



GALAXY ADVANCED ENGINEERING, INC.

P.O. BOX 614

BURLINGAME, CALIFORNIA 94011

Tel: (650) 740-3244

Fax: (650) 347-4234

E-mail: bahmanz@aol.com

SHARC-2/PC

A Strategic High-Altitude Radiance Code for PC

SHARC-2/PC calculates atmospheric radiation and transmission over the 2-40 um spectral regions for arbitrary paths within 50 and 300 km altitude, including space viewing. It models radiation due to NLTE (Non Local Thermodynamic Equilibrium) molecular emissions, which are the dominant sources at these altitudes. This new version has been upgraded to include a fully integrated auroral model with time-dependent chemistry, extension down to 50 km altitude, and radiation from the minor isotopes of CO₂. In addition, there have been numerous internal upgrades to the various modules. These include a violet line shape for the radiative excitation module; multiple integration options for the chemical kinetics module that include industry-standard subroutines; an OH capability; embedding of the auroral region into a quiescent atmosphere; and improvements in the radiation transport algorithms.

SHARC-2/PC uses the **GAE** graphics library under **UGL** to simulate the **CALCOMP** graphic calls as well as using its device drivers for the output of graphics. The PC version supports up to 100 different device drivers

We at **Galaxy Advanced Engineering, Inc. (GAE)** have taken the steps to produce the PC version i.e. **SHARC-2/PC**. Currently the program is operating on IBM/PC or 100% compatibles under PC/DOS or MS/Windows95/98/2000/ME/XP and NT operating system. To obtain the code and more information, please contact our company or call us at 650-740-3244.