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**"Progress and Lessons Learned from Nuclear Rocket Project Timberwind"**

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From 1987 through 1993 an originally highly classified nuclear rocket program based on the particle bed reactor was managed directly from the Pentagon. Substantial progress was made prior to its termination in 1993. This seminar will discuss some of the major achievements and some lessons-learned from that project.

Roger Lenard holds a BS in Physics and an MS degree in Chemical Physics. He is an academician with the International Astronautical Academy and a member of the International Council of Systems Engineers. Roger is the chief technical manager of Little Prairie Services, a technical consulting organization for 20 years. Roger served as the Chief Technical Officer of Planetary Power Inc., and was a lead systems engineer on the Ares I-X rocket flight test program. Roger is a retired Air Force officer, with 2600 hours of flying time in Air Force fighter aircraft, civil and Civil Air Patrol aircraft; he was an air combat tactics instructor and a squadron test pilot. Roger was a program manager at the Strategic Defense Initiative Organization, where he managed high technology programs of over \$150M per year, including an advanced nuclear rocket engine, lightweight guided kill vehicles and hypervelocity gun programs. He is a retired Principal Member of the Technical Staff at Sandia National Laboratories, holds patents in a numerous space and energy areas. Roger has won several competitive contracts from the National Aeronautics and Space Administration in multi-physics modeling. Roger has written of 150 technical papers and holds numerous patents and technical advances.