Procurement Title*	Thermal Vacuum Chamber
Statement of Work*	Contractor shall provide the design, manufacture, installation and training for a Thermal Vacuum Chamber at Sandia National Laboratories (SNL) for the purpose of serving as a thermal vacuum/space simulation test chamber for space flight system qualification testing. The thermal vacuum chamber shall meet the following minimum specifications: -A horizontal layout with a hinged access door allowing complete removal of the platen. -The chamber shall have internal dimensions of sufficient size to accommodate a 40" X 54" platen capable of rolling completely out of the chamber. -The chamber shall have a thermal cycling shroud and platen installed using liquid nitrogen for cooling and electric heaters for heating. -The shroud and platen shall be independently controlled and capable of operating from -185°C to +150°C. This temperature range must be sustained with a 100 watt payload mounted to the platen. -In addition to the shroud and platen, a scavenger panel shall be installed for contamination control and pumping assist. This panel shall be filled with liquid nitrogen and operate at -185° C under all conditions when the chamber is under vacuum. -Ultimate vacuum of the system shall range from 1X10-6 Torr with shroud and platen at +65°C to 8X10-6 Torr with the scavenger panel operating at -185°C and within 24 hours after crossover. -Cryogenic pumps shall be used to achieve this vacuum. -The roughing pump system shall be designed to minimize pump down time and the possibility of contamination by pump oil. -Pump down time from atmosphere to crossover (50 mTorr) shall not exceed 45 minutes with the test article installed. -Multiple feed thru ports shall be installed to provide access for cabling to various payloads mounted onto the platen. -Maximum allowable working pressure (MAWP) of the chamber shall not exceed 2 p.s.i.g. Sandia will review and evaluate all pressure and structural analyses of the system design performed by the contractor prior to manufacture. Sandia's approval of the system design does not relieve the contractor of the obligation to supply a vessel conforming to specification. In order to make use of excess hardware already in possession of Sandia, some items will be provided to the manufacturer for use in this system. These items include a roughing pump, cryopumps, compressors and a control rack with various associated hardware.
Mandatory Requirements*	Contractor must be US Based Company