

Locked Martin Technologies for NASA SMD Tech Showcase

Abstract	Mission Design	DeepSpace Spacecraft Design and Development	Mission Operations	Lander Design and Development	Curio (LM SmallSat)	Entry Systems/Aerocapture	Lunar Terrain Vehicle (LTV)	Sample Return/Sample Handling
LEAG								
ASTROLAB: A South Pole-Aitken Basin Sample Return Mission Using Commercial Rovers and Landers	X	X		X			X	X
Lunar Surface Geodesy: Local Geodetic Networks for a Tectonically Active Moon	X		X	X				
The Lunar Geophysical Network Mission	X	X		X				
Endurance A	X	X	X	X			X	
METRIC: Mineralogical, Elemental and Tomographic Reconnaissance Investigation for CLPS	X		X	X			X	X
ROCKSTAR: A Thermal Infrared Hyperspectral Imager for Meter Scale Data Collection From Orbit	X	X	X		X			
PORIS, An Astronaut-Borne Portable infrared Imaging Spectrometer For Rapid Assessment and Downselect of Potential Rock and Soil Samples							X	
LUNAPIX & MAPX: Particle Induced X-Ray Emission/X-Ray Fluorescence Instruments for Lunar and Planetary Science	X		X	X			X	
The SelenITA Mission	X	X	X		X			
MEPAG								
Mars Life Explorer	X	X	X	X				X
Abzu: A Mission to Uncover the Origin of Ancient Organics on Mars in situ	X	X	X	X				
An Incoherent Scatter Radar Mission to Mars (ISRMM)	X	X	X	X		X		
Mars Icebreaker	X	X	X	X		X		
Mars Stationary Orbiter (MSO)	X	X	X		X			
Mars High Resolution Imager (MHRI)	X	X	X		X			
Mars Weather/Comm Infrastructure	X	X	X		X			
Smallsat Spectrometers	X	X	X		X			
Key Technology Needs Identified from KISS Report	X	X	X	X		X	X	
Mars Polar Lander and ClimatE Record Network (Mars PLACER Net or MPN)	X	X	X	X	X	X		
Monitoring Areostationary Constellation for Atmosphere and Weather in Space (MACAWS)	X	X	X		X			
TH2OR Electromagnetic Sounding For Subsurface Brines On Mars	X	X	X	X		X		
Gangotri mission concept on the glacial key to the Amazonian climate of Mars	X	X	X	X		X	X	
MExAG								
Mercury Scout	X	X	X					
Mercury Lander Mission Concept Study	X	X	X	X				
GRAIL AT MERCURY: Coherent Laser Tracking For Geophysics	X	X	X		X			
OPAG								
Jupiter System Observatory at Sun-Jupiter Lagrangian Point One	X	X	X					
Optical Sensor for ISRU Minerals (OSIM)	X	X	X	X		X		
New Frontiers Titan Orbiter	X	X	X					
Rideshare4OuterPlanets	X	X	X		X			
Shadow Chaser: a smallsat concept to determine the middle and upper atmospheric structures of Uranus and Neptune through stellar-occultation measurements from Earth orbit	X	X	X		X			
Small Next-Generation Atmospheric Probe (SNAP) For Ice Giant Missions	X	X	X		X			
VIPRE: A Tool For Visualization Of The Impact Of Probe Entry Conditions	X	X	X					
Interstellar Object Interceptor Missions: Opportunities and Challenges	X	X	X		X			
Uranus Orbiter and Probe (UOP)	X	X	X	X		X		
Enceladus Orbilander	X	X	X	X		X		X
Enceladus multiple flyby (EMF)	X	X	X	X	X	X		
Saturn Probe	X	X	X		X	X		
Titan Orbiter	X	X	X		X	X		
Triton Ocean World Surveyor	X	X	X		X	X		
Prometheus: A New Frontiers mission concept to Jupiter's moon Io	X	X	X		X	X		

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SBAG								
Centaur orbiter and lander (CORAL)	X	X	X	X				
Ceres Sample Return	X	X	X	X				X
Comet surface sample return (CSSR)	X	X	X	X				X
Halley 2061 Missions	X	X	X					
Technology gaps for rapid response missions to near-Earth objects, interstellar objects, and long-period comets	X	X	X		X			
CORSAIR: Comet Rendezvous Sample Acquisition, Investigation and Return	X	X	X		X			X
VExAG								
SAEVe: Seismic and Atmospheric Exploration of Venus	X	X	X	X				
V-BOSS: Venus Bridge Orbiter and Surface System	X	X	X	X		X		
Venus In Situ Explorer (VISE)	X	X	X					