

## Potential for Hydrogen as an Aviation Fuel

- Join us for the Panelist Session with the Leading Experts and the Visionaries -

Date & Time: July 1<sup>st</sup>, 2021, 7:00-8:00 pm EST

Registration (Free): [https://aiaa.zoom.us/webinar/register/WN\\_alZE95gnRhW5pDU6al9hfg](https://aiaa.zoom.us/webinar/register/WN_alZE95gnRhW5pDU6al9hfg)

The AIAA New England Section is organizing a panel on the potential of using hydrogen to decarbonize energy use in aviation. Come and hear the experts talking about recent advances, competing technologies, promises, challenges, and time frames. The panelists will talk for about 15-20 minutes each then followed by Q&A.



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**Dr. Bruce J. Holmes**, D.E., FAIAA, FRAeS, Comm, Inst, CFI, AMEL, ASEL, ASES, AIGI, CE-525, Remote Pilot, Principal, Holmes Consulting LLC. Bruce is a five-decade veteran with an internationally recognized legacy in aeronautics R&D leadership, aviation technology strategies, aerospace investment consulting, advanced air mobility systems development, and disruptive innovations throughout his field. During recent years, he has served as CTO for a firm developing a hydrogen-fueled eVTOL, as an executive for aviation companies developing digital connectivity solutions, and as a consultant to the industry involved in subsonic, transonic, and supersonic aircraft development programs. Bruce's background of earlier years includes government roles in Senior Executive Service leadership at NASA. He serves on special groups for the National Academy of Science, Engineering, and Medicine, and on the FAA Administrator's Research, Engineering, and Development Advisory Committee – NAS Operations Subcommittee (REDAC). He has published over one hundred technical papers, been honored with numerous NASA medals as well as industry and professional society awards, including the FAA Wright Brothers Master Pilot Award, recognizing 50 years of safe piloting. He is a Fellow of the AIAA and the Royal Aeronautical Establishment.



<https://aeroastro.mit.edu/faculty-research/faculty-list/zoltan-s-spakovszky>

**Dr. Zoltan Spakovszky** is a Professor of Aeronautics and Astronautics at the Massachusetts Institute of Technology and the director of the Gas Turbine Laboratory. His principal fields of interest include turbomachinery, thermodynamics, aeroacoustics, fluid system instabilities, gas turbine engine design, aircraft design for the environment, and electrified aviation. He has been awarded more than a dozen ASME International Gas Turbine Institute best paper awards, the ASME Melville Medal, the ASME Gas Turbine Award, the ASME John P. Davis Award, the ASME IGTI Scholar Award, a NASA Honor Award, several Aero-Astro Undergraduate Advising / Teaching Awards, and the Ruth and Joel Spira Award for Excellence in Teaching. Dr. Spakovszky is a technical consultant to industry and government agencies, and, while on leave from MIT, held the position of Senior Advisor for Strategy, Technology, and Innovation at Mitsubishi Heavy Industries (MHI). He is a Fellow of the ASME,

the Vice Leader of the ASME, the Vice Leader of the ASME Gas Turbine Segment Leadership Team, and Associate Fellow of the AIAA, and served as the review chair of the ASME International Gas Turbine Institute and as an associate editor for the ASME Journal of Turbomachinery. The talking points of his presentation will revolve around learnings from the past, the challenges with making and storing hydrogen, and the prospects for aviation.



[http://www.blazetech.com/views/pro\\_serv/ViewBio\\_MoussaLong.php](http://www.blazetech.com/views/pro_serv/ViewBio_MoussaLong.php)

**Dr. N. Albert Moussa** will moderate the panel. He is President of BlazeTech Corp. and specializes in the safety and risk assessment of new technologies, particularly in the aerospace industry. He worked on the Lockheed Liquid Hydrogen aircraft in the late 1970's and served on the Technical Committee to advise on the hazards of the hydrogen bubble formed in the Three Mile Island nuclear plant accident. Over the years he has assessed the safety associated with hydrogen, various fuels, Li-ion batteries, and more recently Unmanned Aerial Systems. He teaches an annual professional course on aircraft fire hazards, protection and investigation, and was an invited lecturer on the subject at various universities and at the National Transportation Safety Board Training Center. He forewarned about the vulnerability of aircraft fuel systems before the TWA 800 and Air France Concord disasters. He has published over 200 publications, presentations and reports including one book and a conference proceeding. Dr. Moussa has received numerous awards, including the William Littlewood Lectureship Award by the AIAA/SAE, the Engineer of the Year Award by the AIAA New England Section, AIAA Distinguished Lecturer, two best paper awards and several ASME citations. He has served on various national advisory committees, on the Editorial Board of an ASME journal. He received a B.S. from Stanford University and M.S/Ph.D. from MIT.

