## Abstract Submitted for the MAR05 Meeting of The American Physical Society

Low Mass 1.6 MHz Sonofusion Device ROGER S. STRINGHAM, First Gate Energies, PO Box 1230 Kilauea, HI 96754, Phone: 808 828 2859 — We have developed a much improved cavitation system for sonofusion, compared to our initial systems. The new system is a low mass 1.6 MHz unit that produces 40 watts of excess heat with an acoustic input power of 17 watts. The increase in frequency (to 1.6 MHz from 40 KHz) increases the heat, improves the performance, shows reproducible results, and indicates durability. The calorimetry is a simple in flow through system. The difference between output and input temperature at steady-state, times the flow gives the power (calories/s) output of the sonofusion reactor. The energy density of this system is of the order of commercial energy suppliers.

Scott Chubb Naval Research Laboratory

Date submitted: 30 Nov 2004 Electronic form version 1.4