

Welcome New Members+Retirees



June 8 Noon



Life after Langley Supercomputing Research



Dr. Olaf O. Storaasli

Abstract

Olaf's *Life After Langley* was a 2nd career at **Oak Ridge National Lab***. His NASA research (main course) was aerospace innovation & DOE research (dessert) Supercomputing & **Future Tech**. On US & overseas travels, Olaf considers NASA Langley & ORNL the world's 2 most challenging, rewarding & best places to conduct research! Olaf compares NASA & DOE: research life, colleagues, motivation, management, computer expertise, rewards, security, funding, age, salary & local communities of hi-tech innovators, an inspiration & catalyst for all. He'll share how ORNL recruited him from a great

NASA career just after winning a new \$15M NASA [Reconfigurable Space Computer](#) project for Langley.

With theory & experiment, supercomputers form a 3rd leg of scientific discovery. Experiments are costly and slow, so discoveries now often harness supercomputers, whose accelerators perform most computations. Olaf will describe analyses on past & present NASA & ORNL supercomputers & project how future ExaFLOP supercomputers (i.e. ORNL's [Frontier](#)) will enable future breakthroughs.

Our Speaker

Besides NASTRAN, CAD/CAM, Viking Mars Lander analysis,, [Finite Element Machine](#) (NASA's 1st "inhouse" parallel computer) lead & reducing Shuttle SRB redesign from [hours to seconds](#), [Olaf](#), a [supercomputing pioneer](#), created novel algorithms, including GPS, winner of NASA's Software-of-the-Year Award. His supercomputing research harnessed accelerators (i.e. [FPGAs](#)) to enable scientific discovery (i.e., fast large matrix solution). His Engineering Ph.D. is from NCSU & 2 postdocs: [NTNU Thompson Fellowship](#) & [EPCC](#). To prepare for Olaf's talk you can view this [related AIAA talk](#).

*Olaf's mentor "uncle Bar" (MIT EE) designed+built Manhattan Project [Calutrons](#) with [Ernest Lawrence](#) to [enrich U](#) for [Little Boy](#) to [end WW2](#), avoid Japan invasion & bring [Peace](#).
