Link	Topic #	Title	Objective	Business Area	LM POC	Email Address	Phone
View Online	A16-090	Flexible Integrated Intelligent Network (FIIN) for Prognostics Health Management (PHM Systems)	The objective of this effort is to develop and demonstrate an integrated, robust, flexible, and intelligent PHM network for Army aviation applications.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin Michael Weingarten Sheronda Nash	jeffrey.poulin@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	- 860-882-0343 856-359-3965
View Online	A16-091	Cost Effective Aerodynamic Missile Domes	Develop optical materials and novel methodology to produce an infrared-transmitting dome with high optical quality and enough design flexibility to simultaneously minimize cost and aerodynamic drag for missile seeker applications. Produce a low-drag dome for demonstration in an imaging missile seeker to prove the design and manufacturing technology developed in this effort.	LM Space Systems - SMD LM Missiles and Fire Control (MFC)	Jesus Isarraras John Fontana	jesus.isarraras@lmco.com john.c.fontana@lmco.com	408-431-3519 407-356-3968
View Online	A16-092	Low Cost, High Performance, Elastomeric Case Insulation for Solid Rocket Motors	Develop a low cost, domestically sustainable, elastomeric material for use as internal solid rocket motor case insulation, and demonstrate improved performance over state-of-the-art materials through increased stable char yield, reduced erosion, and low thermal conductivity of material up to maximum internal case temperatures.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Space Systems - SMD LM Missiles and Fire Control (MFC)	Jeffrey Poulin Jesus Isarraras John Fontana	jeffrey.poulin@lmco.com jesus.isarraras@lmco.com john.c.fontana@lmco.com	- 408-431-3519 407-356-3968
View Online	A16-093	Multisensing Target Discrimination System	Develop an autonomous capability for missile systems to perform real time discrimination between targets, such as Rolled Homogeneous Armor and MOUT. Increase missile system lethality by rapidly and accurately identifying the target and automatically configuring the warhead.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Space Systems - SMD LM Missiles and Fire Control (MFC)	Jeffrey Poulin Jesus Isarraras John Fontana	jeffrey.poulin@lmco.com jesus.isarraras@lmco.com john.c.fontana@lmco.com	- 408-431-3519 407-356-3968
View Online	A16-094	TITLE: Development of longwave infrared tunable laserline rejection filters	To develop longwave infrared tunable laserline rejection filters for uninterrupted enhanced force protection and situational awareness.	LM Space Systems - SMD	Jesus Isarraras	jesus.isarraras@lmco.com	408-431-3519
View Online	A16-095	High Speed Low Loss Quantum Optical Switch for 1550nm band	Develop and demonstrate a high speed low loss optical switch enabling high capacity quantum entanglement routing in fiber-based quantum networks.	LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Sheronda Nash	sheronda.nash@lmco.com	856-359-3965
View Online	A16-096	Indoor GPS Satellite Constellation Antenna Array	The design, development and fabrication of a realistic indoor GPS constellation simulated signal environment to support GPS antenna and receiver testing in a jamming environment to greatly reduce the need to conduct outdoor jamming testing and bridge the capability gap between outdoor testing and laboratory testing.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin John Fontana Sheronda Nash	jeffrey.poulin@lmco.com john.c.fontana@lmco.com sheronda.nash@lmco.com	- 407-356-3968 856-359-3965
View Online	A16-097	Expendable Active RF Technology for Helicopters (EARTH)	To develop an expendable active RF radar countermeasure that can be deployed from rotary wing aircraft and effective at defeating threats independently or in conjunction with low powered directed energy RF countermeasures.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin John Fontana Michael Weingarten Sheronda Nash	jeffrey.poulin@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	- 407-356-3968 860-882-0343 856-359-3965
View Online	A16-098	Developing A Robust Software Assurance Tools for Cyber Security	The ubiquitous nature of modern computing requires an arsenal of security tools and techniques. One of the more powerful techniques is the employment of Automated Tools. While many Automated Tools exist they are unfortunately weak in many critical aspects such as forcing a tradeoff between large numbers of false positives and false negatives, failure to identify deliberately injected malicious code, and lack of breadth of coverage, including and a failure to account for many aspects of computing hardware such as hardware accelerators. This topic seeks to develop a set of robust Automated Tools for the modern heterogeneous computing systems following both active and passive security paradigms to address the shortcomings above which are intrinsic to existing technologies. The Automated Tools proposed will provide software security at development and deployment stages for both custom and integrated Commercial-Off-The-Shelf systems.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Space Systems - SMD LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin Jesus Isarraras John Fontana Michael Weingarten Sheronda Nash	jeffrey.poulin@lmco.com jesus.isarraras@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	- 408-431-3519 407-356-3968 860-882-0343 856-359-3965
View Online	A16-099	High Power MWIR Laser with Coherently Combined Emitters	Develop a mid-wave infrared (MWIR) laser module, based on coherent combination of several laser emitters, for directed energy and remote sensing applications.	LM Space Systems - ATC LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Space Systems - SMD LM Missiles and Fire Control (MFC)	Dawn Sisneros Jeffrey Poulin Jesus Isarraras John Fontana	Dawn.Sisneros@lmco.com jeffrey.poulin@lmco.com jesus.isarraras@lmco.com john.c.fontana@lmco.com	303-379-3194 - 408-431-3519 407-356-3968
View Online	A16-100	Third Generation Sensor Anti-reflecting Surface Textures for Maximum Transmission through Infrared Optical Surfaces	Second Generation Infrared Sensors have a single band focal plane with one F# and 5 or 6 lenses. Third Generation Sensors have a dual band focal plane with two F#s and a plethora of refractive lenses and mirrors. As a result the transmission through this optical system is about 65% of second generation sensors with the resultant increase in noise equivalent temperature difference. It is the objective of this topic to develop anti-reflecting surface textures to have transmission values equal to or better than Second Gen. These surface textures must include both the MWIR and LWIR bands. Innovative solutions to this important problem are being sought after such as the motheye or structured gradient meta-materials. Successful completion of this project would have an overwhelming positive impact on the performance of the 3rd Gen Sensor.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Space Systems - SMD LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin Jesus Isarraras John Fontana Sheronda Nash	jeffrey.poulin@lmco.com jesus.isarraras@lmco.com john.c.fontana@lmco.com sheronda.nash@lmco.com	- 408-431-3519 407-356-3968 856-359-3965
View Online	N162-073	Data in Transit Encryption Algorithms for Hand-held devices and Man-pack Radios	Develop Encryption Algorithms for Hand-held devices and Man-pack Radios. The encryption algorithm is to provide Commercial Solutions for Classified (CSfC) protection and integrity and confidentiality of transmitted information. The transmitted information will include Command and Control (C2) messages and Precision Location Information (PLI) for dismounted radios and tactical hand-held devices while providing the ability to be certified at the classified level, agnostic to the network used (i.e. encrypt the data portion of the packet only).	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS)	Jeffrey Poulin John Fontana Michael Weingarten	jeffrey.poulin@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com	- 407-356-3968 860-882-0343
View Online	N162-074	Artificial Intelligence (AI)-based C2 Digital Assistant	The objective is to develop an artificial intelligence (AI)-based Command and Control (C2) digital assistant that uses advanced computing techniques such as machine learning and natural language processing to provide answers to complex mission-specific questions to enhance battlespace decision making.	LM Space Systems - ATC LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Space Systems - SMD LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Dawn Sisneros Jeffrey Poulin Jesus Isarraras John Fontana Michael Weingarten Sheronda Nash	Dawn.Sisneros@lmco.com jeffrey.poulin@lmco.com jesus.isarraras@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	303-379-3194 - 408-431-3519 407-356-3968 860-882-0343 856-359-3965
View Online	N162-075	Small Unit Terrestrial Sensor Kit	Develop a portable terrestrial sensor kit that is suited to the needs of small tactical units to assist in local area/perimeter security.	LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Michael Weingarten Sheronda Nash	michael.weingarten@lmco.com sheronda.nash@lmco.com	860-882-0343 856-359-3965

View Online	N162-076	Miniaturization of GPS Alternative Survey Equipment	Develop miniaturized inertial survey system which can meet the current IPADS performance requirements with significant reductions in form factor and weight. The system must support artillery missions by obtaining accurate Survey Control Points (SCPs) and to lay azimuths for indirect fire. In doing so, the IPADS provides a common grid at the accuracies required to support indirect fire missions as opposed to standalone Global Positioning System (GPS) systems which provide an absolute GPS solution.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky	Jeffrey Poulin	jeffrey.poulin@lmco.com	-
View Online	N162-077	Suppressor Cleaning Method	The objective of this effort is to develop an effective method to remove carbon/metal fouling from permanently sealed, Quick Detach (QD) and direct thread-on suppressors. Current cleaning methods are often ineffective on permanently sealed suppressors. Proper cleaning would extend the service life of these items and eliminate unnecessary replacement costs.				
View Online	N162-078	Adaptive Hull Structure	The objective is the development of an innovative simple method of deployable/retractable hull modification allowing higher water speed movement of an amphibious vehicle.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin John Fontana Michael Weingarten Sheronda Nash	jeffrey.poulin@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	- 407-356-3968 860-882-0343 856-359-3965
View Online	N162-079	Fuel Efficiency Improvements for Amphibious Vehicles	The objective is the development of innovative technologies that reduce fuel consumption enabling longer mission durations and/or increased operating ranges for an Amphibious Combat Vehicle (ACV) 1.1 vehicle.	LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	John Fontana Sheronda Nash	john.c.fontana@lmco.com sheronda.nash@lmco.com	407-356-3968 856-359-3965
View Online	N162-080	Optically Based Small Arms Force-On-Force Training System	Develop Optically Based Small Arms Force-On-Force Training System (OBSAT) for live, force-on-force engagement that provides an alternative to laser-based engagement systems.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Mission Systems and Training, Training and Logistics Solutions (MST TLS)	Jeffrey Poulin Joshua Kitain	jeffrey.poulin@lmco.com joshua.d.kitain@lmco.com	- 4073061039
View Online	N162-081	Expeditionary Medical Refrigeration Unit	The objective is to develop an innovative, energy efficient, small human transportable field refrigeration unit for field medical operations. The unit will be used to keep temperature sensitive human blood products, vaccines, and reagents within an optimum temperature range to ensure long term viability.				
View Online	N162-082	Analog to Information Processing	Develop an analog to information processing approach to bypass Analog-to-Digital Converter (ADC) that is capable of lower power consumption, smaller circuit size and does not require upfront digitization.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Space Systems - SMD LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin Jesus Isarraras John Fontana Michael Weingarten Sheronda Nash	jeffrey.poulin@lmco.com jesus.isarraras@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	- 408-431-3519 407-356-3968 860-882-0343 856-359-3965
View Online	N162-083	Rapid, Low Cost, High-quality Component Qualification Using Multi-scale, Multi-physics Analytical Toolset for the Optimization of Metal Additive Manufacturing Process Parameters	Develop an innovative multi-scale, multi-physics, analytical software toolset capable of optimizing critical metal laser powder bed additive manufacturing (AM) process parameters to enable rapid, low cost, high-quality component qualification.	LM Space Systems - ATC LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Space Systems - SMD LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Dawn Sisneros Jeffrey Poulin Jesus Isarraras John Fontana Michael Weingarten Sheronda Nash	Dawn.Sisneros@lmco.com jeffrey.poulin@lmco.com jesus.isarraras@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	303-379-3194 - 408-431-3519 407-356-3968 860-882-0343 856-359-3965
View Online	N162-084	Hardware Open Systems Technologies (HOST) Hardware Integration Tool Set	The Navy is seeking an innovative tool set solution for the integration of Hardware Open Standards Technologies (HOST) conformant components which will aid in component selection and component integration such that system requirements can be met at a reduced cost.	LM Aeronautics (Aero) LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS)	Craig Owens Jeffrey Poulin John Fontana Michael Weingarten	craig.l.owens@lmco.com jeffrey.poulin@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com	817/777-6504 - 407-356-3968 860-882-0343
View Online	N162-085	Analytical Tool for Design and Repair of Engine Hardware for Robust High Cycle Fatigue Performance	Develop a robust analytical tool for the design and repair of high cycle fatigue (HCF)-resistant integrally bladed rotor (IBR)/blisk airfoils.	LM Aeronautics (Aero) LM Mission Systems and Training, Under Sea Systems (MST USS)	Craig Owens Michael Weingarten	craig.l.owens@lmco.com michael.weingarten@lmco.com	817/777-6504 860-882-0343
View Online	N162-086	Hardware Open Systems Technologies (HOST) Conformance Tool	Develop an innovative conformance test tool which will support and add automation to the verification of hardware conformance to the HOST Standards for form factor and functionality that is implemented either in hardware or firmware (i.e. part of the software architecture).	LM Aeronautics (Aero) LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS)	Craig Owens Jeffrey Poulin John Fontana Michael Weingarten	craig.l.owens@lmco.com jeffrey.poulin@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com	817/777-6504 - 407-356-3968 860-882-0343
View Online	N162-087	Onsite Structural Restoration Methods for Aircraft Components	Develop an innovative repair process that restores dimensional and structural capability of damaged Ti-6Al-4V aircraft components.	LM Aeronautics (Aero) LM Mission Systems and Training, Under Sea Systems (MST USS)	Craig Owens Michael Weingarten	craig.l.owens@lmco.com michael.weingarten@lmco.com	817/777-6504 860-882-0343
View Online	N162-088	High Temperature, High Performance Wire Insulation	Develop a high temperature, insulated wire construction for use in a flexible harness for engine applications, able to withstand the severe environment of an engine bay.	LM Aeronautics (Aero) LM Space Systems - ATC LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS)	Craig Owens Dawn Sisneros John Fontana Michael Weingarten	craig.l.owens@lmco.com Dawn.Sisneros@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com	817/777-6504 303-379-3194 407-356-3968 860-882-0343
View Online	N162-089	Scalable Aircraft Hardware Open System Technologies (HOST) Prototype Development	Develop, demonstrate and validate scalable hardware based on the design and interface requirements in the Tier 1 [1] and Tier 2 [2] Hardware Open System Technologies (HOST) standards capable of hosting traditionally developed software, as well as software designed/developed in accordance with more current openly available standards (e.g. Future Airborne Capability Environment (FACE) [3]).	LM Aeronautics (Aero) LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS)	Craig Owens Jeffrey Poulin John Fontana Michael Weingarten	craig.l.owens@lmco.com jeffrey.poulin@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com	817/777-6504 - 407-356-3968 860-882-0343
View Online	N162-090	Adaptive Training System for Maintaining Attention during Unmanned Aerial Systems (UAS) Operations	Develop an innovative and adaptive training system, techniques and computer-based simulation trainer, for Unmanned Aerial Systems (UAS) operators to maintain attentiveness during long shiftwork associated with extended UAS missions.	LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Training and Logistics Solutions (MST TLS) LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	John Fontana Joshua Kitain Michael Weingarten Sheronda Nash	john.c.fontana@lmco.com joshua.d.kitain@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	407-356-3968 4073061039 860-882-0343 856-359-3965
View Online	N162-091	Design Tool for Topological Optimization of Air-Platform Structural Components made by Additive Manufacturing	Develop an integrated structural and material design tool that can exploit the benefits of Additive Manufacturing to produce novel designs for future weapon, target drone and unmanned air vehicle (UAV) structural components that cannot be fabricated by current methods.	LM Aeronautics (Aero) LM Space Systems - ATC LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Space Systems - SMD LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS)	Craig Owens Dawn Sisneros Jeffrey Poulin Jesus Isarraras John Fontana Michael Weingarten	craig.l.owens@lmco.com Dawn.Sisneros@lmco.com jeffrey.poulin@lmco.com jesus.isarraras@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com	817/777-6504 303-379-3194 - 408-431-3519 407-356-3968 860-882-0343
View Online	N162-092	All Solid-State Batteries for Navy Applications	Develop reliable all solid-state batteries (ASSB) with enhanced safety and performance by incorporating novel solid state electrolytes for naval aircraft applications.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Space Systems - SMD LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS)	Jeffrey Poulin Jesus Isarraras John Fontana Michael Weingarten	jeffrey.poulin@lmco.com jesus.isarraras@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com	- 408-431-3519 407-356-3968 860-882-0343
View Online	N162-093	Airborne Multistatic Anti-Submarine Warfare Operator Target Detection and Discrimination System Workload Reduction	Develop innovative solutions to enable an operator to efficiently detect and discriminate a target(s) in an airborne multistatic Anti-Submarine Warfare (ASW) mission.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin John Fontana Michael Weingarten Sheronda Nash	jeffrey.poulin@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	- 407-356-3968 860-882-0343 856-359-3965
View Online	N162-094	Sensory System to Transition Pilots From Aided to Unaided Vision During Flight to Mitigate Spatial Discordance	Develop a system to seamlessly transition pilots from aided to unaided vision while performing night operations.	LM Aeronautics (Aero) LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC)	Craig Owens Jeffrey Poulin John Fontana	craig.l.owens@lmco.com jeffrey.poulin@lmco.com john.c.fontana@lmco.com	817/777-6504 - 407-356-3968

View Online	N162-095	Novel Multi-Axial Fatigue Analysis Tool for Dynamic Components using Frequency Domain Method	Develop a novel repair assessment and remaining useful life analysis tool for rotorcraft dynamic components using a frequency domain fatigue analysis method which takes into account the effects of multi-axial, local plasticity, and damage state of the component.	LM Mission Systems and Training, Under Sea Systems (MST USS)	Michael Weingarten	michael.weingarten@lmco.com	860-882-0343
View Online	N162-096	Pocket-sized Surface Flotation Device for Cold-Water Aviation Survival	Develop a surface flotation device for an aviation mishap survivor that is pocket-sized, has a method for easy entry, and provides protection from exposure to cold water.	LM Aeronautics (Aero) LM Mission Systems and Training, Under Sea Systems (MST USS)	Craig Owens Michael Weingarten	craig.l.owens@lmco.com michael.weingarten@lmco.com	817/777-6504 860-882-0343
View Online	N162-097	Non-Contact Torque Sensor for Unmodified Composite Shafts and Non-Ferrous Metal Shafts	Develop a non-contact torque sensing capability for pre-existing, flight-qualified, rotating drive shafts made from carbon fiber reinforced composites, titanium alloys, and aluminum alloys.	LM Mission Systems and Training, Under Sea Systems (MST USS)	Michael Weingarten	michael.weingarten@lmco.com	860-882-0343
View Online	N162-098	Aircraft Deck Motion Compensation Design	Develop deck motion compensation algorithm and control law design methodology and guidance via airborne and/or shipboard sensors (e.g. GPS and rate/acceleration gyros) to improve aircraft boarding rate capabilities in high ship motion conditions.	LM Aeronautics (Aero) LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS)	Craig Owens Jeffrey Poulin John Fontana Michael Weingarten	craig.l.owens@lmco.com jeffrey.poulin@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com	817/777-6504 - 407-356-3968 860-882-0343
View Online	N162-099	Multistatic Transmission Loss (TL) Estimation	Develop a robust Transmission Loss (TL) estimation capability for multistatic Anti-Submarine Warfare (ASW) sonars that can be used to reduce the operator workload by eliminating clutter.	LM Mission Systems and Training, Under Sea Systems (MST USS)	Michael Weingarten	michael.weingarten@lmco.com	860-882-0343
View Online	N162-100	Integrated Hybrid Structural Health Monitoring (SHM) System	Develop an integrated, low-weight, hybrid Structural Health Monitoring (SHM) system that effectively utilizes fiber optic (FO) sensors and piezoelectric (PZT) actuators to capture damage data and corresponding structural response.	LM Aeronautics (Aero) LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Craig Owens Jeffrey Poulin John Fontana Michael Weingarten Sheronda Nash	craig.l.owens@lmco.com jeffrey.poulin@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	817/777-6504 - 407-356-3968 860-882-0343 856-359-3965
View Online	N162-101	Future Airborne Capability Environment (FACE) Transport Protocol Mediation and Integration	Create a Graphical User Interface (GUI) tool for Future Airborne Capability Environment (FACE) transport protocol abstraction and platform data model integration that addresses the Navys need to create a more efficient process for developing and integrating FACE Units of Portability (UoP), saving both time and money. The tool should be able to highlight disparities between protocols and messages, and data models and facilitate development of interoperability between these approaches.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky	Jeffrey Poulin	jeffrey.poulin@lmco.com	-
View Online	N162-102	Next Generation Wind Measurement Technology	Develop an innovative and low cost wind measurement solution capable of mapping wind speed and direction for the entire airspace for US Navy Air Capable Ships.	LM Space Systems - ATC LM Space Systems - SMD LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Dawn Sisneros Jesus Isarraras John Fontana Michael Weingarten Sheronda Nash	Dawn.Sisneros@lmco.com jesus.isarraras@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	303-379-3194 408-431-3519 407-356-3968 860-882-0343 856-359-3965
View Online	N162-103	Improved Volume Hologram Optical Elements	Develop an innovative solution to significantly improve the performance and manufacturability of Volume Hologram Optical Elements (VHOE) by improving diffraction efficiency, uniformity and reduce aberrations of the element as a whole.	LM Space Systems - SMD LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Training and Logistics Solutions (MST TLS)	Jesus Isarraras John Fontana Joshua Kitain	jesus.isarraras@lmco.com john.c.fontana@lmco.com joshua.d.kitain@lmco.com	408-431-3519 407-356-3968 4073061039
View Online	N162-104	High Capability Portable Foreign Object Debris (FOD) Removal System for Naval Aircraft	Develop a high capability, portable, foreign object debris (FOD) removal system to address a capability gap between larger systems and manual removal to positively impact foreign object damage rates and increase readiness, safety, reliability, and provide cost avoidance.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Mission Systems and Training, Under Sea Systems (MST USS)	Jeffrey Poulin Michael Weingarten	jeffrey.poulin@lmco.com michael.weingarten@lmco.com	- 860-882-0343
View Online	N162-105	Real Time Gas Turbine Engine Particulate Ingestion Sensor for Particle Size and Composition	Develop an innovative aircraft/engine sensor or sensor system that is capable of determining the composition (with respect to Calcium, Magnesium, Aluminum, and Silicon (CMAS) compounds and other reactive media) as well as characterize the size and concentration of ingested sand and dust particulate.	LM Aeronautics (Aero)	Craig Owens	craig.l.owens@lmco.com	817/777-6504
View Online	N162-106	Advanced High Speed Bus Technologies for Units Under Test (UUT), Test and Evaluation	Develop innovative test methods and associated tools required to support the advanced testing requirements of emerging high-speed bus technologies that are required for design-for-test as well as operational testing.	LM Aeronautics (Aero) LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Space Systems - SMD LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Craig Owens Jeffrey Poulin Jesus Isarraras Sheronda Nash	craig.l.owens@lmco.com jeffrey.poulin@lmco.com jesus.isarraras@lmco.com sheronda.nash@lmco.com	817/777-6504 - 408-431-3519 856-359-3965
View Online	N162-107	Improve Proton Exchange Membrane (PEM) Electrocatalysts	Develop advanced non-noble metal PEM electrocatalysts and engineered nanostructures to improve submarine oxygen generators and significantly reduce cost.	LM Mission Systems and Training, Under Sea Systems (MST USS)	Michael Weingarten	michael.weingarten@lmco.com	860-882-0343
View Online	N162-108	Unmanned Surface Vehicle (USV)-Mounted Acoustic Generator	Develop an innovative acoustic generator capable of being mounted to and operating from an Unmanned Surface Vehicle (USV).	LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	John Fontana Michael Weingarten Sheronda Nash	john.c.fontana@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	407-356-3968 860-882-0343 856-359-3965
View Online	N162-109	Medium Voltage Direct Current (MVDC) Casualty Power	Develop a lightweight and affordable capability to restore Medium Voltage Direct Current (MVDC) power to zones isolated from generation by damage, to zones between the source and the rest of the system. Portable elements of the capability shall be light enough to be safely handled by a team composed of sailors of size and strength ranging from the 5th percentile female to the 95th percentile male. For a given ship design, the decision on whether to install an MVDC casualty power system will be based on risk and a comparison of the cost and system weight of the MVDC casualty power to the cost and system weight of effectively armoring and protecting the port and starboard buses from damage within a zone.	LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Michael Weingarten Sheronda Nash	michael.weingarten@lmco.com sheronda.nash@lmco.com	860-882-0343 856-359-3965
View Online	N162-110	Hermetically Sealed and Orientation-Independent Vacuum Gauge for Monitoring Deep Vacuum	Develop an innovative hermetically sealed, orientation independent vacuum measurement system capable of measuring vacuum levels between 1 Microtorr to 1520 Torr (~2 atm).	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Mission Systems and Training, Under Sea Systems (MST USS)	Jeffrey Poulin Michael Weingarten	jeffrey.poulin@lmco.com michael.weingarten@lmco.com	- 860-882-0343
View Online	N162-111	Naval Special Warfare Ultra High Frequency (UHF) Satellite Communications (SATCOM) Low Elevation Angle Antenna	Develop a UHF SATCOM antenna with low elevation angle coverage to meet the operational needs of Naval Special Warfare.	LM Aeronautics (Aero) LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Craig Owens Jeffrey Poulin Michael Weingarten Sheronda Nash	craig.l.owens@lmco.com jeffrey.poulin@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	817/777-6504 - 860-882-0343 856-359-3965
View Online	N162-112	Innovative Methods for Limited Dynamic Range Optical Detectors to More Effectively Operate in High Dynamic Range Environments	Develop an innovative technique to allow current state-of-the-art electro-optic systems to extend their dynamic range beyond their fixed capability.	LM Aeronautics (Aero) LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Space Systems - Special Programs LM Space Systems - SMD	Craig Owens Jeffrey Poulin Jeremy Schoos Jesus Isarraras	craig.l.owens@lmco.com jeffrey.poulin@lmco.com jeremy.e.schoos@lmco.com jesus.isarraras@lmco.com	817/777-6504 - 4087565436 408-431-3519
View Online	N162-113	Identify and Exploit Attributes of a Light Detection and Ranging (LIDAR) Signal to Improve Sea Mine Detection and Identification with a Low False Alarm Rate	Identify and exploit attributes of a LIDAR signal in hardware and/or software to demonstrate improved detection and identification of sea mine-like objects with a low false alarm rate for future Navy use.	LM Space Systems - ATC LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Space Systems - Special Programs LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS)	Dawn Sisneros Jeffrey Poulin Jeremy Schoos John Fontana Michael Weingarten	Dawn.Sisneros@lmco.com jeffrey.poulin@lmco.com jeremy.e.schoos@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com	303-379-3194 - 4087565436 407-356-3968 860-882-0343

View Online	N162-114	Modular Charge Delivery System (CDS) for Undersea Remotely Operated Vehicles (ROVs)	Develop and demonstrate an explosive Charge Delivery System (CDS) for precision placement by means of an Undersea Remotely Operated Vehicle (ROV)	LM Mission Systems and Training, Under Sea Systems (MST USS)	Michael Weingarten	michael.weingarten@lmco.com	860-882-0343
View Online	N162-115	Advanced Persistent Cyber Threat Anomaly Detection	Develop a real-time capability for anomaly based detection of cyber-attacks in Internet Protocol (IP) based Combat System networks.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Space Systems - SMD LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Training and Logistics Solutions (MST TLS) LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin Jesus Isarraras John Fontana Joshua Kitain Michael Weingarten Sheronda Nash	jeffrey.poulin@lmco.com jesus.isarraras@lmco.com john.c.fontana@lmco.com joshua.d.kitain@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	- 408-431-3519 407-356-3968 4073061039 860-882-0343 856-359-3965
View Online	N162-116	Mobile Platform for the Fuels Asset Maintenance Management System (FAMMS)	Develop a mobile platform (hardware and software) that integrates with the IBM MAXIMO Enterprise Asset Management (EAM) system used by Fuels Asset Maintenance Management System (FAMMS)				
View Online	N162-117	Materials Development for Affordable Maritime Compatible Radio Frequency Materials	Develop novel low-cost techniques for high volume manufacturing of maritime Radio Frequency (RF) materials.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin Sheronda Nash	jeffrey.poulin@lmco.com sheronda.nash@lmco.com	- 856-359-3965
View Online	N162-118	Shipboard Radar Cross Section/Radio Frequency (RCS/RF) Verification of Airborne Platform	Design and develop a system capable of measuring the Radar Cross Section/Radio Frequency (RCS/RF) performance of Naval platforms or sub-systems (i.e. apertures) while deployed at sea.	LM Aeronautics (Aero) LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Craig Owens John Fontana Sheronda Nash	craig.l.owens@lmco.com john.c.fontana@lmco.com sheronda.nash@lmco.com	817/777-6504 407-356-3968 856-359-3965
View Online	N162-119	SiC-Based High Voltage Capacitor Charging Innovations	Develop an advanced, modular and scalable capacitor charging converter that takes advantage of the unique characteristics of wide bandgap semiconductor devices. This converter will be capable of charging one or more 325kJ capacitor(s) to 6.5-10kVDC in 5 seconds at a repetition rate of up to 10 charges per minute. This duty cycle will be continuous without pause, and indefinite. The charger will be able to vary energy level and charge duration as needed to meet mission requirements, and present a manageable and reasonably continuous and level load to reduce effects on the power system.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin Michael Weingarten Sheronda Nash	jeffrey.poulin@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	- 860-882-0343 856-359-3965
View Online	N162-120	Trace Multi-Analyte Chemical Detection System for Underwater Unexploded Ordnance (UXO) Applications	Develop a trace chemical / explosive sensor system for underwater unexploded ordnance (UXO) applications that is effective for TNT and other nitro-based underwater UXO analytes of interest.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Mission Systems and Training, Under Sea Systems (MST USS)	Jeffrey Poulin Michael Weingarten	jeffrey.poulin@lmco.com michael.weingarten@lmco.com	- 860-882-0343
View Online	N162-121	New Condition Based Maintenance and Energy Command and Control Network Architectures for the Naval Expeditionary Force	The objective is to research, assess, and develop a new ground vehicle based network to enable future advances in condition-based maintenance (CBM) and energy command and control (EC2).	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin Sheronda Nash	jeffrey.poulin@lmco.com sheronda.nash@lmco.com	- 856-359-3965
View Online	N162-122	Many Octave, Ultra-Sensitive Low Frequency Receivers	The objective is to demonstrate Ultra-Sensitive Low Frequency Receiver with a compact RF front end that delivers better than 26 bit dynamic range and 1 Hz frequency resolution for >3 simultaneous signals of interest anywhere across 100 Hz to 20 MHz. This front end should encompass from the analog RF antenna feed into a commercial of the shelf (COTS) standard digital processor using a standard digital interface.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin John Fontana Sheronda Nash	jeffrey.poulin@lmco.com john.c.fontana@lmco.com sheronda.nash@lmco.com	- 407-356-3968 856-359-3965
View Online	N162-123	Augmented Reality Technologies for Training: A Video-See-Through, Helmet Mounted Display	To develop a lightweight, small, low-cost, Helmet Mounted Display (HMD) to support Virtual Reality (VR) and Augmented Reality (AR) training applications for Marine dismounts.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Training and Logistics Solutions (MST TLS) LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin John Fontana Joshua Kitain Michael Weingarten Sheronda Nash	jeffrey.poulin@lmco.com john.c.fontana@lmco.com joshua.d.kitain@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	- 407-356-3968 4073061039 860-882-0343 856-359-3965
View Online	N162-124	Software Tool for the Analysis of Optimal Training System Fidelity	Develop a software tool to assess and validate the efficacy of simulation-based training technologies in an effort to enhance learning performance using sensory analysis.	LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Michael Weingarten Sheronda Nash	michael.weingarten@lmco.com sheronda.nash@lmco.com	860-882-0343 856-359-3965
View Online	N162-125	Read Out of Single Photon Cryogenic Array Detectors Via Energy Efficient Digital Means	Develop a capability to enable digital data reports from microwave kinetic inductance detector (MKID) arrays that are currently being read out via analog wideband frequency-division multiplexed (FDM) techniques.	LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Sheronda Nash	sheronda.nash@lmco.com	856-359-3965
View Online	N162-126	Human Interface and Automation for Swarm Management	To develop and demonstrate a human interface and related decision support tools that allow human management of swarms of up to 100 unmanned vehicle systems in which communications are highly limited, attrition can occur, and individual swarm members may not have accurate state information about themselves and/or others.	LM Space Systems - ATC LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Dawn Sisneros Jeffrey Poulin John Fontana Michael Weingarten Sheronda Nash	Dawn.Sisneros@lmco.com jeffrey.poulin@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	303-379-3194 - 407-356-3968 860-882-0343 856-359-3965
View Online	N162-127	Shipboard Refrigerant Liquid-Vapor Phase Separator	Develop a compact and efficient refrigerant liquid-vapor phase separation system capable of operating under dynamic platform motion with minimal system impact.	LM Mission Systems and Training, Under Sea Systems (MST USS)	Michael Weingarten	michael.weingarten@lmco.com	860-882-0343
View Online	N162-128	Computational Tools to Enable Development of Alloys and Coatings for Advanced Gas Turbine Engines	To develop a suite of computational tools that will accelerate the creation and development of alloys and coatings for gas turbine engines. The computational, informatics-based suite should be capable of utilizing various material database formats, and be able to convert and integrate modeling and simulation tools with experimental data and existing materials databases to provide the foundation for optimal materials design and development.	LM Missiles and Fire Control (MFC)	John Fontana	john.c.fontana@lmco.com	407-356-3968
View Online	N162-129	Electrochemical Modeling of Anodic Metal-Rich Primers	Develop innovative models and analysis tools that support the maturation of metal-rich coatings, including their interaction with metallic and non-metallic surfaces and prediction of performance in the laboratory and naval operating environment.				
View Online	N162-130	Advanced Energy Sources and Controls for Metal Additive Manufacturing	To develop a new energy source or improve an existing energy source or integrate multiple energy sources with their control units into a metal Additive Manufacturing system to better characterize and control key aspects of the metal AM process prior to, during and after processing of each layer.	LM Aeronautics (Aero) LM Space Systems - SMD LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS)	Craig Owens Jesus Isarraras John Fontana Michael Weingarten	craig.l.owens@lmco.com jesus.isarraras@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com	817/777-6504 408-431-3519 407-356-3968 860-882-0343
View Online	N162-131	Platform for Developing Collective Expertise	Develop computational models and tools for rapid training and development of collective expertise.	LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Sheronda Nash	sheronda.nash@lmco.com	856-359-3965
View Online	N162-132	High Volume Packaging and Integration of MicroElectroMechanical Systems (MEMS) with Energetic Components	Develop and demonstrate packaging and assembly techniques that can be utilized for the integration of MicroElectroMechanical Systems (MEMS) with energetic materials and are scalable for high-volume production applications.	LM Space Systems - SMD LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jesus Isarraras John Fontana Sheronda Nash	jesus.isarraras@lmco.com john.c.fontana@lmco.com sheronda.nash@lmco.com	408-431-3519 407-356-3968 856-359-3965

View Online	N162-133	Autonomous Mobile Marine Meteorological Station	The objective is to develop an autonomous, mobile, marine meteorological station with the capability to launch radiosonde balloons for marine boundary layer characterization. The challenges of this development are stability of the platform for measurements, real-time data transmission, gas-handling, and unmanned surface vessel (USV) autonomy.				
View Online	N162-134	Composite/Meta-Materials for Multi-band Satellite Antenna Applications	Develop a prototype radome and multi-band (at least C and Ka bands) antenna system that features an ideal mix of traditional metallic and composite materials as well as candidate advanced composites and meta-materials to allow placement on aircraft carrier mast or superstructures and protection/relocation from jet blast.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Space Systems - Special Programs LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin Jeremy Schoos John Fontana Sheronda Nash	jeffrey.poulin@lmco.com jeremy.e.schoos@lmco.com john.c.fontana@lmco.com sheronda.nash@lmco.com	- 4087565436 407-356-3968 856-359-3965
View Online	N162-135	Shipboard Troposcatter	Develop troposcatter control algorithms and control software that can compensate for ship motion and can overcome the communications limitations imposed by Anti-Access Area Denial (A2AD) environments.	LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Sheronda Nash	sheronda.nash@lmco.com	856-359-3965
View Online	N162-136	Sustained Maintenance Planning Software	Develop innovative, predictive condition-based maintenance software to determine degradation and forecast production and refurbishment of hardware to reduce maintenance costs and increase operational availability.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Mission Systems and Training, Training and Logistics Solutions (MST TLS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin Joshua Kitain Sheronda Nash	jeffrey.poulin@lmco.com joshua.d.kitain@lmco.com sheronda.nash@lmco.com	- 4073061039 856-359-3965
View Online	AF162-001	Deployable Electronically Steered Apertures (ESAs) for Future Space Platforms	The objective of this work is to develop a low-cost, compactly folded aperture approach to replace traditional active phased array antennas for future satellite architectures.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Space Systems - Special Programs LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin Jeremy Schoos Sheronda Nash	jeffrey.poulin@lmco.com jeremy.e.schoos@lmco.com sheronda.nash@lmco.com	- 4087565436 856-359-3965
View Online	AF162-002	Instrumentation for passive sensing of diffusely modulated signatures	Develop hardware to advance imaging techniques for remotely sensing low level earth surface vibrations via detection of diffusely modulated light; enhance survivability from lab to field, improve ranges to hundreds of kilometers.	LM Space Systems - Special Programs LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeremy Schoos John Fontana Sheronda Nash	jeremy.e.schoos@lmco.com john.c.fontana@lmco.com sheronda.nash@lmco.com	4087565436 407-356-3968 856-359-3965
View Online	AF162-003	Standardized Interface for Satellite Ground System Integration Technologies	Develop a system/capability to make satellite ground system development/ integration easier and reusable across satellite programs.	LM Space Systems - Special Programs	Jeremy Schoos	jeremy.e.schoos@lmco.com	4087565436
View Online	AF162-004	Index, Export and Search Archived Data for Enterprise Ground Satellite Command and Control Systems from Multiple Sources	Develop techniques to index, export and search large volumes of archived data, across streams of telemetry and mission data and other data sources from multiple satellite missions in order to produce deep forensic analytics.	LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Michael Weingarten Sheronda Nash	michael.weingarten@lmco.com sheronda.nash@lmco.com	860-882-0343 856-359-3965
View Online	AF162-005	User Defined Operational Picture (UDOP) for Enterprise Ground Satellite Command and Control Systems from Multiple Sources	Develop a UDOP that brings multiple dissimilar operational systems into a common presentation level, for ease of use and reduction of training for the operators, in addition to a set of guidelines governing the implementation strategy of the UDOP.	LM Space Systems - ATC LM Mission Systems and Training, Under Sea Systems (MST USS)	Dawn Sisneros Michael Weingarten	Dawn.Sisneros@lmco.com michael.weingarten@lmco.com	303-379-3194 860-882-0343
View Online	AF162-006	Autonomous Satellite Ground Operations	Develop prototype for Next Generation Air Force Enterprise Ground System to support autonomous satellite operations.	LM Space Systems - ATC LM Space Systems - Special Programs LM Mission Systems and Training, Under Sea Systems (MST USS)	Dawn Sisneros Jeremy Schoos Michael Weingarten	Dawn.Sisneros@lmco.com jeremy.e.schoos@lmco.com michael.weingarten@lmco.com	303-379-3194 4087565436 860-882-0343
View Online	AF162-007	High-Efficiency Radiation-Hard Solar Array Interface to Spacecraft Power System	Develop concepts for a high efficiency, compact radiation hard interface between the solar array and the spacecraft power system.	LM Space Systems - SMD	Jesus Isarraras	jesus.isarraras@lmco.com	408-431-3519
View Online	AF162-008	Spacecraft Propellant Storage and Feed Systems	Develop and demonstrate decreased mass, volume and power requirements for spacecraft liquid chemical propellant storage and feed hardware.	LM Space Systems - Special Programs	Jeremy Schoos	jeremy.e.schoos@lmco.com	4087565436
View Online	AF162-009	Electric Propulsion for Dual Launch	Develop high-thrust solar electric propulsion technologies that enable/enhance mission capabilities and dual manifest launch opportunities for national security space assets.	LM Missiles and Fire Control (MFC)	John Fontana	john.c.fontana@lmco.com	407-356-3968
View Online	AF162-010	Flexible Electric Propulsion for Resilient Spacecraft	Develop low-cost, flexible solar electric propulsion technologies that enable/enhance resilient mission capabilities and disaggregated satellite architectures.	LM Space Systems - Special Programs	Jeremy Schoos	jeremy.e.schoos@lmco.com	4087565436
View Online	AF162-D001	Mitigation of Small Unmanned Aircraft Systems (sUAS) Threats	Develop and demonstrate a cost effective system or sub-system that can detect, identify and manage or defeat sUAS. Management or defeat of sUAS range from effects that deter sUAS approach and entry into prohibited areas to kinetic and non-kinetic effects that destructively defeat sUAS while minimizing collateral effect to surrounding assets.	LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	John Fontana Michael Weingarten Sheronda Nash	john.c.fontana@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	407-356-3968 860-882-0343 856-359-3965
View Online	AF162-D002	Commercial Space Catalog	Develop and demonstrate the ability of a global network of commercial and/or university telescopes to collect satellite tracking data to build and maintain, at a minimum, a near-GEO (geo-synchronous orbit) catalog, with the goal of a deep-space catalog, either of which would have a similar or better accuracy as the US Space Surveillance Network (SSN). The project shall serve as a path finder in assessing the feasibility and affordability of developing and maintaining a commercially developed catalog as a va	LM Space Systems - ATC LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Dawn Sisneros Sheronda Nash	Dawn.Sisneros@lmco.com sheronda.nash@lmco.com	303-379-3194 856-359-3965
View Online	AF162-D003	Autonomous Robot for Unmanned Air Vehicle Operations	Develop a drop-in robotic system or device to rapidly convert a variety of traditionally manned aircraft to robotically piloted, autonomous aircraft. This robotic system will operate the aircraft (e.g. observe gauges, operate controls, etc.) similar to a human pilot and will not require any modifications to the aircraft.	LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS)	John Fontana Michael Weingarten	john.c.fontana@lmco.com michael.weingarten@lmco.com	407-356-3968 860-882-0343
View Online	AF162-D004	Modern Command Center for Missile Field Operations	Develop and apply modern command center technology to provide capabilities for collaborative and efficient conduct of ICBM operations, including status monitoring, maintenance, security and missile launch.	LM Space Systems - SMD LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jesus Isarraras John Fontana Michael Weingarten Sheronda Nash	jesus.isarraras@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	408-431-3519 407-356-3968 860-882-0343 856-359-3965
View Online	SB162-001	Real-time Assessment of Antimicrobial Concentrations for Personalized Treatment of Infectious Diseases	Develop a real-time device capable of measuring small-molecule antibiotic drug concentrations from a small quantity of blood in less than 30 minutes. The application of this technology would be improved and personalized antibiotic administration, which would diminish the likelihood of the development of antimicrobial resistance.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky	Jeffrey Poulin	jeffrey.poulin@lmco.com	-
View Online	SB162-002	Point-of-care Monitoring of the Host-Pathogen Interaction during Infection	Develop point-of-care technologies to monitor and characterize host-pathogen interactions during acute severe infection.				
View Online	SB162-003	Next Generation Research Tools for Understanding Human Social Systems	Develop tools to support innovation in advancing best practice research methods and capabilities for the social, behavioral, and economic (SBE) sciences, which include, but not limited to: analysis software, workflow systems, statistical packages, experimental platforms, and others.	LM Missiles and Fire Control (MFC)	John Fontana	john.c.fontana@lmco.com	407-356-3968

View Online	SB162-004	Secure Messaging Platform	Create a secure messaging and transaction platform that separates the message creation, from the transfer (transport) and reception of the message using a decentralized messaging backbone to allow anyone anywhere the ability to send a secure message or conduct other transactions across multiple channels traceable in a decentralized ledger.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin John Fontana Sheronda Nash	jeffrey.poulin@lmco.com john.c.fontana@lmco.com sheronda.nash@lmco.com	- 407-356-3968 856-359-3965
View Online	SB162-005	Managing Emergent Behavior of Interacting Autonomous Systems	Develop meta-heuristic algorithms for the management of interacting autonomous agents by leveraging insights from highly resilient biological systems.	LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	John Fontana Michael Weingarten Sheronda Nash	john.c.fontana@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	407-356-3968 860-882-0343 856-359-3965
View Online	SB162-006	Innovative Technologies for High Power Amplification at THz frequencies	Investigate and demonstrate an innovative and radical approach capable of revolutionizing technologies for high power amplification at terahertz (THz) frequencies.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin John Fontana Sheronda Nash	jeffrey.poulin@lmco.com john.c.fontana@lmco.com sheronda.nash@lmco.com	- 407-356-3968 856-359-3965
View Online	SB162-007	Integrated Interface Layer for Micromagnetics and RF Computational Engines	Create a Graphical User Interface (GUI) with integrated pre- and post-processors that interface with efficient and accurate nonlinear micro-magnetic computation engines and allow rapid virtual prototyping of nonlinear magnetic components within standard RF design tools.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC)	Jeffrey Poulin John Fontana	jeffrey.poulin@lmco.com john.c.fontana@lmco.com	- 407-356-3968
View Online	SB162-008	Distributed Coherent Communications	Establish practical approaches to achieve distributed coherent communications between two disaggregated groups of RF communications nodes.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin John Fontana Sheronda Nash	jeffrey.poulin@lmco.com john.c.fontana@lmco.com sheronda.nash@lmco.com	- 407-356-3968 856-359-3965
View Online	SB162-009	Software/Analytics Exploiting Commercial Satellite Imagery	Develop and demonstrate innovative methods to for leveraging commercially-available satellite imagery data for use in national security applications.	LM Space Systems - ATC LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Dawn Sisneros John Fontana Sheronda Nash	Dawn.Sisneros@lmco.com john.c.fontana@lmco.com sheronda.nash@lmco.com	303-379-3194 407-356-3968 856-359-3965
View Online	SB162-010	Near-Photon-Counting, High Dynamic Range, Passive Vision Detector Arrays	Develop low-light passive imaging sensor technologies based on Linear-mode (Lm) and/or Geiger-mode (Gm) avalanche photodiode (APD) technologies.	LM Space Systems - SMD LM Missiles and Fire Control (MFC)	Jesus Isarraras John Fontana	jesus.isarraras@lmco.com john.c.fontana@lmco.com	408-431-3519 407-356-3968
View Online	SB162-011	Distributed, Large Scale Spectrum Measurement and Analysis	Develop and demonstrate innovative methods to collect, process, and analyze RF spectrum measurements made from a large number (50 or greater) of mobile collection platforms (at low altitude and/or close to the emitters) to obtain useful information on spectrum use and activities.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin John Fontana Sheronda Nash	jeffrey.poulin@lmco.com john.c.fontana@lmco.com sheronda.nash@lmco.com	- 407-356-3968 856-359-3965
View Online	SB162-012	Complementary Piezo Energy Harvesting for Small Satellites in Eclipse	Demonstrate a piezo energy harvesting system (PEH) for a cubesat or similar small satellite platform that complements existing photovoltaic elements, trickle-charging the spacecrafts batteries in periods of eclipse when photovoltaic output is low, thereby reducing the required spacecraft battery capacity.	LM Missiles and Fire Control (MFC)	John Fontana	john.c.fontana@lmco.com	407-356-3968
View Online	SB162-013	Telemetry Buoy - TM Collection System	Identify, develop and demonstrate new, inexpensive, user-friendly methods for autonomous telemetry (TM) collection with improved link margin and improved redundancy from flight test assets traversing large open-ocean distances.	LM Mission Systems and Training, Under Sea Systems (MST USS)	Michael Weingarten	michael.weingarten@lmco.com	860-882-0343
View Online	SB162-014	Light-weight and Low Cost Composite Cryotank	Develop high-performance, lightweight composite cryogenic propellant tanks suitable for use on expendable and reusable space access vehicles and hypersonic aircraft.	LM Space Systems - SMD	Jesus Isarraras	jesus.isarraras@lmco.com	408-431-3519
View Online	SB162-015	Autonomous Detection of Near-Surface Marine Mammals	Develop and demonstrate a reliable autonomous methodology to detect, localize and identify presence of marine mammals from transiting surface ships at ranges up to 1,000 yards. Investigate and validate the necessary combination of sensors, software and computing to achieve this desired objective.	LM Space Systems - SMD LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS)	Jesus Isarraras John Fontana Michael Weingarten	jesus.isarraras@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com	408-431-3519 407-356-3968 860-882-0343
View Online	DLA162-001	Sensor and Material Handling Equipment Technology to Improve Warehouse Performance and Safety	Implement warehouse technology strategy employing automated equipment and related systems best practices which enable the prevention and reduction of employee exposure to physical injuries resulting from Material Handling Equipment (MHE) and/or Powered Industrial Truck (PIT) vehicle collisions, falling objects, demanding and/or extreme repetitive motion activities. Introduce innovative technology and automation practices for the DLA Disposition Services warehouse environment utilizing emerging technologies such as sensor technology, robotics, and/or other automation that reduces fatigue and exposure to work tasks that have the potential to result in lost time, injuries, warehouse equipment damage, or materiel losses.	LM Mission Systems and Training, Under Sea Systems (MST USS)	Michael Weingarten	michael.weingarten@lmco.com	860-882-0343
View Online	DLA162-002	: DLA Disposition Services Mobile Offices for Disposal Services and Customer Support	To design, prototype, and test stand-alone mobile office vehicles that are fully equipped with a wide-range of communication and information technologies and capable of providing disposal services at the warfighters location.				
View Online	DLA162-003	DLA Disposition Services Mobile Solutions for Property Photographs and Automatic Uploads to an Automated Information System (AIS)	To design, develop, and test a mobile application (app) that takes photos and automatically upload the photos into an existing website.	LM Mission Systems and Training, Under Sea Systems (MST USS)	Michael Weingarten	michael.weingarten@lmco.com	860-882-0343
View Online	DMEA162-001	High-brilliance 9keV X-ray Source	Develop a high-flux 9keV x-ray source with a spot size larger than 10um				
View Online	DTRA162-001	Machine learning for standoff detection of Special Nuclear Material (SNM)	Develop a learning algorithm to use in conjunction with current spectral algorithms.	LM Space Systems - Special Programs LM Missiles and Fire Control (MFC)	Jeremy Schoos John Fontana	jeremy.e.schoos@lmco.com john.c.fontana@lmco.com	4087565436 407-356-3968
View Online	DTRA162-002	Bioinformatics: Data Integration for Biomonitoring Applications	The present topic seeks computational approaches that mine publicly available microbiome data to identify changes in natural soil-borne communities which can be uniquely and predictably associated with environmental presence of ionizing radiation, radioisotopes including those in the actinide series, heavy metals, and/or process chemicals associated with nuclear activities.				
View Online	DTRA162-003	Alternative Signature Detectors for Long Range Nuclear Material Identification	To develop a method for identifying nuclear materials at distances over 100m through the detection of alternative signatures.	LM Space Systems - Special Programs LM Missiles and Fire Control (MFC)	Jeremy Schoos John Fontana	jeremy.e.schoos@lmco.com john.c.fontana@lmco.com	4087565436 407-356-3968
View Online	DTRA162-004	Novel approaches for supporting plan recognition	DTRA is seeking research in the area of plan recognition from unstructured text sources.				
View Online	DTRA162-005	Data-Driven Technology Discovery Methodologies	Develop sustainable and scalable data-driven methodologies to discover emerging or disruptive technologies before they have an innovative impact on WMD and the CWMD mission space. Employing discovery methodologies will enable continuous horizon scanning, and drive technology forecast analysis and reporting to assist the CWMD community of interest (CoI) in avoiding technological surprise.	LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	John Fontana Sheronda Nash	john.c.fontana@lmco.com sheronda.nash@lmco.com	407-356-3968 856-359-3965

View Online	DTRA162-006	Advanced Solutions for Radiation Susceptibility Analysis & Prediction	Support the development of radiation susceptibility analysis and prediction capabilities in defense systems to reduce the design risks, schedules and overhead while resulting in significant savings in costs and high reliability radiation tolerant microelectronics for DoD missions.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Space Systems - SMD LM Missiles and Fire Control (MFC)	Jeffrey Poulin Jesus Isarraras John Fontana	jeffrey.poulin@lmco.com jesus.isarraras@lmco.com john.c.fontana@lmco.com	- 408-431-3519 407-356-3968
View Online	DTRA162-007	Portable, Fieldable, Non- Helium-3 Based Neutron Multiplicity Counter	To develop a portable, fieldable neutron multiplicity counter based on non-Helium-3 neutron detection technology. A Helium-3 replacement medium would have similar or better performance in the key areas of neutron detection efficiency and gamma-rejection while minimizing dead-time and double-pulsing. A new medium should also permit comparable or better size, weight, and power consumption to existing Helium-3-based systems.				
View Online	MDA16-001	System-level Post Intercept Assessment	Develop innovative techniques to provide greater robustness assessing success of intercept across multiple sensors and phenomenologies.	LM Space Systems - SMD LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jesus Isarraras Michael Weingarten Sheronda Nash	jesus.isarraras@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	408-431-3519 860-882-0343 856-359-3965
View Online	MDA16-002	High-Resolution Measurement Techniques for High Explosive Internal Pressure and Temperature for Lethality Assessment	Develop a non-invasive, innovative, and cost-effective methodology for high-resolution measurement of the internal temperatures and pressures of an energetic material during a range of reactive events, from, and including, deflagration to detonation.	LM Missiles and Fire Control (MFC)	John Fontana	john.c.fontana@lmco.com	407-356-3968
View Online	MDA16-003	Inline Environment Truth Generation	Develop an innovative, low-cost approach to facilitate the inline generation of environments likely to be encountered by missile defense sensors and weapon systems.	LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Sheronda Nash	sheronda.nash@lmco.com	856-359-3965
View Online	MDA16-004	Chemical and Physical Mechanism Processes for Propulsion Related Signature Events	Extend capabilities of existing, propulsion-related signature tools to characterize emission phenomena over a broad portion of the electromagnetic spectrum, from ultraviolet (UV) through the long-wave infrared (LWIR).	LM Space Systems - SMD LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jesus Isarraras Sheronda Nash	jesus.isarraras@lmco.com sheronda.nash@lmco.com	408-431-3519 856-359-3965
View Online	MDA16-005	Cyber Health and Status Data Collection	Develop new and novel methods that not only collect the correct cyber data from modeling and simulation (M&S) federated and non-federated simulations, but help identify what data should be collected and how it should be collected for analysis and protection requirements.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Training and Logistics Solutions (MST TLS) LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin John Fontana Joshua Kitain Michael Weingarten Sheronda Nash	jeffrey.poulin@lmco.com john.c.fontana@lmco.com joshua.d.kitain@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	- 407-356-3968 4073061039 860-882-0343 856-359-3965
View Online	MDA16-006	Innovative Ways to Streamline Scenario Generation Across a System of Systems M&S Enterprise	Develop a set of capabilities that significantly improves the quality and timeliness of scenario generation and streamlines the development, integration, and validation of those scenarios for System of Systems (SoS) integrated system-level simulations.	LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Michael Weingarten Sheronda Nash	michael.weingarten@lmco.com sheronda.nash@lmco.com	860-882-0343 856-359-3965
View Online	MDA16-007	Intercept Debris Modeling for Non Hit-to-Kill Missile Engagements	Extend fast-running intercept debris initial condition modeling to address debris from non hit-to-kill (NHTK) missile engagements.	LM Space Systems - SMD LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jesus Isarraras John Fontana Sheronda Nash	jesus.isarraras@lmco.com john.c.fontana@lmco.com sheronda.nash@lmco.com	408-431-3519 407-356-3968 856-359-3965
View Online	MDA16-008	Modeling of the Attenuation Effects of the Ionosphere and Troposphere for Radio Frequency Application	Develop and demonstrate methods to enhance the accuracy of ionosphere models across missile defense application Radio Frequency (RF) bands to address lowering the probability of false alarm, the effect on signal to noise ratio, and the effect on track accuracy.	LM Space Systems - SMD LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jesus Isarraras Sheronda Nash	jesus.isarraras@lmco.com sheronda.nash@lmco.com	408-431-3519 856-359-3965
View Online	MDA16-009	Modeling of the Attenuation Effects of the Atmosphere for IR/VIS Application	Develop enhanced models for atmospheric (troposphere, ionosphere, etc.) effects on light propagating in different visible (Vis) /infrared (IR) frequency bands, for use with a scene generation tool to help create Vis/IR scenes in real time.	LM Space Systems - SMD LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jesus Isarraras Sheronda Nash	jesus.isarraras@lmco.com sheronda.nash@lmco.com	408-431-3519 856-359-3965
View Online	MDA16-010	High Performance Actuators for Solid Propulsion Control Systems	Develop and demonstrate innovative architectures and/or high temperature electronics for increasing the temperature capability of actuators used with proportionally controlled valves/thrusters.	LM Space Systems - SMD	Jesus Isarraras	jesus.isarraras@lmco.com	408-431-3519
View Online	MDA16-011	Radiation Hardened Interceptor Seeker Sensor Technologies	Design, develop, and demonstrate high performance long-wave infrared (LWIR) sensor technologies for interceptor systems that can resist or ameliorate the deleterious effects of radiation in the near-Earth orbital environment.	LM Space Systems - Special Programs LM Space Systems - SMD LM Missiles and Fire Control (MFC)	Jeremy Schoos Jesus Isarraras John Fontana	jeremy.e.schoos@lmco.com jesus.isarraras@lmco.com john.c.fontana@lmco.com	4087565436 408-431-3519 407-356-3968
View Online	MDA16-012	Software Enhancements to Improve Inertial Measurement Unit Performance	Develop and demonstrate innovative approaches for advanced and adaptive software that enhances any Inertial Measurement Units (IMUs) long duration performance through severe environments. The expectation is to increase IMU accuracy by reducing sensor error accumulation.	LM Aeronautics (Aero) LM Space Systems - Special Programs LM Space Systems - SMD LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Craig Owens Jeremy Schoos Jesus Isarraras John Fontana Sheronda Nash	craig.l.owens@lmco.com jeremy.e.schoos@lmco.com jesus.isarraras@lmco.com john.c.fontana@lmco.com sheronda.nash@lmco.com	817/777-6504 4087565436 408-431-3519 407-356-3968 856-359-3965
View Online	MDA16-013	Additive Manufacturing for Affordable Missile Defense	Leverage advancements in additive manufacturing technologies to reduce cost and/or shorten delivery lead times of non-critical parts for missile defense applications, including missiles, kill vehicles, sensors, and radars.	LM Mission Systems and Training, Ship and Aviation Systems (MST SAS) and LM Sikorsky LM Space Systems - SMD LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Under Sea Systems (MST USS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jeffrey Poulin Jesus Isarraras John Fontana Michael Weingarten Sheronda Nash	jeffrey.poulin@lmco.com jesus.isarraras@lmco.com john.c.fontana@lmco.com michael.weingarten@lmco.com sheronda.nash@lmco.com	- 408-431-3519 407-356-3968 860-882-0343 856-359-3965
View Online	MDA16-014	Special Tooling and Processes for Repeatable Adhesive Application	Develop application process(es) for applying Liquid Locking Compounds (LLCs) used in missile production and deliver a process solution along with associated tooling to enable reproducible application of LLC for missile components.	LM Space Systems - SMD LM Missiles and Fire Control (MFC)	Jesus Isarraras John Fontana	jesus.isarraras@lmco.com john.c.fontana@lmco.com	408-431-3519 407-356-3968
View Online	MDA16-015	Develop a Repeatable Manufacturing Process for Aerospace Grade Aluminum Alloy Propellant Tanks	Develop and demonstrate a manufacturing process that consistently reproduces an ultra-lightweight propellant tank design from aerospace grade aluminum alloys (e.g. Aluminum 2219, ultra-lightweight aluminum alloy, etc.).	LM Space Systems - ATC LM Space Systems - SMD	Dawn Sisneros Jesus Isarraras	Dawn.Sisneros@lmco.com jesus.isarraras@lmco.com	303-379-3194 408-431-3519
View Online	MDA16-016	Aft Looking Spectrometer for Plume Characterization and Waking on Re-entry	Develop a spectrometer that can be mounted on the aft closure of a Re-entry Vehicle (RV) to observe re-entry waking or on the side of a booster to collect plume spectra.	LM Space Systems - SMD LM Missiles and Fire Control (MFC)	Jesus Isarraras John Fontana	jesus.isarraras@lmco.com john.c.fontana@lmco.com	408-431-3519 407-356-3968
View Online	MDA16-017	Sub-Scale Fly Along Sensor Package	Develop an innovative suite of miniaturized sensors that can be deployed from current Associated Object (AO) canisters flown on missile test targets and can be used to collect data on the target scene.	LM Space Systems - SMD LM Missiles and Fire Control (MFC)	Jesus Isarraras John Fontana	jesus.isarraras@lmco.com john.c.fontana@lmco.com	408-431-3519 407-356-3968
View Online	MDA16-018	Optical Signature Modeling of Transmissive Materials	This effort seeks to develop computational modeling methodologies that can achieve better accuracy than currently available and develop optical property measurement techniques that provide accurate measurement of the properties desired by computational modeling methodologies.	LM Space Systems - SMD LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jesus Isarraras John Fontana Sheronda Nash	jesus.isarraras@lmco.com john.c.fontana@lmco.com sheronda.nash@lmco.com	408-431-3519 407-356-3968 856-359-3965
View Online	MDA16-019	Modeling of Complex Endo-atmospheric Wakes	Develop an anchored approach to modeling infrared (IR) and/or radio-frequency (RF) re-entry wakes produced by re-entry vehicles (RVs) and RV associated spent boosters and flight hardware in high dynamic pressure and angle-of-attack (HDAOA) environments.	LM Space Systems - SMD LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Jesus Isarraras Sheronda Nash	jesus.isarraras@lmco.com sheronda.nash@lmco.com	408-431-3519 856-359-3965

View Online	OSD162-001	Advanced Approach to Analyzing Architectures	Develop an approach and demonstrate the ability for operators to design, test, and monitor a Command, Control, Communications, Computer, and Cyber Systems (C5) architecture and assess its performance with minimal training and DoD architectural experience.	LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	John Fontana Sheronda Nash	john.c.fontana@lmco.com sheronda.nash@lmco.com	407-356-3968 856-359-3965
View Online	OSD162-002	Large Caliber Steel Cartridge Case	Develop a manufacturing technique that economically manufactures large caliber steel cartridge cases within required dimensional and mechanical parameters.				
View Online	OSD162-003X	Augmented Reality User Interfaces for Tactical Drones	Design and fabricate an Augmented Reality (AR) user interface for tactical air and ground vehicles that demonstrates minimal formal Soldier training, embedded Soldier training, and minimal Soldier cognitive burden during semi-autonomous ground and air tactical vehicle operations for acquiring image products, performing area reconnaissance, and performing remote sensing of airborne chemical, biological radiological, or nuclear toxins.	LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Training and Logistics Solutions (MST TLS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	John Fontana Joshua Kitain Sheronda Nash	john.c.fontana@lmco.com joshua.d.kitain@lmco.com sheronda.nash@lmco.com	407-356-3968 4073061039 856-359-3965
View Online	OSD162-004X	Augmented Reality Training for Dismounted Soldiers	Design and fabricate an integrated Augmented Reality system for use by Dismounted Soldiers that demonstrate high levels of immersion in live indoor and outdoor environments and demonstrate future interoperability in both single and multiplayer (collective) configurations with evolving Synthetic Training Environment (STE).	LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Training and Logistics Solutions (MST TLS)	John Fontana Joshua Kitain	john.c.fontana@lmco.com joshua.d.kitain@lmco.com	407-356-3968 4073061039
View Online	OSD162-005X	Accurate Situational Awareness using Augmented Reality Technology	To provide an enhanced, real-world experimentation and prototype capability to Soldiers that are learning to use sensors, sensor imagery, geolocation information, Situational Awareness (SA) and command and control information in new and novel ways through the use of virtual reality, augmented reality, and augmented virtuality.	LM Space Systems - ATC LM Missiles and Fire Control (MFC) LM Mission Systems and Training, Training and Logistics Solutions (MST TLS) LM Mission Systems and Training, Integrated Warfare Systems & Sensors (MST IWSS)	Dawn Sisneros John Fontana Joshua Kitain Sheronda Nash	Dawn.Sisneros@lmco.com john.c.fontana@lmco.com joshua.d.kitain@lmco.com sheronda.nash@lmco.com	303-379-3194 407-356-3968 4073061039 856-359-3965