



Advanced Flexible Thin-Film Photovoltaic (FTFPV) UltraFlex (UF) Solar Array System

- Initial UltraFlex solar array development conducted by AEC-Able under internal IR&D funding
- Additional development under JPL contracts (UF selected for Mars '01 Lander and Mars Phoenix)
- Further development and collaborative concentrator solar array efforts with Entech, Inc. (AEC-Able bought by ATK)
- UltraFlex-175 solar array selected as ST-8 validation experiment for flight in 2010 by NASA New Millennium Program for eventual use on science missions

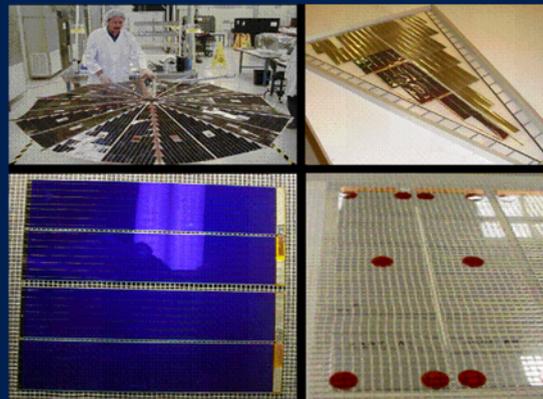


SBIR

- NASA GRC SBIR Phases 1 and 2 funding for UltraFlex FTFPV solar array development
- FTFPV and UF technology flown for 1 year in space on MISSE-5 Experiment (flight data feeds into UF array database)
- UltraFlex design with multijunction photovoltaics baselined by Lockheed Martin to power the NASA Orion Service Module



NASA Glenn Small Business Innovation Research (SBIR) contracts with AEC-Able/ATK Space Systems on UltraFlex FTFPV to develop a near-term, low-risk approach for applying thin-film solar cell technology to a lightweight array structure in order to increase system performance for specialized mission needs.



Additional Phase 3 funding was added for inclusion and testing of CIGS thin-film cells into a fully functional gore assembly.

MISSE-5 flight experiment (1 year exposure on the International Space Station) provides important data on durability of UltraFlex components for NASA missions.

