PANEL 14: ACTION ITEMS FOR POLICYMAKERS –

ATRIUM BALLROOM

MODERATOR: S.T. Karnick

SPEAKERS: Marc Morano: Can Congress, EPA, or the UN Control the Climate Through Regulations and Treaties? Bette Grande: Federal Regulations – State vs. Federal

Legislation Responsibility and Options Myron Ebell: The Long Slog to Victory

3:30 PM – 5:00 PM CLOSING RECEPTION IN GRAND BALLROOM



J. Scott Armstrong, Ph.D.
J. Scott Armstrong, Ph.D.,
a professor at the Wharton
School, University of
Pennsylvania, is a founder of

the Journal of Forecasting, International Journal of Forecasting, and International Symposium on Forecasting. He is the creator of forecastingprinciples.com and editor of Principles of Forecasting (Kluwer 2001), an evidence-based summary of knowledge on forecasting. In 1996, he was selected as one of the first six Honorary Fellows by the International Institute of Forecasters. He has been doing research on forecasting for nearly half a century.



Timothy Ball, Ph.D.
Timothy Ball, Ph.D., is an environmental consultant and former climatology professor at the University of Winnipeg,

Manitoba, Canada. His comprehensive background in the field includes a focus on the reconstruction of past climates and the impact of climate change on human history and the human condition. He is a researcher/author of scientific papers on a wide range of environmental issues and is the author of *The Deliberate Corruption of Climate Science* (2014).



Michael Bastasch

Michael Bastasch is a senior reporter with The Daily Caller News Foundation, a DC-based news organization specializing

in policy reporting and investigative journalism. Bastasch has been at the forefront of energy and environmental coverage, exposing government abuse and holding officials accountable for their actions. His work has been featured on Fox News and Yahoo News.



Charles Battig, M.D.
Dr. Charles Battig is a retired physician with a postgraduate degree in electrical engineering. In the

1960s he served as principal scientist in bio-medical monitoring systems at North American Aviation Los Angeles in support of the Apollo Moon Mission. He has held the rank of senior surgeon/commander in the U.S. Public Health Service at the National Institutes of Health and teaching appointments in anesthesiology at UCLA and Mt. Sinai, New York. He entered the private practice of anesthesiology until retirement and then began to provide an alternate voice on climate change issues.



State Sen. Carlyle W. Begay Arizona state Sen. Carlyle W. Begay (D-Ganado) was born on the Navajo Nation and is Tó'tsohnii (Big Water), born for

Kinyaa'áanii (Towering House) clans. His maternal and paternal grandparents are Tl'izi lani (Many Goats clan). Begay is a lifetime resident of Arizona and grew up on the Navajo Nation near Black Mesa. As a state senator, he gives a voice to the Native American community and his other constituents. He serves on the Senate education, water and energy, transportation, and financial institutions committees and is co-chairman of the Native American Caucus.



William M. Briggs, Ph.D. William M. Briggs, Ph.D., is a statistical consultant whose research interests include prediction and

forecast accuracy and usefulness; skill and cognitive biases in prediction; practical decision analysis; graphical data display; climate variability; and the philosophy of statistics and probability. He is a consultant to New York Methodist Hospital, where he teaches a course to emergency medicine and surgical residents in basic probability and statistics

and consults on departmental research projects. He has taught in the Department of Mathematics at Central Michigan University, at Weill Medical College of Cornell University, and at Cornell University.



H. Sterling Burnett, Ph.D. H. Sterling Burnett, Ph.D. is research fellow for The Heartland Institute and managing editor of

Environment & Climate News, a monthly publication sent to every national and state elected official in the U.S. He previously worked at the National Center for Policy Analysis for 18 years, most recently as a senior fellow in charge of NCPA's environmental policy program. He has held various positions in professional and public policy organizations, including serving as a member of the Environment and Natural Resources Task Force in the Texas Comptroller's e-Texas commission. He is a current director and past president of the Dallas Woods and Water Conservation Club; a senior fellow at the Texas Public Policy Foundation; an academic advisor for Collegians for a Constructive Tomorrow; and an advisor for the Energy, Natural Resources and Agricultural Task Force at the American Legislative Exchange Council (ALEC).



Robert M. Carter, Ph.D. Robert M. Carter, Ph.D., is a palaeontologist, stratigrapher, marine geologist, and environmental scientist

with more than 30 years professional experience. He holds degrees from the University of Otago (New Zealand) and the University of Cambridge (England). He has held tenured academic staff positions at the University of Otago (Dunedin) and James Cook University (Townsville), where he was professor and Head of the School of Earth Sciences between 1981 and 1999. He is a former director

of the Australian Office for the Ocean Drilling Program, the premier research program for environmental and earth sciences. He has served on many national and international research committees, including the Australian Research Council. He is a former chairman of the Marine Science and Technologies Award Committee and the National Committee on Earth Sciences.



John Coleman

John Coleman founded The Weather Channel and was the original weathercaster on ABC's Good Morning America

with David Hartman and Joan Lunden. He earned a bachelor's degree in journalism in 1957 from the University of Illinois, and after a decade of self-study and correspondence classwork obtained the American Meteorological Society's full Professional Meteorologist membership. He was honored by the AMS as Broadcast Meteorologist of the Year. He later allowed his AMS membership to expire in protest of the AMS becoming more political than scientific. He worked in Champaign, Chicago, and Peoria, Illinois, in Omaha, Nebraska, and in Milwaukee, Wisconsin. After starting The Weather Channel he moved to New York City and then for the past 20 years was weatherman for KUSI in San Diego, California. After 61 years of being on TV, he decided "enough is enough" and retired in April 2014.



Walter Cunningham

Walter Cunningham is best known as pilot of Apollo 7, the first manned flight test of the Apollo Program to

land a man on the Moon. He is a retired Marine Corps fighter pilot with the rank of colonel and 4,500 hours pilot time. He is a successful businessman, entrepreneur, venture capitalist, lecturer, author, and host of a radio talk show. He is a member of the Astronaut Hall of Fame. His writings and involvement with energy and the environment date back to 1970, when he was one of three founders of The Earth Awareness Foundation. From 2000 to 2005, he was a member of the advisory board for the National Renewable Energy Laboratory.



Hal Doiron, Ph.D.

Hal Doiron, Ph.D., is the retired vice president for engineering of InDyne, Inc. As a young physicist, he

joined NASA-Houston in 1963 and developed the Apollo Lunar Module landing dynamics software used to guide landing gear design for toppling stability and energy absorption performance, to develop landing techniques, and to support landing site selection. He performed docking dynamics studies for the Skylab Program and led the Space Shuttle team that successfully eliminated unstable vibration coupling of the shuttle structural dynamics and rocket engine thrust oscillations. After his 16-year NASA career, Doiron spent nine years at Reed Tool Co. and McDonnell Douglas Space Systems. In retirement, Doiron is a consultant to NASA and commercial rocket developers.



Paul Driessen

Paul Driessen is a senior policy advisor with the Committee For A Constructive Tomorrow and Center for the Defense

of Free Enterprise, nonprofit public policy institutes that focus on energy, the environment, economic development, and international affairs. He is coauthor of Cracking Big Green, author of Green Power, Black Death (Merril Press, 2010), and coauthor of Energy Keepers, Energy Killers (Merril Press, 2008). During a 25-year career that included staff tenures with the United States Senate, Department of the Interior, and an energy trade association, he has spoken and written frequently on energy and environmental policy, global climate change, corporate social responsibility, and other topics. Driessen received his BA in geology and field ecology from Lawrence University and JD from the University of Denver College of Law.



John Dale Dunn, M.D., J.D. John Dale Dunn, M.D., J.D.,

is an emergency physician in Brownwood, Texas. He is board-certified in emergency

medicine and legal medicine and has been an inactive attorney for 35 years. He has conducted research, scholarship, and advocacy on environmental science and policy issues for 25 years. His areas of professional and scholarly interest include human toxicology and epidemiology, scientific legal evidentiary issues, ethics, and research methodology. Dunn has made presentations at several International Conferences on Climate Change, is a contributor to Heartland publications, and actively blogs at JunkScience.com.



Myron Ebell

Myron Ebell is director of energy and global warming policy at the Competitive Enterprise Institute. He chairs

the Cooler Heads Coalition, representing more than two dozen nonprofit groups in the U.S. and abroad that question global warming alarmism and oppose energy rationing policies. He has testified before six U.S. House and Senate committees and has debated scores of government officials and environmental advocacy groups on radio and in person. In its May 22, 2004 special "Issues and Answers" issue, *National Journal* profiled Ebell as one of 10 people who would lead the global warming debate during the next presidential administration.



James E. Enstrom, Ph.D. James E. Enstrom, Ph.D. is president of the Scientific Integrity Institute, an organization he founded

in 2005. In December of that year he published a major paper on fine particulate matter and mortality in California, and since then he has conclusively documented that fine particulate matter does not cause premature death in California. After serving 36 years as research professor/ researcher at the UCLA School of Public Health, he was wrongfully terminated because of his views. In February 2015 his wrongful termination was reversed and he retains rights as a retired UCLA faculty member. He has been a Fellow of the American College of Epidemiology since 1981. He has a B.S. in physics from Harvey Mudd College, a Ph.D. in elementary particle physics at Stanford University, and an M.P.H. and postdoctoral certificate from the UCLA School of Public Health.



Capt. Donald K.
"Deke" Forbes
Captain Deke Forbes served in the United States Navy continually from 1944 to

1977. As an enlisted man during World War II, he won an appointment to the U.S. Naval Academy in 1946, graduating in the top 7 percent of his class in 1950. Following his graduation from the Naval Academy, Forbes received aviation pilot training, including revolutionary jet training. In between sea-based flying assignments, he served as a project manager and was assistant program manager for the introduction of two aircraft to the Navy. He graduated from the Nuclear Weapon School at Sandia Base, New Mexico, earned a post-graduate degree in aeronautical engineering from the Naval Postgraduate School, and subsequently earned an aero engineering degree from the University of Michigan. He is also a graduate of the Naval War College and the Industrial College of the Armed Forces. After his retirement from the Navy, Forbes worked for Booz Allen as a program manager.



Hon. Bette Grande
Bette Grande is a research
fellow for energy and pension

fellow for energy and pension issues at The Heartland Institute. She served as a North

Dakota state representative from 1996 to 2014. As a lawmaker, she served as a member of the House Appropriations Committee and the Education and Environment Division. Grande also has served as chair of the energy division of the American Legislative Exchange Council's Energy, Environment and Agriculture Task Force, energy committee member of the Council of State Governments, and member of the National Conference of State Legislatures.



William Happer, Ph.D.
William Happer, Ph.D., is the
Cyrus Fogg Brackett Professor of
Physics at Princeton University

and a long-term member of the

JASON advisory group, where he pioneered the development of adaptive optics. He is also chairman of the George C. Marshall Institute. He was a full professor and director of the Columbia Radiation Laboratory at Columbia University prior to joining Princeton in 1980. From 1991-1993 he was director of the United States Department of Energy Office of Science, where he was director of its research budget of \$3 billion. In 1993, he returned to his position at Princeton, where he became chair of the University Research Board in 1995. He studied physics at the University of North Carolina, graduating in 1960, and earned his doctorate at Princeton in 1964.



Tom Harris

Tom Harris is executive director of the International Climate Science Coalition. He received the Excellence in Climate

Science Communications Award in 2014 from The Heartland Institute. For the past 15 years he has been working with independent scientists and engineers to promote a sensible approach to energy and environmental issues, climate change in particular. He is regularly published in newspapers across the world and interviewed on radio and TV. Until 2011, he taught 1,500 students in a second-year course titled "Climate Change, an Earth Sciences Perspective" at Carleton University in Ottawa, Canada. He has bachelor's and master's degrees in mechanical engineering.



Kathleen Hartnett White Kathleen Hartnett White is

distinguished senior fellow and director of the Armstrong Center for Energy & the

Environment at the Texas Public Policy

Foundation. She served a six-year term as chairman and commissioner of the Texas Commission on Environmental Quality, the second largest environmental regulatory agency in the world after the U.S. Environmental Protection Agency. She served on the Texas Water Development Board, Texas Economic Development Commission, Environmental Flows Study Commission, and Lower Colorado River Authority. She serves on the editorial board of the Journal of Regulatory Science, the Texas Emission Reduction Advisory Board, and Texas Water Foundation. She received her bachelor's and master's degrees from Stanford University.



Howard Hayden, Ph.D.

Howard Hayden, Ph.D., professor of physics emeritus in the Physics Department of the University of Connecticut,

is editor of The Energy Advocate, a monthly newsletter promoting energy and technology. His research interests include ionic and atomic collisions, charge transfer, ionization, energy loss, energylevel crossings, ion-surface collisions, ion implantation, relativity considerations, and energy for society (fossil fuels, nuclear, hydro, wind, biomass, photovoltaics, solar heating). He is the author of, among other publications, The Solar Fraud: Why Solar Energy Won't Run the World (2002, 2d edition 2005), A Primer on CO2 and Climate (2007), A Primer on Renewable Energy (2009), and Bass Ackwards: How Climate Alarmists Confuse Cause with Effect (2011).



Craig D. Idso, Ph.D.

Craig D. Idso, Ph.D., is founder and former president of the Center for the Study of Carbon Dioxide and Global

Change and currently serves as chairman of its board of directors. Idso is the coauthor, with Dr. Robert M. Carter and Dr. S.

Fred Singer, of four volumes in the Climate Change Reconsidered series, a comprehensive assessment of climate science produced by the Nongovernmental International Panel on Climate Change (NIPCC) and published by The Heartland Institute. Idso's research has appeared many times in peer-reviewed journals, including Geophysical Research Letters, Energy & Environment, Atmospheric Environment, Technology, The Quarterly Review of Biology, Journal of Climate, Environmental and Experimental Botany, and Physical Geography.



Hon. James Inhofe
U.S. Senator Jim Inhofe
(R-Oklahoma) is chairman of
the U.S. Senate Environment
and Public Works Committee

and senior member of the U.S. Senate Armed Services Committee. An avid pilot with more than 11,000 flight hours, Inhofe became the only member of Congress to fly an airplane around the world when he recreated Wiley Post's legendary trip around the globe. The conservative publication, Human Events, recently editorializing on the "Top 10 Most Outstanding Conservative Senators," ranked Inhofe number one, saying he is an "unabashed conservative" and "unafraid to speak his mind." In 2013, National Journal magazine ranked Inhofe among the top five most conservative members of the Senate.



S.T. Karnick is director of research for The Heartland Institute. Before joining

Heartland he served as director

of publications for the Hudson Institute, where he was co-founder and editor in chief of the organization's quarterly magazine, *American Outlook*. Karnick has written several hundred articles for publications and websites such as *The Weekly Standard*, *The American*

S.T. Karnick

Spectator, National Review, New York Post, Washington Examiner, National Interest, Pajamas Media, and many others, as well as for radio and television. He also serves as editor of *The American* Culture, which provides news and analysis about cultural, social, and political trends.



David Kreutzer, Ph.D.
David Kreutzer, Ph.D., is
senior policy analyst in energy
economics and climate change
at The Heritage Foundation's

Center for Data Analysis. He studies how energy and climate change legislation will affect economic activity at the national, local, and industry levels. Kreutzer taught economics for 23 years at James Madison University in Harrisonburg, Virginia, where he also served as director of the International Business Program. He was a visiting economist at the U.S. Food and Drug Administration in 1994 and a visiting economics instructor at Ohio University in the early 1980s.



Jim Lakely
Jim Lakely is director of
communications at The
Heartland Institute and
editor-in-chief of Heartland's

blog, Somewhat Reasonable. Prior to joining Heartland in 2008, Lakely spent 16 years in daily-deadline journalism. A former White House correspondent for The Washington Times, Lakely covered Capitol Hill and the re-election campaign of George W. Bush and his fifth year as president. He has appeared on C-SPAN, the Fox News Channel, MSNBC, CNN, and several local television news programs to discuss politics and policy. He's been an editorial writer and columnist for the Tribune-Review in Pittsburgh, Pennsylvania; The Free Lance-Star in Fredericksburg, Virginia; and The Press-Enterprise in Riverside, California.



David Legates, Ph.D. David Legates, Ph.D., is professor of climatology at the University of Delaware College of Earth, Ocean,

& Environment, where he specializes in hydroclimatology, precipitation and climate change, and computational methods. He is the former Delaware state climatologist. He has earned certified consulting meteorologist status from the American Meteorological Society and was awarded the Boeing Autometric Award for best paper in image analysis and interpretation. He has published more than 125 articles in refereed journals, conference proceedings, and monograph series and has made more than 250 professional presentations.



Jay H. Lehr, Ph.D. Jay H. Lehr, Ph.D., is senior fellow and science director of The Heartland Institute. He is an internationally renowned

speaker, scientist, and author who has testified before Congress on more than three dozen occasions on environmental issues and consulted with nearly every agency of the federal government and with many foreign countries. Lehr is a leading authority on groundwater hydrology. After graduating from Princeton University at the age of 20 with a degree in geological engineering, he went on to receive the nation's first Ph.D. in groundwater hydrology from the University of Arizona. He is the author of more than 400 magazine and journal articles and 12 books.



Marlo Lewis Jr., Ph.D.
Marlo Lewis, Jr., Ph.D.,
is a senior fellow at the
Competitive Enterprise
Institute (CEI), where he writes

on global warming, energy policy, and other public policy issues. Prior to joining CEI in April 2002, he served as director of external relations at the Reason Foundation in Los Angeles, California. During the 106th Congress, Lewis served as staff director of the House Government Reform Subcommittee on National Economic Growth, Natural Resources, and Regulatory Affairs. His interests include the science, economics, and politics of global warming policy; the precautionary principle; environmentalism and religion; and the moral basis of free enterprise.



Amanda Maxham, Ph.D. Amanda Maxham, Ph.D., is a research associate at the Ayn Rand Institute. She writes, speaks, and gives

interviews on topics in science and environmentalism, including climate change and energy. She holds a Ph.D. in physics from the University of Nevada, Las Vegas (UNLV), and her scientific work on gamma-ray burst astronomy has appeared in international science journals such as The Astrophysical Journal and The Monthly Notices of the Royal Astronomical Society. She was recently an adjunct professor in the Department of Physics and Astronomy at UNLV, where she founded and directed the university's high-altitude weather balloon research program. Prior to joining the Ayn Rand Institute, she was a visiting assistant professor of physics and astronomy at UNLV.



Patrick J. Michaels, Ph.D. Patrick J. Michaels, Ph.D., is director of the Center for the Study of Science at the Cato Institute. He is a past president

of the American Association of State Climatologists, was program chair for the Committee on Applied Climatology of the American Meteorological Society, was a research professor of environmental sciences at University of Virginia for 30 years, and was a contributing author and is a reviewer of the United Nations Intergovernmental Panel on Climate Change. His writing has been published in Climate Research, Climatic Change, Geophysical Research Letters, Journal of Climate, Nature, and Science, as well as in popular serials worldwide. He is the author or editor of six books on climate and its impact and he was an author of the climate "paper of the year" awarded by the Association of American Geographers in 2004.



Mark P. Mills Mark P. Mills is a senior fellow at the Manhattan Institute,

at the Manhattan Institute, CEO of the Digital Power Group, a tech-centric capital

advisory group, and Faculty Fellow at Northwestern University's McCormick School of Engineering and Applied Science. He is also a member of the advisory board of Notre Dame's Reilly Center for Science, Technology, and Values. He is coauthor of *The Bottomless* Well: The Twilight of Fuel, the Virtue of Waste, and Why We Will Never Run Out of Energy (Basic Books, 2005), which rose to #1 on Amazon's science and math rankings. He is a contributor to Forbes. com and his articles have been published in various popular outlets, including The Wall Street Journal and New York Times Magazine.



Lord Christopher Monckton Lord Christopher Monckton,

Lord Christopher Monckton, Third Viscount Monckton of Brenchley, is chief policy advisor to the Science and Public

Policy Institute (SPPI). He has held positions with the British press and in government, as a press officer at the Conservative Central Office and as Prime Minister Margaret Thatcher's policy advisor. Lord Monckton was Special Advisor to Margaret Thatcher as U.K. Prime Minister from 1982 to 1986. His work has been published in Science Bulletin (a publication of the Chinese Academy of Sciences), Energy and Environment, Coordinates, Journal of the Marine Navigation Industry, Science and Education, UK Quarterly Economic Bulletin, Physics and Society, and AIG News.



Alan Moran, Ph.D. Alan Moran, Ph.D., is past director (2014) of the Deregulation Unit at the

Institute of Public Affairs and

runs the Regulation Economics website. An economist, he was previously a senior Australian government official with responsibilities that included regulation review and energy policy. He is one of Australia's best known commentators on the energy industry and over the past 10 years has published more than 30 major papers and addresses covering specific aspects of the industry. In addition to editing a recent book, Climate Change, the Facts, he has authored four books, including three on environmental economics, and published dozens of articles and submissions on privatization, energy, and other economic policy matters.



Marc Morano

Marc Morano is publisher of ClimateDepot.com, a global warming and econews center founded in

2009. He previously served for three years as a senior advisor, speechwriter, and climate researcher for U.S. Senator James Inhofe (R-Oklahoma) and managed communication operations of the GOP side of the Senate Environment and Public Works Committee. Morano joined the committee as the majority communications director in June 2006 after a decade-and-a-half as a working journalist, documentary maker, radio talk show host, and national television correspondent. Morano served as the television reporter/producer for the nationally syndicated "Rush Limbaugh, the Television Show," during the show's four-year run (1992–1996). He has received awards for his coverage of the climate change debate from Accuracy in Media, Doctors for Disaster Preparedness, Townhall Magazine, and The Daily Caller.



Wolfgang Müller

Wolfgang Müller is general secretary of the European Institute for Climate and Energy (EIKE), Germany's

leading think tank for climate and energy policies. Previously he worked for the Friedrich Naumann Foundation in Germany and abroad as country representative in Zimbabwe and project director of the Economic Project in Southern Africa.



Isaac Orr

Isaac Orr is a research fellow at The Heartland Institute. He previously worked as a research analyst and writer

in the office of Wisconsin state Senator Frank Lasee, and prior to that interned with the Rancher's Cattleman Action Legal Fund. He graduated in 2010 with honors from the University of Wisconsin-Eau Claire with a bachelor's degree in political science with a minor in geology. He has written three *Policy Studies* on fracking and frac sand mining for The Heartland Institute and has been published in *USA Today*, *Houston Chronicle*, *Milwaukee Journal-Sentinel*, *Washington Times*, *The Hill*, *American Thinker*, and *Human Events*.



Tiffany Roberts

Tiffany Roberts has spent the past eight years advising California policymakers on energy and climate policy.

She started her career in energy policy at the local government level conducting economic analysis of local energy and climate policies. From 2009 to 2014, she worked at the California Legislative Analyst's Office, where she served as senior energy and climate policy analyst. She authored reports on traditional and alternative energy policies and California's cap-and-trade program, among others. She now serves as a policy consultant with the Senate Republican Caucus. She is co-founder and executive director of California Women in Energy.



S. Fred Singer, Ph.D.
S. Fred Singer, Ph.D., is an atmospheric and space physicist

and founder and president of the Science and Environmental

Policy Project. He was a distinguished research professor at George Mason University and is professor emeritus of environmental science at the University of Virginia. He is the author or coauthor of many books including four volumes in the Climate Change Reconsidered series. Singer participated in the first experiments using high-altitude research rockets, measuring the energy spectrum of primary cosmic rays and the distribution of stratospheric ozone; he published the first studies on subatomic particles trapped in Earth's magnetic field. He has held a wide range of science positions with the U.S. government, including first director of the National Weather Satellite Service.



Hon. Lamar Smith
Congressman Lamar
Smith represents the 21st
Congressional District of
Texas. He serves as chairman

of the Science, Space, and Technology Committee, which has jurisdiction over programs at NASA, the Department of Energy, Environmental Protection Agency, National Science Foundation, Federal Aviation Administration, and National Institute of Standards and Technology. Smith was ranked the most effective member of the House in the 112th Congress (2011–2012) in a study jointly conducted by the University of Virginia and Vanderbilt University. He also was named Policymaker of the Year by *Politico* for his work on patent reform legislation during that same Congress. A fifth generation Texan and native of San Antonio, Smith graduated from Yale University and Southern Methodist University School of Law.



Willie Soon, Ph.D.

Willie Soon, Ph.D., is an astrophysicist and geoscientist. He received the 2014 Courage in Defense of Science Award

from the George C. Marshall Institute. He is the receiving editor in the area of solar and stellar physics for the journal New Astronomy. He writes and lectures both professionally and publicly on important issues related to the sun, other stars, and Earth as well as general science topics in astronomy and physics. He is the author of The Maunder Minimum and the Variable Sun-Earth Connection. Soon was recognized with an award for detailed scholarship on biogeological and climatic change over the past 1,000 years by the Smithsonian Institution. In 2004, he was presented with the Petr Beckmann Award by Doctors for Disaster Preparedness for "courage and achievement in defense of scientific truth and freedom." The views expressed by Willie Soon are strictly his and do not reflect those of any institutions.



Roy Spencer, Ph.D.

Roy Spencer, Ph.D., was a senior scientist for climate studies at NASA's Marshall Space Flight Center, where he

and John Christy, Ph.D., received NASA's Exceptional Scientific Achievement Medal for their global temperature monitoring work with satellites. He is now a principal research scientist at the University of Alabama in Huntsville. Spencer's work with NASA continues as U.S. Science Team leader for the Advanced Microwave Scanning Radiometer flying on NASA's Agua satellite. His work on tracking the planet's temperature provided a tamperproof source of data against which to test predictions of man-made global warming. He has provided congressional testimony several times on the subject of global warming.



H. Leighton Steward
H. Leighton Steward is
chairman of the PlantsNeed
CO2 and CO2 Is Green
nonprofit corporations and

the Institute for the Study of Earth and Man at Southern Methodist University. He is a geologist, environmentalist, author, and former energy industry executive. He has written on the loss of the Mississippi River wetlands system, global climate change, and nutrition and health. He represented the energy industry on presidential missions to the former Soviet Union and Turkey and to Pakistan. He is on the boards or boards of visitors of the Southwest Research Institute. M.D. Anderson Cancer Center, EOG Resources, and the Buffalo Bill Historical Center. He has been presented with many environmental awards and was twice chairman of the Audubon Nature Institute and chairman of the National Wetlands Coalition for 10 years.



Mark Steyn

Mark Steyn is an international bestselling author, talk show guest, and writer for popular magazines and newspapers.

His recent books include After America. America Alone: The End Of The World As We Know It, and The [Un]documented Mark Steyn. He is a frequent guest host of America's top radio show, The Rush Limbaugh Program, as well as the toprated Fox News TV show Hannity. He appears each week on *The Hugh Hewitt* Radio Show. In Canada, he can be heard with Toronto's number one morning man on AM640's John Oakley Show. Over the years, Steyn's writing on politics, arts, and culture has been published in almost every major newspaper around the English-speaking world, including Britain's Daily Telegraph, Canada's National Post, Irish Times, Jerusalem Post, Wall Street Journal, and many more.



James M. Taylor
James M. Taylor is vice
president of external affairs
and senior fellow for
environment and energy

policy at The Heartland Institute. From 2001 to 2014, he served as managing editor of Environment & Climate News, a national monthly publication devoted to sound science and free-market environmentalism. He is a contributor at Forbes.com. He has presented energy and environment analysis on CNN, CNN Headline News, Fox News Channel, and Fox Business Channel and has been published in virtually every major newspaper in the country. He has been a featured presenter at conferences sponsored by the National Conference of State Legislatures, American Legislative Exchange Council, Council of State Governments, National Association of Counties, National Foundation of Women Legislators, and the European Institute for Climate and Energy.



G. Cornelis van Kooten, Ph.D.

G. Cornelis van Kooten, Ph.D., is professor of economics and Canada Research

Chair at the University of Victoria in Canada and a research fellow of the Agricultural Economics Institute in The Hague. Previously he was a professor of agricultural economics at the University of Saskatchewan and University of British Columbia. He has published more than 230 articles and nine books, including Climate Change, Climate Science and Economics (Springer, 2013). He has been a consultant to various governments, the United Nations, World Bank, International Fund for Animal Welfare, and World Wildlife Fund. He is a fellow of the Canadian Agricultural Economics Society and received its Publication of Enduring Quality Award in 2011.



Anthony Watts

Anthony Watt is founder and editor of WattsUpWithThat. com, the world's most viewed website on global warming

and climate change. He is a leading and most influential critic of the surface-based temperature record, exposing site location and technology problems that lead to a significant warming bias in data used by government agencies and environmental groups. A 25-year broadcast meteorology veteran, he got his start as on-air meteorologist for WLFI-TV in Lafayette, Indiana and at KHSL-TV in Chico, California. He is founder and CEO of IntelliWeather, a weather technology company that produces weather stations, weather data processing systems, and weather graphics creation and display.



Thomas Wysmuller

Thomas Wysmuller trained as a meteorologist at New York University and at the Royal Dutch Weather Bureau

in Amsterdam. He then worked for five years throughout NASA before, during, and after the Moon landings. He is routinely invited back to give science and meteorology lectures at NASA Field Centers. The polynomial regression mathematics, algorithms, or code Wysmuller personally produced after leaving NASA are being used by virtually every climate scientist on the planet, either embedded in their models or used in their analysis. He was highlighted in Horizons, the American Institute for Aeronautics and Astronautics' special issue for NASA's 50th anniversary. He lectures on the meteorology of climate across the globe and millions follow his accurate meteorological forecasts annually.



S. Stanley Young, Ph.D.

S. Stanley Young, Ph.D., is former assistant director for bioinformatics at the National Institute of Statistical

Sciences (NISS) in Research Triangle Park, North Carolina. NISS's mission is to identify, catalyze, and foster high impact, cross-disciplinary research involving the statistical sciences. He graduated from North Carolina State University and worked in the pharmaceutical industry on all phases of pre-clinical research, first at Eli Lilly and then at GlaxoSmithKline. He has authored or co-authored more than 60 papers and a widely cited book, Resampling-Based Multiple Testing. He is a fellow of the American Statistical Association and American Association for the Advancement of Science and an adjunct professor at North Carolina State University, the University of Waterloo, and the University of British Columbia, where he co-directs thesis work.



Benjamin Zycher, Ph.D.

Benjamin Zycher, Ph.D., is John G. Searle chair and resident scholar at the American Enterprise Institute, a senior

fellow at the Pacific Research Institute, and a member of the advisory board of the quarterly journal Regulation. He is a former associate in the Intelligence Community Associates program of the Office of Economic Research in the U.S. Department of State; a former senior fellow at the Manhattan Institute for Policy Research; a former senior economist at the RAND Corporation; a former member of the board of directors of the Western Economic Association International; a former vice president for research at the Milken Institute; founding editor of the quarterly public policy journal Jobs & Capital; and a former senior staff economist at the President's Council of Economic Advisers.

American Spectator www.spectator.org

The American Spectator provides conscientious citizens and decision makers in and outside of government with news and commentary on politics, economics, and culture from a conservative perspective via www. spectator.org, while training aspiring young writers for careers in journalism. All this, with a healthy dose of wit, has been transpiring since its founding in 1967. Contact: Daniel DeFonce, defonced@spectator.org

Australian Taxpayers' Alliance www.taxpayers.org.au

The Australian Taxpayers' Alliance is a unique grassroots advocacy and activist organization dedicated to standing up for hardworking Australian taxpayers against special-interest groups. We oppose the high taxes, wasteful spending, and crippling red tape that are hurting Australian families and businesses, and we provide a voice for everyone who opposes the big-government agenda. Contact: Tim Andrews, tandrews@taxpayers.org.au

Ayn Rand Institute www.aynrand.org

ARI offers a variety of educational experiences to promote Ayn Rand's philosophy and her principles of reason, rational self-interest, and laissez-faire capitalism. Our perspective on issues of the day is based on the principles of a free society: laissez-faire capitalism, its moral foundations, its life-promoting consequences, and the pro-reason culture required.

Contact: Lin Zinser, lzinser@aynrand.org

Carbon Sense Coalition www.carbon-sense.com

The Carbon Sense Coalition is a voluntary group of people concerned about the extent to which carbon is wrongly vilified in Western societies, particularly in government, in the media, and in business circles. We aim to restore balance and reason to the carbon debate, and to explain and defend the key role of carbon in production of most of our energy for heat, light, and transportation, and all of our food.

Contact: Viv Forbes, forbes@carbon-sense.com

Center for the Study of Carbon Dioxide and Global Change www.co2science.org

The Center for the Study of Carbon Dioxide and Global Change provides regular commentary and original research in the world-wide scientific quest to determine the climatic and biological consequences of the ongoing rise in the air's CO2 content, publishing material weekly in its CO2 Science magazine. The center also partners with The Heartland Institute and Science and Environmental Policy Project to produce the official reports of the Nongovernmental International Panel on Climate Change.

Contact: Craig Idso, cidso@co2science.org

The Colder Side of Global Warming www.colderside.com

The Colder Side of Global Warming® is a website answering questions about climate and exposing problems in describing its effects. Speaking engagement availability is highlighted on the home page, and CO2 and temperature disconnect as well as HadCRUT 3 vs. 4 differences (designed to mislead?) are highlighted. The media page is worth a comprehensive look!

Contact: Thomas Wysmuller,

tom@colderside.com

Committee For A Constructive Tomorrow www.cfact.org

Founded in 1985, CFACT strongly believes the power of the market combined with the applications of safe technologies could offer humanity practical solutions to many of the world's pressing concerns. With an impressive scientific advisory board, aggressive collegiate program, CFACT Europe, United Nations representation, Adopt-A-Village project, global social responsibility program, and "Just the Facts" national radio commentary, CFACT continues to offer positive solutions to today's global challenges.

Contact: Craig Rucker, crucker@cfact.org

Competitive Enterprise Institute www.cei.org

The Competitive Enterprise Institute is a non-profit public policy organization dedicated to advancing the principles of limited government, free enterprise, and individual liberty. Our mission is to promote both freedom and fairness by making good policy good politics. We make the uncompromising case for economic freedom because we believe it is essential for entrepreneurship, innovation, and prosperity to flourish.

Contact: Myron Ebell, mebell@cei.org

European Institute for Climate and Energy www.eike-klima-energie.eu

An association of scientists, engineers, journalists, and politicians founded in Berlin, Germany, in 2007, EIKE members share a conviction that the assertion of a "man-made climate change" is not justified as a science and therefore is a fraud. EIKE provides platforms for discussion and publication of scientific findings. It is funded by voluntary contributions from its members and donations. The registration as an association has been made at the district court of Jena.

Contact: Wolfgang Müller, wolfgang@iuf-berlin.org

The Heartland Institute www.heartland.org

The Heartland Institute is a 31-year-old national nonprofit research organization based in Chicago and dedicated to finding and promoting ideas that empower people. It publishes *Environment & Climate News*; the *Climate Change Reconsidered* series for the Nongovernmental International Panel on Climate Change; and scores of other publications on climate and environment issues as well as budget and tax issues, education reform, health care policy, and more. Contributions are tax-deductible under Section 501(c)(3) of the Internal Revenue Code.

Contact: Jim Lakely, jlakely@heartland.org

The Heritage Foundation www.heritage.org

The Heritage Foundation is a research and educational institution – a think tank – whose mission is to formulate and promote conservative public policies based on the principles of free enterprise, limited government, individual freedom, traditional American values, and a strong national defense.

Contact: Ryan Nichols, Ryan.Nichols@heritage.org

International Climate Science Coalition

www.climatescienceinternational.org

The International Climate Science Coalition is a non-partisan group of independent scientists, economists, and energy and policy experts who are working to promote better understanding of climate science and related policy worldwide. We aim to help create an environment in which a more rational, open discussion about climate issues emerges, thereby moving the debate away from implementation of costly and ineffectual "climate control" measures.

Contact: Tom Harris, tom.harris@climatescienceinternational.net

John Locke Foundation www.johnlocke.org

The John Locke Foundation was created in 1990 as an independent, nonprofit think tank that would work "for truth, for freedom, and for the future of North Carolina." The foundation is named for John Locke (1632–1704), an English philosopher whose writings inspired Thomas Jefferson and the other Founders. The John Locke Foundation is a 501(c)(3) research institute and is funded solely from voluntary contributions from individuals, corporations, and charitable foundations.

Contact: Roy Cordato, rcordato@johnlocke.org

Leadership Institute www.leadershipinstitute.org

The Leadership Institute provides training to conservatives in campaigns, fundraising, grassroots organizing, youth politics, and communications. Since 1979, more than 147,000 conservative activists, students, and leaders around the world have been trained. Graduates include members of Congress, state legislators, local officials, media personalities, and conservative organization leaders.

Contact: Carol Wehe, Carol@LeadershipInstitute.org

Media Research Center www.mrc.org

As the nation's premier media watchdog, the Media Research Center has been documenting, exposing, and neutralizing liberal media bias since 1987. The MRC's unwavering commitment to this single mission using empirical research and analysis has influenced how millions of Americans perceive so-called objective news reporting. Contributions to the MRC are tax-deductible.

Contact: Scooter Schaefer, sschaefer@mrc.org

National Association of Scholars www.nas.org

NAS is a network of scholars and citizens united by our commitment to academic freedom, disinterested scholarship, and excellence in American higher education. Membership in NAS is open to all who share our commitment to these broad principles. We publish a journal and have state and regional affiliates.

Contact: Rachelle Peterson, peterson@nas.org

Pacific Research Institute www.pacificresearch.org

The mission of the Pacific Research Institute (PRI) is to champion freedom, opportunity, and personal responsibility for all individuals by advancing freemarket policy solutions. Since its founding in 1979, PRI has remained steadfast to the vision of a free and civil society where individuals can achieve their full potential. Put simply, public policy is too important to be left just to the experts. Individuals are the real decision makers when it comes to their schools, health care, and environment.

Contact: Rowena Itchon, RItchon@pacificresearch.org

Reality News www.realitynewsmedia.com

Reality News attempts to provide everyday people relevant, tangible, and high-level information not being disseminated to them by more traditional news resources. The interest of Reality News readers originates with their desire to inform themselves on the most crucial current issues affecting our society and world. These readers are generally quite politically engaged or are becoming so, not necessarily by choice but certainly by necessity.

Contact: Steve Welcenbach, alchem1@earthlink.net

Science and Environmental Policy Project www.sepp.org

The Science and Environmental Policy Project (SEPP) is a non-profit, 501(c)(3) educational organization founded in 1990 by atmospheric physicist S. Fred Singer. Its mission is to educate politicians, the media, and the public on the importance of scientific rigor in establishing environmental policy and related policies. SEPP does not solicit financial support from industry groups, government entities, or NGOs.

Contact: S. Fred Singer singer@sepp.org

Texas Public Policy Foundation www.texaspolicy.com

The Texas Public Policy Foundation is a 501(c)(3) non-profit, non-partisan research institute. Its mission is to promote and defend liberty, personal responsibility, and free enterprise in Texas and the nation by educating and affecting policymakers and the Texas public policy debate with academically sound research and outreach.

Contact: Mike Joyce, mjoyce@texaspolicy.com

Virginia Scientists and Engineers for Energy and the Environment www.vaseee.org

Virginia Scientists and Engineers for Energy and the Environment (VA-Seee) is a coalition of like-minded professionals advocating public policies regarding energy and environment, based on verifiable science, not emotional appeal. Society benefits when impartial physical evidence and reason are guiding principles, not when they are ignored or replaced by dogma.

Contact: Ken Haapala, ken@haapala.com

Congratulations to Our, Award Minners

Many scientists, economists, and policy experts have worked for decades fighting the politicization and misinterpretation of climate science. They've taken risks, both to their personal safety and to their professional careers, simply by speaking truth to power. Many have made courageous decisions that have cost them the promotions and rewards they might otherwise have received from their peers.

The Climate Change Awards were started in 2014 as a way to recognize individuals of extraordinary ability and unflagging commitment to restoring sound science and common sense to the debate over global warming. These awards deliver long-overdue recognition and encouragement to their recipients.

The awards also serve to increase public awareness of the global warming realism movement and send a signal to the academy and other elite institutions saying if they won't recognize these genuine heroes, then the sponsors of these awards will. And finally, they encourage otherwise silent scientists, philanthropists, and civic and business leaders to speak up on behalf of sound science and common sense.

2014 Award Winners



Whistleblower Award Presented to Alan Carlin, Ph.D. Sponsored by Don't Tread on My Business Foundation



Outstanding
Spokesperson on Faith,
Science, and
Stewardship Award
Presented to
E. Calvin Beisner, Ph.D.
Sponsored by
The Heritage Foundation



Excellence in Climate
Science Communication
Award
Presented to
Tom Harris
Sponsored by
The Heartland Institute



Speaks Truth
To Power Award
Presented to
Patrick Moore, Ph.D.
Sponsored by
FarthFree Institute



Voice of Reason Award Presented to Arthur B. Robinson, Ph.D. Sponsored by The Heartland Institute



Lifetime Achievement in Climate Science Award Presented to S. Fred Singer, Ph.D. Sponsored by The Heartland Institute



Courage in Defense of Science Award Presented to Willie Soon, Ph.D. Sponsored by George C. Marshall Institute



Outstanding
Evangelical Climate
Scientist Award
Presented to
Roy Spencer, Ph.D.
Sponsored by
the Cornwall Alliance
for the Stewardship
of Creation



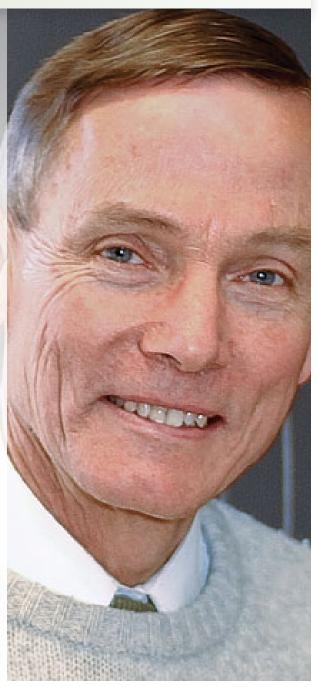
2014 Frederick Seitz Memorial Award Presented to Sherwood B. Idso, Ph.D. Sponsored by the Science and Environmental Policy Project

Congratulations! William Happer, Ph.D.

Winner of the Frederick Seitz Memorial Award Sponsored by the Science & Environmental Policy Project

William Happer, Ph.D., is a physicist who has specialized in the interaction of atoms and nuclei with radiation. He is the Cyrus Fogg Brackett professor of physics (emeritus) at Princeton University and a long-term member of the JASON advisory group, where he pioneered the development of adaptive optics and invented the sodium guide star to eliminate astronomical imaging blurring due to atmospheric turbulence. He was director of the Office of Energy Research at the U.S. Department of Energy from 1991 to 1993.

Happer has been an active and influential writer and speaker on the global warming issue. He is a fellow of the American Physical Society and American Association for the Advancement of Science, and he's a member of the National Academy of Sciences and American Philosophical Society. He received an Alfred P. Sloan fellowship in 1966, an Alexander von Humboldt award in 1976, the Herbert P. Broida Prize in 1997, the Davisson-Germer Prize, and the Thomas Alva Edison Patent Award in 2000



Congratulations! Sen. James Inhofes



Climate Change Award Sponsored by The Heritage

U.S. Sen. James Inhofe is well known in his home state of Oklahoma and in Washington, DC as one of the most conservative members of the United States Senate. Human Events recently ranked Inhofe #1 on its list of the "Top 10 Most Outstanding Conservative Senators." In 2013, National Journal ranked Inhofe among the top five most conservative members of the Senate.

Inhofe considers one of his unique qualifications for office to be the 30 years he's spent in the business community, where he grew tired of being over-regulated by the federal bureaucracy. He is a lifelong Oklahoman who grew up in Tulsa and graduated from the University of Tulsa with a degree in economics. A veteran of the U.S. Army, Inhofe was first elected to the Senate in 1994 and serves as chairman of the Senate Environment and Public Works Committee.

Congratulations! David Legates, Ph.D.

Winner of the Courage in Defense of Science Award Sponsored by the Texas Public Policy Foundation

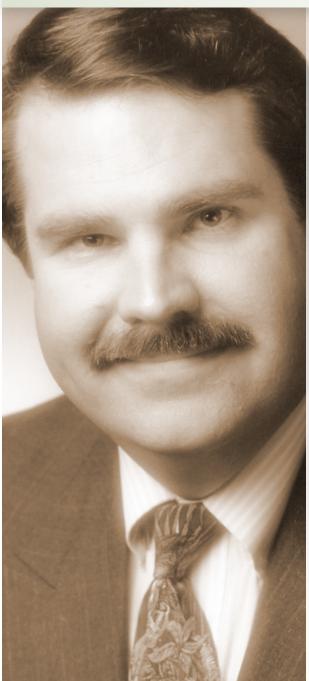
David Legates, Ph.D., is professor of climatology in the Department of Geography at the University of Delaware and an adjunct professor at the university's Physical Ocean Science and Engineering Program and in the Department of Applied Economics.

Legates co-developed methods to correct bias in gauge-measured precipitation data for wind and temperature effects, with direct applicability in climate change, hydrology, and environmental impact studies. Legates also developed a calibration method that validates NEXRAD radar precipitation data with gauge measurements to improve the accuracy of precipitation estimates.

Legates has earned certified consulting meteorologist status from the American Meteorological Society and in 1999 was awarded the Boeing Autometric Award for submitting the best paper in image analysis and interpretation. He has published more than 125 articles in refereed journals, conference proceedings, and monograph series and has made more than 250 professional presentations.



Congratulations! Anthony Watts



Winner of the Excellence in Climate Science Communication Award Sponsored by the International Climate Science Coalition

Anthony Watts is a 25-year broadcast meteorology veteran and currently chief meteorologist for KPAY-AM radio. He got his start as an on-air meteorologist for WLFI-TV in Lafayette, Indiana and at KHSL-TV in Chico, California.

In 1987, he founded ItWorks, which supplies broadcast graphics systems to hundreds of television and radio stations nationwide. Watts established the blog Watts Up With That? (WUWT) in 2006. In 2007, Watts founded SurfaceStations.org, a website devoted to photographing and documenting the quality of weather stations across the United States.

In 2008, WUWT won an Internet voting-based Wizbang Weblog Award for the "Best Science Blog." In 2011, 2012, and 2013, WUWT took first place in the Bloggies "Best Science Weblog" category, and in 2013, it won overall best blog. WUWT is by far the most viewed website on climate in the world, now approaching a quarter-billion views.

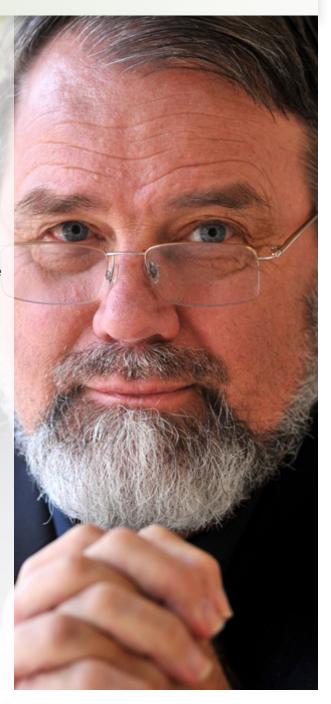
Congratulations! Robert M. Carter, Ph.D.

Winner of the Lifetime Achievement in Climate Science Award Sponsored by The Heartland Institute

Robert M. Carter, Ph.D. is a paleontologist, stratigrapher, and marine geologist with a 50-year record of university teaching and publishing international research on ancient environmental and climatic change topics.

Carter has acted as an expert witness on climate change before the U.S. Senate Environment and Public Works Committee; parliamentary select committees on emissions trading in Australia and New Zealand; and in a meeting in Parliament House, Stockholm, Sweden.

He was a primary science witness in the Hayes Windfarm Environment Court case in New Zealand and in the U.K. High Court case of *Dimmock v. H.M.'s Secretary of State for Education*, the 2007 judgement that identified nine major scientific errors in Al Gore's film *An Inconvenient Truth*. He is a lead author/editor of several volumes in NIPCC'S *Climate Change Reconsidered* series.



Save the Date!

Friday, October 2, 2015

The Heartland Institute's

Anniversary Benefit Dinner

KEYNOTE SPEAKER



Daniel HannanMember of the
European Parliament

LIBERTY PRIZE RECIPIENT



Donald Devine
American political scientist,
author, and former government
official

VENUE



The Cotillion 360 South Creekside Drive Palatine, Illinois For more information, advance table purchases, sponsorships, and ticket sales, please contact Gwendalyn Carver at gcarver@heartland.org or 312/377-4000

About The Heartland Institute

The Heartland Institute, founded in 1984, is a 31-year-old nonprofit, nonpartisan research organization based in Chicago. It is devoted to discovering, developing, and promoting free-market solutions to social and economic problems.

The Heartland Institute contacts more elected officials, more often, than any other think tank in the United States. According to a telephone survey of 497 randomly selected state elected officials conducted by Victory Enterprises in 2014, 74 percent say they read at least one Heartland publication "sometimes" or "often."

The nation's most influential people — including every state and national elected official — receive at least one Heartland publication every month. Heartland also manages multiple websites and operates PolicyBot™, an online clearinghouse for the work of some 350 think tanks and advocacy groups.

Approximately 300 academics and professional economists participate in Heartland's peer-review process, and nearly 200 elected officials serve on its Legislative Forum. Heartland's full-time staff of government relations professionals interacts daily with hundreds of elected officials across the country, and its public relations and media specialists help shape public opinion by writing and placing dozens of letters to the editor and opinion editorials each week.

Heartland has a full-time staff of 30 and a 2015 budget of \$7 million. It is supported by the voluntary contributions of approximately 5,300 supporters. For more information, please visit our Web site at www.heartland.org, call 312/377-4000, or write to The Heartland Institute, 3939 North Wilke Road, Arlington Heights, Illinois 60004.

FOR THE RECORD ...

The Heartland Institute often is the target of misinformation and even outright lies about its mission, funding and donors, and members and staff. For the record, The Heartland Institute is not a "front group" for the fossil fuel industry or any other interest groups: Oil, coal, and natural gas interests provide less than 5 percent of our annual budget. More than 5,000 donors, 200 academics and professional economists, and nearly 200 elected officials endorse and actively support The Heartland Institute. For more information, go to http://heartland.org/reply-to-critics.

