NASA, Sweden partner on small spacecraft technology development

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NASA and the Swedish National Space Board (SNSB) are collaborating to develop powerful low-cost satellites for advanced space missions.

Miniaturization is a recent trend in space exploration, as smaller and smaller spacecraft demonstrate that they can do things that once required enormous‹and expensive‹spacecraft. NASA is interested in determining the feasibility of small spacecraft doing the work of large ones, either by themselves or in spacecraft constellations.

The partnership harnesses the experience of AAC Microtec, a miniaturized multifunctional electronics systems developer, Uppsala, Sweden, in designing and building miniature Space Plug-and-Play Avionics compatible spacecraft buses and NASA's Ames Research Center's, Moffett Field, Calif., expertise in advanced scientific applications.

The Swedish National Space Board is funding AAC Microtec[1]s development of a miniature Space Plug-and-Play Avionics (SPA) compatible platform, including interfaces, onboard computers, and power subsystems. The platform will be tested at Ames in June 2012.

The Swedish platform is being developed jointly with the U.S. Air Force Research Laboratory (AFRL) Space Vehicle Directorate, Wright-Patterson Air Force Base, Ohio, as part of an international effort to provide operational responsiveness.

The United States and Sweden have been collaborating in space for decades; early cooperation involved studies of the sun's effects on Earth's magnetic field; as well as sounding rocket and high altitude balloon experiments. This collaboration holds the promise of expanding what the two countries may accomplish together in space.

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