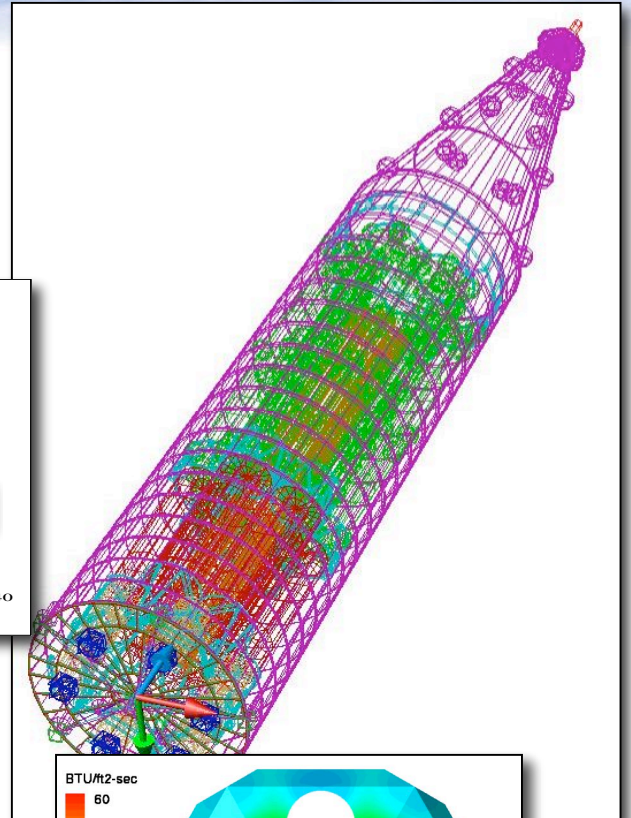
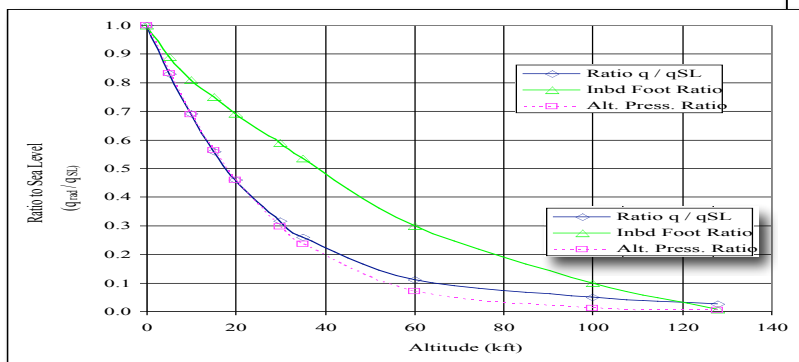


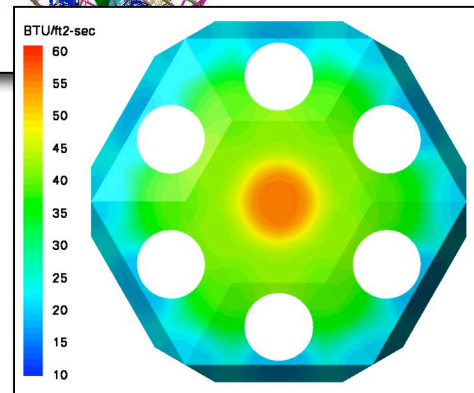
# Complex Thermal Analysis

THERMAL CAPABILITIES INCLUDE:  
Finite Element and Lumped Parameter Analysis  
Aerothermal and Plume Heating Analysis  
1D, 2D and 3D Modeling of Thermal Environment  
Automated 3D CAD Model Translation



TGV performs complex thermal modeling using Thermal Desktop, TAK 2000, TSS/SINDA-FLUINT, and MINIVER to simulate thermal environments and analyze the effects of conduction, convection, and radiation on flight vehicle surfaces and structures.

TGV Inc. uses these tools to perform thermal investigation for a variety of configurations and applications. With finite element and lumped parameter analysis programs, results can be produced including the effects of thermal conduction, radiation, and natural and forced convection. These tools have been used for applications such as aerothermal and plume heating, as well as for space radiation.



TGV has extensive experience in a variety of aerospace systems, including flight equipment, avionics applications, and rocket vehicle flight environments. This experience includes thousands of hours running SINDA-FLUINT, TAK 2000, MECAD, SAUNA, HTS and SDR thermal simulation applications.

TGV Inc. has the capability to perform thermal modeling using a variety of software applications to simulate and analyze temperature effects on flight vehicles and their components.



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