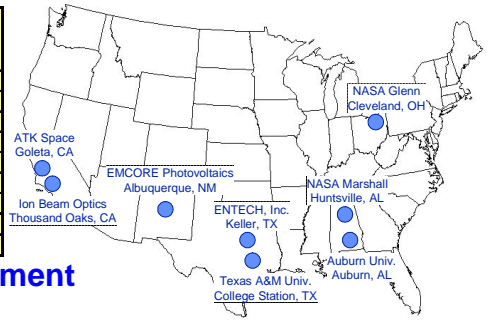


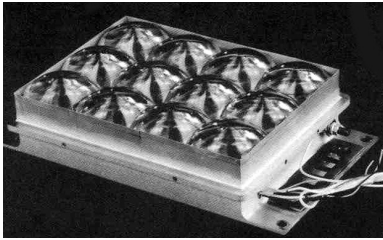
# Stretched Lens Array (SLA) SquareRigger Technology Maturation Program

**A Four-Year Competitively Awarded NASA Program to Develop the Best Solar Array Technology for NASA's Exploration Missions to the Moon, Mars, and Beyond!**

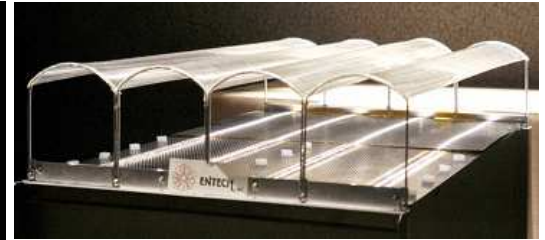
Team Member	Location	Role	Budget (Over 4 Years)
ENTECH, Inc. (Small Business)	Keller, TX	Prime Contractor (Lenses & Cell Circuits)	\$7,408,366
ATK-Space (ABLE Engineering)	Goleta, CA	Solar Array Structure and Integration	\$3,315,352
EMCORE Photovoltaics	Albuquerque, NM	Advanced Solar Cells	\$999,999
Ion Beam Optics (Small Business)	Thousand Oaks, CA	Lens Protective Coatings	\$850,001
Auburn University	Auburn, AL	Testing and Educational/Public Outreach	\$897,895
Texas A&M University	College Station, TX	Solar Array Radiator	\$851,346
NASA Marshall Space Flight Center	Huntsville, AL	Space Environmental Effects Testing	\$1,115,200
NASA Glenn Research Center	Cleveland, OH	High-Voltage Solar Array Testing	\$1,058,060
			\$16,496,218



## Outstanding National Team of Industry, Academia, and Government



**The Mini-Dome Lens Array (Above) Flew on NASA/USAF PASP+ Flight Test in 1994-95 with Outstanding Performance**



**The SCARLET Array (Left) Powered the NASA/JPL Deep Space 1 Probe in 1998-2001 with Flawless, Award-Winning Performance, and Led to SLA (Above)**

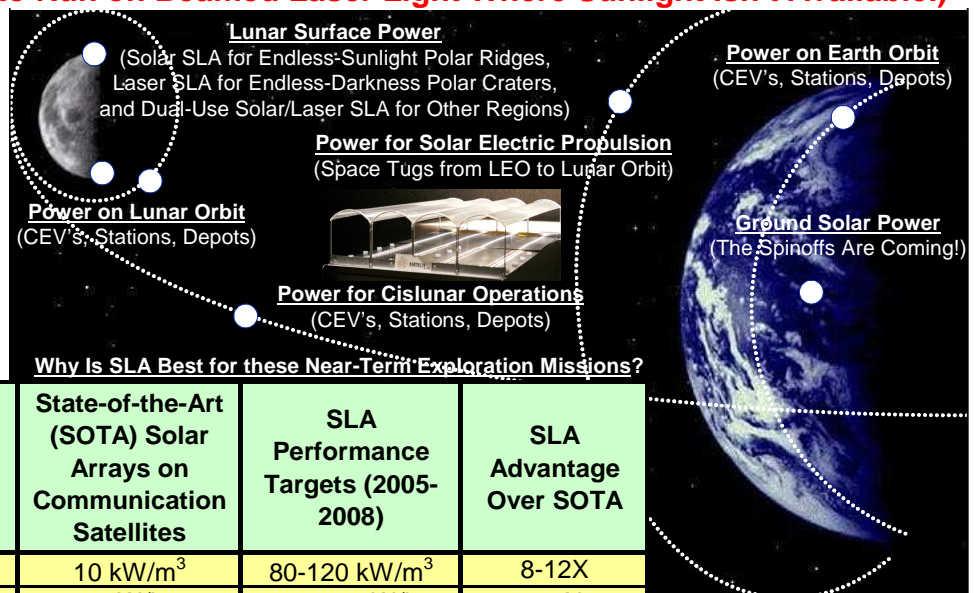
**Simple Lightweight Fresnel Lens and Solar Cell Technology with Spaceflight-Proven Heritage: Lenses Capture Sunlight and Focus It Onto Small Solar Cells, Saving \$\$\$ and Mass.**

**SLA Technology Will Provide Cost-Effective Space Power, at Unprecedented Performance Levels, for Near-Term Exploration Missions in the Earth-Moon Neighborhood, and for Longer Range Missions to Mars and the Rest of the Solar System.**

**(SLA Can Even Be Configured to Run on Beamed Laser Light Where Sunlight Isn't Available.)**

**DOD Is Also Funding SLA Solar Array Development for Radiation-Hardened Military Spacecraft.**

**... and Spectacular Ground Solar Power Spin-Offs Are Also in the Works!**



**Why Is SLA Best for these Near-Term Exploration Missions?**

Performance Metric	State-of-the-Art (SOTA) Solar Arrays on Communication Satellites	SLA Performance Targets (2005-2008)	SLA Advantage Over SOTA
Stowed Power for Launch	10 kW/m <sup>3</sup>	80-120 kW/m <sup>3</sup>	8-12X
Specific Power	60 W/kg	300-500 W/kg	5-8X
Areal Power	300 W/m <sup>2</sup>	300-400 W/m <sup>2</sup>	1.00-1.25X
Power Capacity per Solar Array Wing	10 kW	50 kW	5X
Relative Watts per Dollar	1.00	4.00	4X
Solar Cell Manufacturing Capacity	200 kW/year	1,600 kW/year	8X
Reliable Operational Voltage	100 V	300-600 V	3-6X
Relative Solar Cell Radiation Shielding	1.00 per gram	8.00 per gram	8X

**For More Information:  
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E-Mail:  
sla@entechsolar.com**