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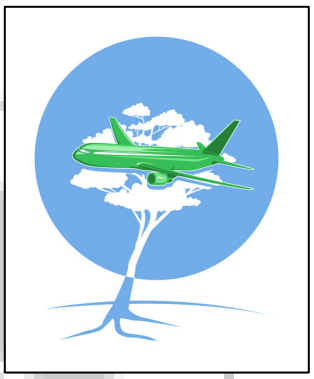
The Puget Sound Chapter of AESS presents

Development of a sustainable biofuel for aviation

Dr William (Bill) Lyons—Global R&D Alliances, The Boeing Company

4:45-5:45pm, Wednesday, April 29, 2009



http://www.popsci.com/military-aviation-amp-space/article/2008-12/flying-high-biofuels

The development of bio-derived fuels for aviation poses some unique technical and economic feasibility challenges that will be discussed in this presentation. In particular, alternative aviation fuels must provide life-cycle environmental performance improvements over conventional petroleum fuels. They must also meet technical and safety requirements that are unique to aviation, such a possessing a high energy content per unit weight and volume, perform well in the harsh airplane environment, and also meet the very demanding requirements for aircraft turbine engines. From a business perspective, bio-derived fuels will need to have worldwide availability at an acceptable price and production and distribution must be economically viable, sustainable and scaleable for years to come. The availability of feedstocks for fuel production is just one of the primary challenges to be overcome and such feedstocks cannot be developed on agricultural land that competes with food production. Over the next few years, Boeing's primary goal is to achieve certification of "drop-in" fuel replacements that yield the most short term environmental benefits in the current global commercial fleet, and accelerate research and development for viable long term alternatives.

To attend this virtual meeting, **please RSVP no later than 28 April 2009** to
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Speaker Bio: Dr William (Bill) Lyons is a Technical Fellow in Boeing Phantom Works, the Boeing Company's enterprise-wide R&D organization. He manages a number of technology development programs related to sensing and modeling of atmospheric emissions by aircraft. He is also a member of the Global Technology Organization in Boeing's Office of the CTO and is responsible for building international technology alliances, collaborative R&D and, transfer of technologies between Australia and the United States. Most recently, he led the team responsible for developing the business case for the establishment of Phantom Works Australia.

He has over 18 years experience in Systems Engineering and Systems Development for satellite applications. Before joining Boeing he was an Assistant Professor in Satellite Remote Sensing and Meteorology at the University of Oklahoma. He has also held Australian Government appointments in the Departments of Defense and Agriculture, including international assignments in South East Asia, representing Australian Government interests.