

## **Delta Search Labs Awarded US Air Force Contract to Develop Advanced Software Tools for Modeling and Simulation of Complex Non-Equilibrium Plasma Flows**

CAMBRIDGE, Mass., Aug. 23 /PRNewswire/ -- Delta Search Labs, Inc. (DSL), a leading innovative technology development Lab, announced that it has been awarded a Phase II SBIR Contract by the United States Air Force to develop a state of the art simulation tool to model a broad spectrum of important contemporary plasma applications.

According to the leading project scientist of Delta Search Labs, a predictive quantitative numerical result for the non-equilibrium complex plasma flows can be obtained only by using a fully kinetic description. The core of the proposed tool is specifically designed to capture self-consistent evolution of strongly non-equilibrated gas and plasma flows with sharp gradients. The proposed package will comprise a set of Relativistic Maxwell- Vlasov, Poisson-Boltzmann and Mixed-Collisional solvers, solution-adaptive high resolution spatial meshing with automatic tracking of discontinuities and regions of high spatial gradients.

The breadth of build-in plasma and gas processes will make the software readily applicable to wide range of scientific and engineering systems: basic physics of laser-matter interaction and gas discharges; plasma-spacecraft interaction; laser ablation and gas discharge electrical propulsion systems; plasma sources and plasma processing devices. After certain add-on modifications, the code could also tackle gas and plasma MEMs modeling; bio- tech and medical applications; semiconductor elements and nano-devices.

Delta Search Labs, Inc. is a ground breaking Research and Development Foundation incorporating unique technology realization capabilities. This state-of-the-art supercomputing, and advanced visualization facility located in Technology Square @ MIT in Cambridge, Massachusetts. Located in the high- tech cluster around Cambridge, its faculty members include industry experts and the best minds from leading academics.

Delta Search Labs is active in developing proprietary technologies and products across the five sectors in which it is active. Delta Search Labs' currently has seven patented products in the pipeline that will be launched over the next 1-2 years. Delta Search Labs' quality management system is ISO 9001:2000 certified, recognition that the company is committed to high-quality products.

According to Kamal Jaffrey, CEO of Delta Search Labs, "Our mission is to build innovative technology that will overcome complex problems and give customers/partners a strong return on their investment dollars."

For more information, please go to <http://www.deltasearchlabs.com/>