# “Nord Stream 2: Implications and Outcomes for US-German Relations and the NATO Alliance” Panel Discussion Bios

## **Dr. David R. Dorondo** (Western Carolina University)

**Dr. David R. Dorondo** earned the degree of B.A. with honors in history from Armstrong State College in 1980 and the M.A. in German and European diplomatic history from the University of South Carolina in 1984. From 1984 to 1987, he was a member of St. Antony’s College, Oxford and was admitted to the degree of D.Phil. from the University of Oxford in 1988. He earned a Fulbright Fellowship to attend the Otto-Friedrich-Universität Bamberg in the Federal Republic of Germany for the academic year 1985-1986, having already spent the year 1981-1982 at the same institution as a graduate exchange student. Since 1987, he has served as a member of the Department of History of Western Carolina University and teaches both graduate and undergraduate courses in modern European military and political history and the history of international relations. He is a member of US Strategic Command’s Deterrence and Assurance Academic Alliance and serves as a subject-matter expert for, and contributor to, the US Joint Staff J39 Strategic Multilayer Assessment (SMA). He has written or translated four books on modern German military and political history and has contributed to numerous professional journals, military encyclopedias, and periodicals.

## **Dr. Arnold Dupuy** (NATO Science and Technology Organization’s Systems Analysis and Studies (SAS)-163 and Science Applications International Corporation (SAIC))

**Dr. Arnold Dupuy** is a SAIC employee working as an analyst at the U.S. Air Force Warfighter Integration Capability (AFWIC). In his capacity at the Pentagon, Dr. Dupuy provides qualitative and quantitative analyses of operational energy risks to mission assurance. Other topics of interest include geo-political aspects of energy security within the Trans-Atlantic Alliance, as well as the INDOPACOM area of responsibility. Separately, he is Chair of the NATO Science and Technology Organization program to study hybrid warfare's impact on energy security and Alliance cohesion.

Retired from the United States Army after 25 years of both active and reserve component service, Dr. Dupuy’s last major assignment was in Afghanistan, where he earned the Bronze Star and the Global War on Terrorism Expeditionary Medals.

In 2016, Dr. Dupuy completed a Ph.D. in Planning, Governance and Globalization at the Virginia Polytechnic Institute and State University (Virginia Tech). His dissertation title is: “Changing Patterns of Regionalism and Security in the Wider Black Sea Area: The Transformative Impact of Energy.” He is an assistant adjunct professor of political science at Virginia Tech and George Mason University.

## **Dr. Ion Iftimie**(Central European University, Vienna, Austria)

*Technologist, Energy and Environmental Security SME*

Education: PhD (Summa cum Laude), Central European University, Vienna, Austria. He holds a Bachelor of Business Administration in International Business from the George Washington University in Washington D.C., a Master of Arts (M.A.) in Strategic Security from the National Defense University in Washington D.C., and a M.A. in International Security from the Bundeswehr University in Munich, Germany. He is also a graduate of the Harvard Kennedy School Executive Program in Technology Policies and of the Senior Course on Security Policy in Europe at the Swedish Defense University.

Career: Dr. Iftimie is a lector at the NATO Defense College in Rome, Italy, where he also served until recently as an Eisenhower PhD Fellow and as a Visiting Scholar. He has over one decade serving as a military officer for the United States Department of Defense (DoD) and the Intelligence Community (USIC). His research interests revolve around energy and environmental security, cyber deterrence, and space.

Literature: Author of *Natural Gas as an Instrument of Russian State Power* (Westphalia Press, 2015)—a NATO Multimedia Library recommended book in the Energy Security category—and of numerous academic articles about emerging technologies in both national and regional security contexts.

Honors: Order of the Spur, Combat Infantry Badge, Iraq and Afghanistan Wars Veteran.

## **Dr. Daniel Nussbaum** (NATO Science and Technology Organization’s Systems Analysis and Studies (SAS)-163 and Naval Postgraduate School)

As a faculty member in the Operations Research Department, the Engineering School and the Energy Academic Group, Dan Nussbaum provides several critical functions. He teaches courses in Cost Estimating and Analysis, mentors students throughout their graduate coursework, including their master’s theses, provides Cost Estimating and Business Case Analyses for major governmental organizations. He designs, develops and delivers distance learning courses in Cost Estimating and Analysis, and in Energy studies, and he provides leadership to the Energy Academic Group.

Education

1964 BA, Mathematics and Economics, Columbia University.

1971 Ph.D., Mathematics, Michigan State University.

1973 Fellow, National Science Foundation, Econometrics and Operations Research,

Washington State University.

1983 National Security Management, National Defense University.

1985 Employment of Naval Forces, US Naval War College.

1995 Senior Officials in National Security (SONS) Fellow, Harvard University, Kennedy School of Government

Employment History

*2004-present: Energy Academic Group, Operations Research Department.*

* Teach graduate level courses in cost and schedule estimating, other OR areas and energy studies, including critical infrastructure studies.
* Lead and conduct research supporting senior government decision makers in cost and schedule estimating and control, cost benefit analysis, and business case analysis.
* Thesis advisor and mentor for US and foreign national military officers and civilians
* Develop new, joint, all distance learning Masters programs.

*1999-2004 Principal, Booz Allen Hamilton​. ​*

* Responsible for a broad range of resource management, cost, financial and economic analyses, with clients across the government and commercial spectrum. Developed new business opportunities for 500+ member team.
* Major financial and management systems projects included developing financial and management systems within US Department of Defense and for NATO aspirants.
* Led economic analyses, business case analyses, and life-cycle cost estimates to support cost-beneficial decisions for very large government systems within Air Force, Navy, Director of Central Intelligence, and Health and Human Services Departments.

*1996-1999 Director, Naval Center for Cost Analysis, Office of the Assistant Secretary of Navy (Financial Management and Comptroller), Washington, DC.*

* Chief advisor to the Secretary of Navy on all aspects of cost and schedule estimating and control and single Navy point of contact for guiding, directing and strengthening cost estimating and analysis throughout the Department of Navy. Directed all Navy Independent Cost Estimates as required by Congress and senior Defense leadership on ships, aircraft, missiles, electronics, and automated information systems. Directed special, high visibility, cost and economic analyses for Secretary of Navy, Chief of Naval Operations and Commandant of Marine Corps.
* Provided cost and schedule estimating and control policy and leadership for all Department of Navy commands Navy commands. Developed and implemented cost estimating standards, models, tools, and web and database resources for Navy and OSD analysts.
* Developed first integrated cost research program to identify what needed to be done to improve cost estimating and analysis tools in the Departments of Navy and Defense.

*1987-1996 Division Head, Naval Center for Cost Analysis; Washington, DC.*

* Headed cost engineering, aircraft and weapons divisions. Conducted Independent Cost Estimates and cost-benefit analyses on all naval weapons, naval aircraft and aircraft systems. Developed and implemented cost estimating tools. Results provided critical and required cost estimates to the most senior levels of decision makers in the Navy and Department of Defense.
* Planned and executed the Navy's research program covering all aspects of cost and acquisition technologies. Provided products and results to senior leadership in Navy.

*1982-1986 Deputy Director and Acting Director, Operations Research and Cost Analysis Divisions, Naval Air Systems Command; Washington, DC. ​*

* Planned and conducted cost and cost/benefit analyses on all major naval aviation systems, including fixed and variable wing aircraft, missiles, and automated information systems. Results were furnished to senior level decision makers in the Departments of Navy and Defense and used as the analytical basis for defensible and reasoned major capital investment decisions.

*1977-1981 Director, Economic Analysis and Operations Research, Headquarters, US Army, Europe; Heidelberg, Germany.*

* Directed headquarters’ program of mathematical modeling in support of resolving critical operations research and resource management problems, including foreign currency fluctuations, relationship of funding to military readiness, value engineering, capital investment decisions and total cost of operations. Provided high-level operations research and econometric support to senior decision makers across the command. Created an operations research cell for the European theater to provide civilian analysts training in real world defense issues, while providing headquarters with greater analytic talent.

*1974-1976 Mathematician/Operations Research Analyst; U.S. Army Concepts Analysis Agency; Bethesda, Maryland. ​*

* Designed, developed, managed and led operations research/systems analysis methodologies and studies. Conducted operations research studies in financial management, resource analysis, manpower utilization, and logistics. Studies were grounded in mathematical programming, econometric modeling, Markov processes and dynamic inventory modeling. Results were instrumental in building efficient and effective Army short term and long terms financial plans.

*1969-1974 Faculty member and Chairman, Department of Mathematics and Statistics, Saginaw Valley State University; University Center, Michigan. ​*

* Developed and taught courses in mathematics, statistics, computer science and economics. Built curricula to support applied engineering program and led department initiatives in budget, personnel and public affairs. Recipient of University’s award for excellence.

Professional Activities

* International Cost Estimating and Analysis Association (ICEAA); Arlington, VA.
  + Past National Board Member, Past President and Director of Outreach, 2009-present
  + National President 2003-2008
  + Board of Directors 1992-present
  + Responsible for the highly regarded national training and certification program of an international professional organization. Provide oversight of content and staffing of annual training and training workshops. Responsible for designing and managing acquisition of a training tool which covers the body of knowledge in cost estimating and analysis in a single interactive, automated teaching tool. This syllabus and tool are now in the hands of over 3500 professional cost estimators around the world.
* Washington Institute for Operations Research and Management Science​.
  + Former President
  + Former Vice President​.
* Military Operations Research Society (MORS).
  + Board of Directors, 1988-91
  + Working Group Advisor/Chair

## **Mr. Paul Michael** **Wihbey**(Georgetown University and Institute on the Geopolitics of Energy)

Biographical Information

- Executive Director, Institute on the Geopolitics of Energy & Strategic Resources, at the recently established (July 2019) Center for American Geopolitics, Washington DC, a 501c3 nonprofit organization

- Visiting Scholar, Environmental & Energy Management Institute, The George Washington University, Washington DC.

Mr. Wihbey is an internationally recognized authority on the geopolitics of energy and unconventional fuels such as oil sands, shale oil and gas, LNG, logistical supply chains, and relevant geopolitical, regulatory, and market factors.

He is a published author on the future of global oil and is Visiting Professor & Fellow, Emerald Energy Institute of Petroleum Economics, Policy and Strategic Studies, University of Port Harcourt, Nigeria.

His 2009 groundbreaking book, 'The Rise of the New Oil Order’, published in Geneva Switzerland, in both French and English editions, foresaw the emergence of unconventional crude oil and gas, the demise of Peak Oil Theory, and the rise of North America as the new global energy superpower.

He has been keynote speaker at numerous energy conferences in the Persian Gulf, China, Hong Kong and Singapore, West Africa, North America, Turkey, and Europe. He is a respected strategic planner and initiator of energy-related projects endorsed by the US Department of Energy/INL; the Province of Alberta, Canada; China/CNPC; and Government of Nigeria.

He has also privately consulted on contentious US domestic and intentional energy projects at the request of major financial institutions in North America, Asia, and the UK.

Recent Activities

*Washington DC: 2019-Current.*

* Member, NATO Energy Security Analysis (NESA) Program/STO designation, Organized and led by Dr Arnie Dupuy, ODASD (OE).
* Paul Michael is the geopolitics of energy subject matter expert on the panel as well as specializing in HEW/ Hybrid Energy warfare, a subset of energy geopolitics,

*Washington DC / Port Harcourt Nigeria: July 2020.*

* Energy Geopolitics Post Graduate Course, Emerald Energy Institute, and the Institute of Petroleum Studies, University of Port Harcourt, Nigeria.

*Romania / Newsweek: October 24, 2019*

* Contributing author of a four-page analysis on US-Russia competition over  
  Romanian Black Sea Energy Resources, by Dr Dupuy, Ioana Hincu & PM Wihbey.
* <https://newsweek.ro/economie/viitorul-energetic-al-romaniei-e-la-washington-nu-la-moscova>

*China, November 24-29, 2019:  IIGS, Beijing.*

* Paul Michael lectured at Renmin University of China University, Beijing, and Tongji-German University, Shanghai.
* Topic: US-Sino energy trade as a component of overall Trump Administration energy policies.
* IIGS is a grouping of experts from the C 9 universities and other ranking institutions in China.

*Italy, Dec 10-12: IAEE, Rome.*

* In October, the International Association for Energy Economics / Italy, accepted a submission on Energy Security Policy for NATO.

*July 25, USMC/MCU*

* Paul Michael was honored to instruct a two hour course at US Marine Corps University (MCU) on Eastern Mediterranean Energy Geopolitics to Reserve Senior Staff Officers, based on his article, published by Middle East Studies, MCU, June 2019.
* <https://www.usmcu.edu/Portals/218/MES/Insights/MES_insights_v10_i3_lo.pdf?ver=2019-06-18-124845-407>

*July 8, 2019, IIGS*

* Authored scholarly article for China's International Institute on Governance & Strategy (IIGS), published in Chinese and English: President Trump and Sino-US Energy Trade: Creation and Value of the Energy Bridge in the aftermath of the Osaka Trade Negotiations.

*June 13, 2019*

* Invited expert on a Geopolitics of Energy webinar, EEMI, The George Washington University.

Past Activities

Born in the US, and raised in Montreal, he has honorably served both nations in various capacities from energy-related war-gaming lectures at the United States Marine Corps' War College, to leading Canadian Parliamentary delegations to Lebanon. Wihbey worked in a number of capacities at the Embassy of Canada, Beirut Lebanon, in the mid-1980s.

* From 1999-2002, he was Strategic Fellow, IASPS, Institute of Advanced Strategic and Political Studies, Washington DC.
* From 2002-2017, he was President of GWEST (Global Water and Energy Strategy Team) LLC, Washington DC.
* From 2017-2019, he was contracted as a Research Fellow - Geopolitics of   
  Energy; Daniel Morgan Graduate School/National Security, (DMGS) Washington DC.
* In 2000, he testified to the US Congress, House Africa Subcommittee, for the establishment of a US military command for Africa. This was likely, the first public policy statement that eventually led to the founding of US Africa Command in 2007.
* 2014-15: On separate occasions, including 'War Game Tropic Thunder', he was invited by the US Marines Command & Staff College and USMC War College, Quantico Virginia, to lecture to 200 officers and USG civilian counterparts on key developments in energy geopolitics and their impact upon regional security, with primary focus on Nigeria and West Africa.
* In February 2016, several months prior to the US presidential election, the leading French language business newspaper in Switzerland, “L’AGEFI” (Geneva), published a front-page interview with Paul Michael that addressed the energy, economic and foreign policy agenda of a forthcoming Trump presidency -- the first of its kind in Europe.
* From 2003-2010, he was lead author of a quarterly journal, The Global Politics of Energy, published and distributed by FirstEnergy Capital, (Calgary, Alberta) the largest energy investment firm in Canada.
* In 2014, Paul Michael was an invited VIP Guest, ADIPEC, Abu Dhabi.

GWEST LLC Primary Engagements

* FirstEnergy Capital (2003-2010), Calgary Alberta; Including annual conference keynotes in Toronto, London and New York City.
* Alberta Enterprise Group Energy Investment Conferences: Geneva and Washington; Event preparation and organization including usage of the US Senate Finance Committee Chamber with Senator Hatch of Utah.
* Government of Saskatchewan, (2009-2011); Representing the government’s carbon capture /CCS technology in the United States and Washington.
* Idaho National Laboratory / US DOE, Western (Rocky Mountain) Energy Corridor, an initiative arising from Mr. Wihbey’s 2006 Beijing Energy Corridor Proposal.  
  -US National Commission on Energy Policy & Congressional Black Caucus Foundation; “Responsible Hydrocarbon Development in West Africa”; Paul Michael Wihbey, Lead Author.

Selected Recent Keynotes & Presentations

* EnergyHub, Interview: 'Nigeria and OPEC' (July 2020).
* Forecasting Global Energy Markets: 'A Perspective on the Interface of US National Security and Energy Geopolitics.' DMGS, Washington DC, September 2018.
* Edmonton Chamber of Commerce: 'The New Trump Regime: Energy, Environment and Trade', Edmonton Alberta, (Jan 2017)
* Investing in Gwadar; Academy & Finance, Dubai (March 2015)
* Changes in Nigerian Crude Export Markets, Abuja Petroleum Roundtable, (July 2014)
* Control of Energy in the Kurdistan Region of Iraq; Academy&Finance, Abu Dhabi (March 2014)
* Turkey, Eastern Mediterranean, and US Security Interests: New Dynamics in the Middle East's. Balance of Energy Power, Institute of World Politics, Washington DC, (2012)
* Global Resources Investing Conferences Global Tour, Academy&Finance; Abu Dhabi, Hong Kong, Singapore, Zurich, and Geneva (2012)
* Global Energy Conference, FirstEnergy Capital / Societe Generale; Toronto, Canada (2012)
* Second Annual Resources Summit, Forbes & Manhattan; Laguna Beach, California (2011)
* Canada Connects, Alberta Enterprise Group, Energy & Trade Mission; Washington DC, (2011)
* Society of Petroleum Engineers; Port Harcourt, Nigeria (2009),
* Lecture--Haute Ecole Specialisse de Suisse Occidentale (HES-SO)/University of Applied Sciences; Lausanne Switzerland (2009)
* 9th Annual TransPacific Maritime Conference; Los Angeles (2009)
* Oil Sands Symposium, Co-Chair, The Canadian Institute; Calgary, Canada, (2009)
* 1st Heavy Oil Conference, Beijing, 2006.

Wihbey is a dual US-Canada citizen, and resides in Arlington VA.

He is fluent in French, with working knowledge of Arabic.