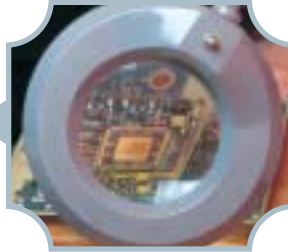


The Draper Distinguished Performance Award

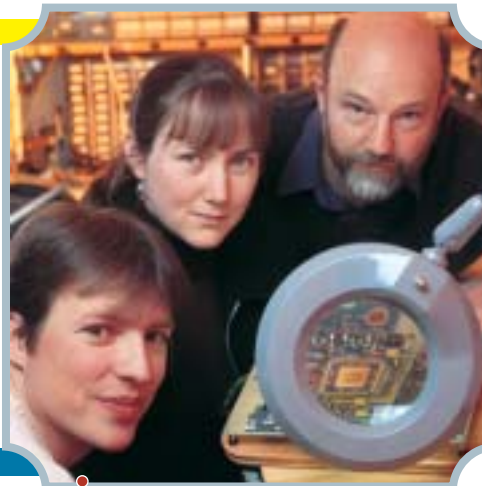


Established in 1989, the Draper Distinguished Performance Awards recognize outstanding technical achievements by teams or individuals during the previous fiscal year. These achievements must represent a high standard of excellence, provide significant benefit to the Laboratory, and be considered a major advance by the outside community.

All Draper employees (excluding Officers) are eligible, including both full-time and part-time employees and individuals

who have recently left the Laboratory. Any Draper employee may nominate an individual or team for consideration. Nominations are reviewed by the Distinguished Performance Award committee, which selects recipients and forwards their recommendations to senior management for approval. This year's Award committee included Bill Kelleher, Elizabeth Siler, Anne Clough, Steven DiTullio, Phil Hattis, Ken Houston, Paul Johnson, and Marc Weinberg.

The 2000 Draper Distinguished Performance Awards were presented to two teams by Chairman of the Board Dr. Robert Hermann and President and CEO Vince Vitto at the Annual Members Dinner on October 4, 2000.



clockwise from here

Karl Flueckiger, Barry Fink, Marc McConley, Dale Landis, Don Gustafson, and Avram Tetewsky, received the honor for demonstrating Draper's INS/GPS integration technique in hardware. A unique Deep Integration architecture and algorithm was developed, analyzed, and simulated. The team's new architecture integrates raw inertial measurements with raw GPS correlator outputs through a nonlinear navigation filter that optimizes navigation performance against all jammer types. Software was written to implement the algorithm, and it was integrated with a commercial receiver. The team demonstrated that their Deep Integration architecture and algorithm provides an additional 15 to 20 dB of antijam capability beyond that of conventional military systems.

The second team, Keith Baldwin, Sheila Flory, Dave McGorty, Joan Orvosh (not pictured) and Penn Clower (not pictured) demonstrated that strategic-grade instruments can be controlled with a single, small module. They developed a module that generates almost all functions locally, which results in improved instrument control and a greater ability to measure minute accelerations and process information. Commercial technologies were applied to the project, but a radiation-hardenable architecture was maintained for the module. In addition to significant sitemap flexibility, the module is relatively low cost, enables an architecture that is more maintainable, and offers low life-cycle costs to the Navy.

