

Sunday, 3 February 2019		
1630 - 2100	Registration	
1830	Super Bowl Party	
Monday, 4 February 2019		
0700 - 0745	Speaker Breakfast for Monday's Presenters	
0700 - 0830	Attendee Continental Breakfast	
0700 - 1715	Registration Open	
	Track One	Track Two
	Special Topics Session Chair: Mr. Roy Ballard, Air Force Research Laboratory	Special Topics Session Chair: Dr. Gary Somers, Raytheon Company
0800 - 0805	Welcome & Announcements	
0805 - 0850	PACOM: Advanced, Ground-Based Threats to Air Operations U.S. Air Force	The Assault Breaker II Initiative Mr. Thomas Browning, Defense Advanced Research Projects Agency
0850 - 0935	Foreign Air-to-Air Missile Threat Briefing Lt Jeffrey Christensen, National Air and Space Intelligence Center	An Overview of Hypersonic Systems Mr. Mark Gustafson, Raytheon Company
0935 - 1015	Morning Break	
	Track One	Track Two
	Utilizing Space as a Force Enhancer or Force Applier Session Chairs: Dr. Gary Somers, Raytheon Company & Mr. John Warnke, Lockheed Martin Corporation	Fire Control Platform Capabilities Session Chairs: Mr. Mike Fitzpatrick, Georgia Tech Research Institute & Dr. Stephen Woodall, IERUS Technologies Inc.
1015 - 1020	Session Introduction	
1020 - 1040	Space Based Sensors: The Ultimate High Ground Advantage for Active & Passive Missile Defense Ms. Terry Cassis, Lockheed Martin Corporation	Upgrading the Ground Based Radar-Prototype at the Reagan Test Site in Support of Advancing National Defense *Mr. Daniel Oberlander, MIT Lincoln Laboratory
1040 - 1100	Prototype On-Board Image Pre-Filters for Nano-Satellites Dr. David Noever, PeopleTec, Inc.	Summary of Gun Computer System MK 160 Capability Improvements Mr. Thomas Wimberly, Naval Surface Warfare Center Dahlgren Division

1100 - 1120	Combat System Engineering the Space Force Mr. Thomas Pugh, Pugh Associates, LLC	Extended Range Maritime Targeting Dr. Michael Webb, Raytheon Space and Airborne Systems
1120 - 1140	Course of Action Modeling and Visualization in Augmented Space (CAMVAS) Mr. James Curbo & Mr. Arthur Tucker, Johns Hopkins University Applied Physics Laboratory	Air and Missile Defense In-Flight Alignment Impact on Handover Error and Considerations for Long Range ABT Defense *Mr. Steven Sanders, U.S. Army Aviation and Missile Research, Development, and Engineering Center
1140 - 1200	Time Critical Targeting Dr. Gary Somers, Raytheon Company	Extended Range Cannon Artillery: Fire Control and Projectile Telemetry Test Results Mr. Robinson Cruz, U.S. Army Armament Research, Development and Engineering Center
1200 - 1315	Attendee Networking Lunch Sponsored by Lockheed Martin Corporation Guests of Attendees may purchase tickets for \$15.00 at the NFCS Desk	
	Track One	Track Two
	Kill Chain & Distributed Lethality Session Chairs: Mr. Douglas Ousborne, Johns Hopkins University Applied Physics Laboratory & Mr. Ralph Tillinghast, U.S. Army Armament Research, Development & Engineering Center	Rapid Transition of New Technology to the Warfighter Session Chairs: Mr. David Cox, U.S. Army Space & Missile Defense Command/ Army Forces Strategic Command & Mr. Mark Jones, Marine Corps Systems Command
1315 - 1320	Session Introduction	Session Introduction
1320 - 1340	Joint Theater-Level Intelligence, Surveillance, and Reconnaissance (JTISR) Targeting Scenario 7 Study – Kill Chain Improvements to Conduct Responsive Fires MAJ John Barlow, Jr., U.S. Army Training and Doctrine Command Analysis Center	Rapid Prototyping Efforts for Mission Planning Mr. Louis DeBenedetto, Johns Hopkins University Applied Physics Laboratory
1340 - 1400	Determining Threat Intent from Missile Motion *Mr. Michael Benton, MIT Lincoln Laboratory	Enhanced Target Acquisition System Mr. Justin Novak, U.S. Army Space and Missile Defense Command, Army Forces Strategic Command
1400 - 1420	Weapons and Radar Advanced Decision Support Dr. Jeremy Reed, Georgia Tech Research Institute	Accelerated Integration to Counter Emerging Threats (AICET) Dr. Reid VanderSchaaf, Torch Technologies, Inc.
1420 - 1440	Distributed Lethality Targeting Tradeoffs Dr. Reid Smith, Johns Hopkins University Applied Physics Laboratory	Hypervelocity Gun Weapon System Live-Fire Results Dr. Stephen Clow, Northrop Grumman Corporation

1440 - 1500	Evolving from Linear Kill Chains to Kill Webs: Exploiting Synergies Across the Electromagnetic Spectrum Mr. Lee Shaw, Northrop Grumman Mission Systems	Projectile Tracking System Design and Path to Fielding Mr. David Musgrave, U.S. Army Armament Research, Development and Engineering Center
1500 - 1530	Afternoon Break	
	Track One	Track Two
	Kill Chain & Distributed Lethality, cont.	Unmanned & Autonomous Systems (Sensors, Weapons & Platforms, including Counter UAS) Session Chairs: Dr. Shawn Ohler, MIT Lincoln Laboratory & Mr. LeRoy Willemsen, Air Force Research Laboratory
1530 - 1535	Announcements	Session Introduction
1535 - 1555	Challenge Based Learning: Prioritized Actionable Kill-Chain Generation *Mr. Matthew Turing, Naval Air System Command	ELINT Operational Considerations from Unmanned Airborne Systems Dr. Charles Cerny, Air Force Research Laboratory
1555 - 1615	Virtual Mission Crew Station Mr. Stephen Waugh, Johns Hopkins University Applied Physics Laboratory	Precision Fire Control Radar for Detection and Tracking of Small Airborne Targets Mr. Timothy Graham, SRC, Inc.
1615 - 1635	Wideband ASuW Multi-Platform Data Collection System Mr. Omar Ramos, Naval Air Warfare Center Weapons Division	Countering Unmanned Aerial Systems in an Urban Environment Ms. Virginia Goodwin, MIT Lincoln Laboratory
1635 - 1655	Kill Chain Modernization for the AMD Enterprise Mr. Keith Godwin, Torch Technologies, Inc.	Guided Unmanned Aerial Recon and Defeat (GUARD) Lite Mr. Andre Aklian, U.S. Army Research, Development and Engineering Command, Armament Research, Development and Engineering Center
1655 - 1715	Containment-Based Advanced Fire Control: A Machine Learning Approach for Estimating the Lethal Divert Capability of a Missile for both Engagement Planning and Engagement Execution Mr. Scott Pimm, Torch Technologies, Inc.	Geolocation of Low-Power RF Emitters from a Small UAS Dr. David de Schweinitz, Lockheed Martin Corporation
Tuesday, 5 February 2019		
0700 - 0830	Attendee Continental Breakfast Sponsored by The Boeing Company	

0700 - 1830	Registration Open
1700 - 1830	Networking Reception Sponsored by Raytheon Company
	Plenary Session Session Chairs: Mr. David Cox, U.S. Army Space & Missile Defense Command/Army Forces Strategic Command & Mr. Ralph Tillinghast, U.S. Army Armament Research, Development & Engineering Center
0800 - 0815	Opening Remarks by Mr. David Cox & Mr. Ralph Tillinghast Posting of the Colors: Celebration High School Air Force Junior ROTC Color Guard Plenary Session Moderator: Mr. Richard De Fatta Director, Future Warfare Center U.S. Army Space & Missile Defense Command/Army Forces Strategic Command
0815 - 0855	Keynote: LTG James Dickinson Commanding General, U.S. Army Space & Missile Defense Command/Army Forces Strategic Command
0855 - 0930	Air Force: Lt. Gen. Arnold Bunch Military Deputy, Office of the Assistant Secretary of the Air Force for Acquisition, Technology & Logistics
0930 - 1005	Missile Defense Agency: Mr. David McNeill, SES Chief Engineer, Engineering Directorate, Missile Defense Agency
1005 - 1035	Mid-Morning Break
1035 - 1110	Navy: RADM James Kilby Director, Warfare Integration, Office of the Chief of Naval Operations, N9I
1110 - 1145	OUSD (R&E): Mr. James Faist, SES Director of Defense Research & Engineering for Advanced Capabilities, Office of the Under Secretary of Defense for Research & Engineering
1145 - 1200	Awards Ceremony Dr. Gary Somers, Raytheon Company & Mr. Ralph Tillinghast, U.S. Army Armament Research, Development & Engineering Center
1200 - 1315	Attendee Networking Lunch Sponsored by Northrop Grumman Corporation Guests of Attendees may purchase tickets for \$15.00 at the NFCS Desk
	Operators Panel Session Chairs: Ms. Paige Rumberg, Naval Surface & Mine Warfighting Development Center & Mr. Ralph Tillinghast, U.S. Army Armament Research, Development & Engineering Center

1315 - 1415	Joint Operator's Perspective on Integrated Fire Control <i>This panel will provide a walkthrough of IFC lessons learned from Virtual Warfare Center (VWC) events. Navy, Air Force, and Army uniformed representatives who participated in various VWC campaigns will provide a guided discussion of these joint IFC campaigns, will provide operational lessons learned, and will provide perspectives on employment considerations for IFC technologies (both in-service and developmental).</i>	
1415 - 1500	Mr. Michael Roberts Director, Development and Integration, Program Executive Office, Integrated Warfare Systems	
1500 - 1530	Afternoon Break	
	Poster Session & Exhibit Showcase & Reception Poster Session Chairs: Mr. Jesse Hodge, Naval Air Systems Command & Mr. John Warnke, Lockheed Martin Corporation	
1530 - 1700	All posters will be co-located together	
1700 - 1830	Networking Reception Sponsored by Raytheon Company	
Wednesday, 6 February 2019		
0700 - 0745	Speaker Breakfast for Wednesday's Presenters Sponsored by The Boeing Company	
0700 - 0830	Attendee Continental Breakfast	
0700 - 1715	Registration Open	
	Track One	Track Two
	Combat ID Session Chairs: Mr. Roy Ballard, Air Force Research Laboratory; Mr. William Maselko, Northrop Grumman Mission Systems & Dr. Karla Priestersbach, Missile Defense Agency	Live, Virtual, & Constructive Modeling & Simulation Session Chairs: Ms. Keri Bailey, Air Force Research Laboratory & Mr. David Cox, U.S. Army Space & Missile Defense Command/ Army Forces Strategic Command
0800 - 0805	Session Introduction	Session Introduction
0805 - 0825	Analog vs. Digital Radar Transmitter Discrimination Using Differential Time Domain Distinct Native Attribute (DTD-DNA) Fingerprinting *Dr. Clay Dubendorfer, Air Force Institute of Technology	Injecting CEMA Effects into Simulations Mr. John Bland, U. S. Army Aviation and Missile Research Development and Engineering Center
0825 - 0845	Low Rank Shared Dictionary Learning as Applied to Vibrometry-Based Target Classification Mr. Daniel Stouch, Charles River Analytics	Decisive Sting - Integrated Test, Training, Experimentation and Rehearsal (TTE&R) Mr. Marcus Makarehchi, Naval Air Systems Command

0845 - 0905	Transfer Learning for Navy Classification Problems *Mr. Sean Shepherd, Naval Air Warfare Center Weapons Division	Earth Is Not Flat; Safety and Impact Projections using Topographical Maps Mr. Michael Wright, U.S. Army Armament Research, Development and Engineering Center
0905 - 0925	Compact ATR Sustainable Environment (CASE) Mr. Mark Berlin, Raytheon Space and Airborne Systems	Future of Cyber Wargaming Mr. Ambrose Kam, Lockheed Martin Rotary and Mission Systems
0925 - 0945	AFRL Combat ID Projects under PE 63742F Mr. Marc Masquelier, Air Force Research Laboratory	Integrated Weapons Environment for Analysis (IWEA): KE & DE Combined Effects *Ms. Judith Sherrill, Air Force Research Laboratory
0945 - 1015	Mid-Morning Break	
	Track One	Track Two
	Combat ID, cont.	Weapons, Munitions, & Engagement Alternatives Session Chairs: Ms. Keri Bailey, Air Force Research Laboratory & Mr. Mark Jones, Marine Corps Systems Command
1015 - 1020	Announcements	Session Introduction
1020 - 1040	DEVIANT Phase 2: Real-Time SAR, GMTI, Tracking, and ATR Mr. David Oostdyk, Georgia Tech Research Institute	Mark (MK) 41 Vertical Launching System (VLS) Overview Mr. Wayne Dietel, Pugh Associates, LLC
1040 - 1100	Using Machine Learning for Primary Object Designation before Complete Discrimination Results are Available Mr. Ronald Slaga, Jr., Raytheon Company	Calculating Safe Separation Distance for Swarming Weapons Mr. David Hogg, Air Force Research Laboratory
1100 - 1120	Deep Learning/Machine Learning Challenges Dr. Karla Priestersbach, Missile Defense Agency	Hit-to-Kill Salvos Against Raids of Highly Maneuverable Targets Mr. Robert Fry, Johns Hopkins University Applied Physics Laboratory
1120 - 1140	Improving Fire Control while using Multiple CID Techniques Dr. Pierre Jean-Laurent, Raytheon Company	An Efficient Procedure for Setting Top-Level Parameters for an Interceptor Missile Mr. Joel Alpert, MIT Lincoln Laboratory
1140 - 1200	Induced Perceptual Bias in Support of Deep Learning for Efficient Combat Identification from Space Dr. Wes Regian, PeopleTec, Inc.	Next Generation Fast-Running Progressive Damage (PD) Methodology Ms. Sherri Hodgson, Applied Research Associates, Inc.
1200 - 1315	Attendee Networking Lunch Sponsored by Northrop Grumman Corporation Guests of Attendees may purchase tickets for \$15.00 at the NFCS Desk	

	Track One	Track Two
	Combat ID, cont.	Hypersonics/Conventional Prompt Strike & Hypersonic Threat Defense Session Chairs: Ms. Melissa Smith, Naval Surface Warfare Center Dahlgren Division & Mr. LeRoy Willemssen, Air Force Research Laboratory
1315 - 1320	Announcements	Session Introduction
1320 - 1340	Non-Cooperative Target Identification (NCTI) Sensor Overview Dr. John Gwynne, Matrix Research, Inc. & Mr. Kevin Williams, National Air & Space Intelligence Center	Hypersonic Missile Intercept Lethality and Debris Fall Dr. James Rejcek, Lockheed Martin Corporation
1340 - 1400	Combat ID in Dynamic Environments utilizing Machine Learning and ONR ACS3 Mr. Adam Weissman, Lockheed Martin Corporation	Enhanced Detection Performance and Prediction Accuracy for Real-World Hypersonic Events Ms. Amy Kossler, Northrop Grumman Mission Systems
1400 - 1420	Space Object Tumble Measurement and Characterization Dr. Tod Schuck, Lockheed Martin Rotary and Mission Systems	Over-the-Horizon Radar Analysis Mr. Joseph Papp, MIT Lincoln Laboratory
1420 - 1440	Combat Identification of Airborne Platforms Mr. Andrew Freeman, Air Force Research Laboratory	Fire Control Concepts for Countering Advanced Threats *Mr. Christopher Thackston, Torch Technologies, Inc.
1440 - 1500	DEVIANT: Real-Time Bayesian ATR for Detection and Identification of Critical Mobile Targets Mr. Brett Ballard, BAE Systems	Modeling and Simulation of High Speed Sensors *Dr. Kellie McConnell, Georgia Tech Research Institute
1500 - 1530	Afternoon Break	
	Track One	Track Two
	Sensor Resource Management/Sensor & Data Fusion Session Chairs: Mr. Steven Buckley, Navy Program Executive Office, Integrated Warfare Systems & Mr. Jesse Hodge, Naval Air Systems Command	Directed Energy Session Chairs: Mr. David Cox, U.S. Army Space & Missile Defense Command/ Army Forces Strategic Command & Ms. Paige Rumberg, Naval Surface & Mine Warfighting Development Center
1530 - 1535	Session Introduction	Session Introduction
1535 - 1555	Enterprise SRM with Cross-Cueing for Detection and Tracking of Missiles Dr. Peter Shea, Black River Systems Company	Navy Warfighting CONOPS for Directed Energy Ms. Paige Rumberg, Naval Surface and Mine Warfighting Development Center

1555 - 1615	Fusion of N Dependent State Estimate Vectors Dr. Denis McCabe, Naval Surface Warfare Center Dahlgren Division	Modeling a Modular Integrated Laser Weapon System Kill Chain to Support Design and Integration Trades Mr. Eric Schroeder, Naval Surface Warfare Center Dahlgren Division
1615 - 1635	Radar Resource Management in a Joint Environment for Post Intercept Debris *Mr. Ryan Kutzko, Raytheon Company	Directed Energy Weapon Deconfliction *Mr. Justin Boyar, Raytheon Company
1635 - 1655	Pacing the Threat with Distributed Planning Mr. Adam Weissman, Lockheed Martin Corporation	Surface Navy Laser Weapon System (SNLWS), Increment 1 - High Energy Laser with Integrated Optical-Dazzler and Surveillance (HELIOS) Mr. Jeffrey Johnson, Lockheed Martin Corporation & Dr. Gerald Manke II, Program Executive Office, Integrated Warfare Systems
1655 - 1715	OPERA: Multi-Platform EO/IR/SAR Feature-Level Fusion and Information-Theoretic Tasking Dr. Mark Kolba, BAE Systems, Inc.	Joint Laser Systems Effectiveness (JLaSE) Joint Test Overview Mr. Scott Boyd, Naval Surface Warfare Center Dahlgren Division
Thursday, 7 February 2019		
0700 - 0745	Speaker Breakfast for Thursday's Presenters	
0700 - 0830	Attendee Continental Breakfast	
0700 - 1715	Registration Open	
	Track One	Track Two
	Enabling Joint Fire Control: Warfighter Challenges & Operational Lessons Learned Session Chairs: Mr. Ron Henry, Northrop Grumman Corporation; Mr. Glenn McLeod, Lockheed Martin Corporation & Mr. David Pyne, Georgia Tech Research Institute	Advanced Technologies Session Chairs: Mr. John Robinson, U.S. Army Space & Missile Defense Command/Army Forces Strategic Command & Mr. Thomas Shew, Raytheon Missile Systems
0800 - 0805	Session Introduction	Session Introduction
0805 - 0825	Joint Theater-Level Intelligence, Surveillance, and Reconnaissance (JTISR) Targeting Study – Evaluating Sensor-to-Shooter Operations Mr. Andrew Buchholz, U.S. Army Training and Doctrine Command Analysis Center	Photonics for Ultra-Wideband Fire Control Applications Mr. Kyle Davis, Georgia Tech Research Institute

0825 - 0845	Naval Integrated Fire Control – Electronic Warfare Mr. Joe Martinez, Naval Surface Warfare Center Crane Division	New Generation Imaging Technologies (NuGIT) Dr. J. Christopher James, Georgia Tech Research Institute
0845 - 0905	Surface Navy Critical Infrastructures Foundations Mr. Lyal Davidson, SAIC	Distributed Radar Seeker Topologies for Critical Target Detection *Dr. Kellie McConnell, Georgia Tech Research Institute
0905 - 0925	Intelligent Architectures as a Key Force Multiplier, Lessons Learned from the Overhead Persistent InfraRed (OPIR) Mission Mr. Jonathan Knez, Northrop Grumman Mission Systems	Novel Signal Processing for Airborne Passive Synthetic Aperture Radar Dr. Matthew Ferrara, Matrix Research, Inc.
0925 - 0945	Handbook on Joint Track Management for Air and Cruise Missile Defense Mr. Bradley Blume, PeopleTec, Inc.	Munition-Launched DF Guided Autonomous Drones using SDR *Ms. Korinne Dobosh, U.S. Army Armament Research, Development and Engineering Center
0945 - 1015	Mid-Morning Break	
	Enabling Joint Fire Control: Warfighter Challenges & Operational Lessons Learned, cont.	Advanced Technologies, cont.
1015 - 1020	Announcements	
1020 - 1040	Passive HF Radar *Dr. Jonathan Soli, Black River Systems Company	Triple Raven – A Long-Range, High-Altitude Advanced Technology Demonstration Mr. Richard Van Hook, Air Force Research Laboratory
1040 - 1100	Radar Signal Processing for Denied Access Mr. Gerard Richardson, Raytheon Space and Airborne Systems	Extending the Kill Chain with Free Space Optical Communications *Ms. Michelle O'Toole, Johns Hopkins University Applied Physics Laboratory
1100 - 1120	Comprehensive Layered Defeat A Framework for Full Spectrum Air and Missile Defense Capability Mr. Vishal Giare, Johns Hopkins University Applied Physics Laboratory	EMADE for Intelligence Surveillance and Reconnaissance Applications *Mr. Jason Zutty, Georgia Tech Research Institute
1120 - 1140	Electronic Maneuver Warfare in the Future Integrated Combat System Environment Mr. Mark Siyluy, U.S. Navy	Video Synthetic Aperture Radar (SAR) to Image Maneuvering Targets through Clouds Mr. Vincent Terek, Air Force Research Laboratory
1140 - 1200	Joint Kill Web Mr. Shawn Johnson, European Integrated Air & Missile Defense Center	Low Size, Weight, Power, and Cost Scalable X-Band Active Electronically Scanned Array for Multi-Function RF Dr. Jeffrey Connor, Georgia Tech Research Institute

1200 - 1315	Attendee Networking Lunch Guests of Attendees may purchase tickets for \$15.00 at the NFCS Desk	
	Track One	Track Two
	Enabling Joint Fire Control: Warfighter Challenges & Operational Lessons Learned, cont.	Cyber Warfare (Threat, Exploitation, Assurance, Attack & Defense) Session Chairs: Mr. Michael O'Gara, Space & Naval Warfare Systems Center, Pacific & Ms. Jennifer Splaingard, The Boeing Company
1315 - 1320	Announcements	Session Introduction
1320 - 1340	Extending Radar Emitter Identification into Complex Radar Environments using Time-Dependent Convolutional Networks *Mr. Colin Lee, Naval Air Systems Command	Cyber Maneuverability and Operational Volatility Framework *Ms. Natalie Anderson & *Mr. Paul Markakis, Johns Hopkins University Applied Physics Laboratory
1340 - 1400	Evolving the Surface Navy Combat System to Achieve a Digital Warship Mr. Scott Bewley, Navy Program Executive Office, Integrated Warfare Systems	Blockchain-Based Cyber Solution Mr. Ambrose Kam, Lockheed Martin Rotary and Mission Systems
1400 - 1420	Alternative RF Fire Control *Dr. Stephanie Fried, MIT Lincoln Laboratory	Integrating Cyber into the Multi-Domain Campaign Ms. Kristine Henry, Johns Hopkins University Applied Physics Laboratory
1420 - 1440	Group Positioning in GPS-Denied Environments Mr. Bryan Teague, MIT Lincoln Laboratory	Observations from Modeling the Deterrence of Cyber-Attacks Mr. Bill Wilhelm, Lockheed Martin Corporation
1440 - 1500	Enabling the Multi-Domain Battle Mr. Kyle Hilton, Raytheon Company	Applied Analysis of Cybersecurity Heuristics Mr. Jake Hertenstein, The Boeing Company
1500 - 1530	Afternoon Break	
	Track One	Track Two
	Electronic Warfare Session Chairs: Dr. Joseph Deroba, U.S. Army Research, Development & Engineering Command, Communications-Electronics Research, Development & Engineering Center & Mr. Mark Longbrake, Black River Systems Company	Joint Integrated Air & Missile Defense Session Chairs: Mr. Stanley Schroeder & Mr. John Warnke, Lockheed Martin Corporation
1530 - 1535	Session Introduction	Session Introduction

1535 - 1555	Information Denial for Missiles *Dr. Joseph Munoz, MIT Lincoln Laboratory	Mass Raid Attack! How Good is your Integrated Air and Missile Defense *CDT Nathanael Endo & Maj Scott Warnke, U.S. Army
1555 - 1615	Flight Test Observations Mr. Kent Patterson, MIT Lincoln Laboratory	Addressing Critical Shortfalls in Joint Multi-Mission Integrated Air and Missile Defense (IAMD) Collaborative Planning Mr. Earl Reed, deciBel Research, Inc.
1615 - 1635	Image Processing for Electronic Protection *Ms. Marisa Zemsky, MIT Lincoln Laboratory	2019 State of Navy Integrated Air and Missile Defense Ms. Paige Rumberg, Naval Surface and Mine Warfighting Development Center
1635 - 1655	Network Enabled Electronic Defense System *Mr. Shaun Hoyt, Raytheon Company	"Fight as a Fleet" --- Interoperability through Force-Level Planning and Real-Time Optimization Algorithms Dr. Stephen Woodall, IERUS Technologies, Inc.
1655 - 1715	Performance Analysis Tool for the Softkill Performance and Real-Time Assessment (SPARTA) Program *Mr. Joseph Heinrichs & *Mr. Kevin Schmid, Johns Hopkins University, Applied Physics Laboratory	Kinetic Boost Phase Intercept of ICBMs *Dr. Joseph Munoz, MIT Lincoln Laboratory
1715 - 1730	Poster Award Winners Announced & Grand Prize Give-Away	
1730	Adjourn	

* Indicates presentation is being given by a candidate for the Early Career Award. This award recognizes an "early career" presenter/author for making meaningful contributions to the Fire Control Community. Those new to the field in the last 7 years delivering and authoring an oral presentation are eligible for consideration of this award.