

HOSTED BY THE USNA RESEARCH OFFICE

Midshipman Research Poster Session



**U.S. Naval Academy
Dahlgren Hall
11 Dec 2018**

- 0830-0900 Open poster viewing
Mids are free to view other posters and talk to classmates about research.
Guests can view posters.
- 0900-1030 All mids must stand by their posters and discuss their research with faculty
and guests.

These midshipmen are enrolled in independent research courses (XX495 or Trident) or honors courses, and have been working with USNA faculty on projects in many areas, including those of interest to the Navy. This unique learning experience allows midshipmen to apply their classroom knowledge to new areas and important problems as well as develop their critical thinking skills. Today, we celebrate their accomplishments and contributions.

POSTER #	MIDN Presenter(s)	Major	Poster Title	Adviser(s)
1	Yash Khataavkar ^T	Aerospace Engineering	Predicting Optimal Maneuvering Time Benefits for Satellite Attitude Control	J. King
2	Alexandria Ostrander ^B	Aerospace Engineering	Effects of Eddy Currents on CubeSats	J. Kang, C. Mungan
3	Charles Oestreich	Aerospace Engineering	Model-Free, Non-Cooperative Spacecraft Pose Estimation Using Multiple Sensors	T. Lim, R. Broussard
4	Kaden Dohm	Aerospace Engineering	Characterization of Feeding and Longevity of a Pulsed Plasma Thruster	J. Kang
5	Benjamin George	Aerospace Engineering	Development of Method for T-jump Circuit Analysis of Rocket Propellants	P. Caton
6	Andrew Bishop	Aerospace Engineering	Analysis of Aerodynamic Stabilization and Drag Makeup Propulsion for Ultra-low Earth Orbit Spacecraft	J. Kang
7	Gavin Roser	Aerospace Engineering	ASTM Tensile Bar Testing of Lulzbot Taz 6 3D Printed Materials	T. Graves
8	Eric Braun	Robotics and Control Engineering	Experimental Comparison of Robotic Systems under Different Levels of Autonomy	E. Rodriguez-Seda, P. Jaramillo
9	Ben Skinner	Robotics and Control Engineering	Identifying the Correlation Between Mental and Physical Fatigue During High Intensity Exercise	P. Jaramillo, M. Feemster
10	Anderson Camp ^T	Robotics and Control Engineering	Modeling and Control of McKibben Muscles based on Coupled Piston-FAM Model for use in Rehabilitation Devices	P. Jaramillo, E. Chapman
11	Bethany Spangler	Robotics and Control Engineering	Development of Tourniquet Systems: State of the Art	P. Jaramillo
12	Catalina Rico	Robotics and Control Engineering	Decentralized Collision and Deadlock Avoidance for a Group of Autonomous Agents	E. Rodriguez-Seda
13	Brandon Canlas	Robotics and Control Engineering	Shape Formation Control of Autonomous Swarms	L. DeVries
14	Cydney Lawrence	Robotics and Control Engineering	An Analysis of the Cobelli Model Parameters and their Effects on Glucose Level Regulation	R. O'Brien
15	Sharat Nemani	Robotics and Control Engineering	Unmanned Aerial Systems, Sensors, Modular Payloads and Algorithmic Tools for Ecological Study	D. Evangelista
16	Tyler Fleig	Robotics and Control Engineering	Seesaw Balancing Vehicle - Preparation For Optimal Control	P. Frontera
17	Marc Descour	Robotics and Control Engineering	Bio-Inspired Soft Robot	L. DeVries, D. Evangelista
18	Luke Marino, Drew Robinson	Robotics and Control Engineering	Foundations of Autonomous Sailing	P. Frontera
19	Moses Park	Robotics and Control Engineering	Flexible, Modular Actuator	L. Devries

POSTER #	MIDN Presenter(s)	Major	Poster Title	Adviser(s)
20	Dan Jackson	Robotics and Control Engineering	Condition Based Maintenance Using Non-Contact Power Sensors	J. Donnal
21	Dakota Wenberg ^{T,B}	Robotics and Control Engineering	Development of Hybrid Robotic Controller for Autonomous, On-Orbit Spacecraft Assembly Applications	M. Kutzer, L. DeVries, J. Kang
22	Andrew Toth	Robotics and Control Engineering	Can We Redirect a Crowd by Seeding it with Informed Leaders?	D. Evangelista
23	Jordan Tolentino	Robotics and Control Engineering (Honors)	Modeling Swarm Assaults on Counter UAS Targets	J. Dawkins
24	Carson Wood	Robotics and Control Engineering (Honors)	Real-Time Path Planning for a Persistent UAV Swarm	L. Devries, M. Kutzer
25	Varun Bhagat	Robotics and Control Engineering (Honors)	Machine Learning Based Predictions of Baseball Statistics	J. Esposito
26	William Paris	Computer/Electrical Engineering	Characterizing Autonomous Collectives with Infiltrators	K. Galloway, L. DeVries
27	Rupam Mondal	Computer/Electrical Engineering	Firmware Classification via Side Channel Power Analysis Using Open-Source Solid-State Drive Platform	H. Ngo
28	Miriam Ewall-Wice ^B	Computer/Electrical Engineering	Optomechanical Actuation of Diamagnetically Levitated Pyrolytic Graphite	H. ElBidweihy, S. Yee, S. Montgomery, P. Joyce
29	Adam Kong	Computer/Electrical Engineering	Rapid Detection of High Energy Laser Weapon Strikes using Distributed Optical Fiber Sensors	B. Jenkins, P. Joyce, C. Nelson
30	Robert Leyba	Computer/Electrical Engineering	Three Phase Dead Zone Oscillator Control Under Unbalanced Loads	D. Opila, K. Kintzley
31	Herbie Chen	Computer/Electrical Engineering	Underwater LED Communicator in Various Underwater Environments	C. Nelson, T.O. Walker
32	Zachary Johnson ^B	Computer/Electrical Engineering	Classifying Solid State Drive Firmware Via Side-Channel Current Analysis	R. Rakvic
33	Theresa Neubig	Electrical Engineering and Mechanical Engineering	Recognition of Imagined Speech using Electroencephalogram Signals	L. Sellami
34	Daniel Johnston	Computer Science	Human Cognition in Privacy Zone Attacks	A. Aviv
35	Tim Forman	Computer Science	Is Two Better Than One? Extending Android Unlock Patterns to Utilize Multiple Patterns	A. Aviv
36	Yair Abramoff ^B	Computer Science	Algorithms for Improving Drone Swarm Tactics	R. Crabbe
37	Hersh Rai, Jon Rogers	Computer Science & Information Technology	Detecting Similar Binary Executable Files	M. Bilzor
38	Aulden Eatmon	Cyber Operations	Analysis of Need For Global Data Protection Laws to Prevent Governments From Weaponizing Personal Data	J. Lewis

POSTER #	MIDN Presenter(s)	Major	Poster Title	Adviser(s)
39	Allison Spencer	Cyber Operations	Smart Energy through Occupancy Tracking	E. Rodriguez-Seda
40	Samuel Baker ^T	Mathematics	Modeling Fixed Networks with Random Graphs	F. Kenter
41	Matthew Dods ^B	Mathematics	Community Detection via Spanning Tree Analysis	M. Wakefield
42	Shannon Dillman	Mathematics and Operations Research	Bounding the Cop Number of a Graph	F. Kenter
43	Lauren O'Malley ^B	Operations Research	Analysis of Competing Two-Sided Kill Chain	B. Nguelifack
44	Michelle Zhen	Operations Research	Efficient Coding of Chinese Characters	Wm. Withers
45	Aspen Bentley	Operations Research	Midshipmen Attitudes Toward Male Rape Myths: Validating and Verifying the Male Rape Myth Scale	E. McGuffey
46	Megan Hanson ^T	Mathematics with Economics	Teachers, Timing, and Tenacity	A. Rahman, K. Smith, A. McQuoid
47	Davis Katakura ^T	Mathematics with Economics	China's Export Effects: Empirical Analysis on Global Supply Chains	J. Rothert, K. Smith, D. VanDerwerken
48	Cassandra Dooley ^T	Mathematics with Economics	Fragile States and FDI in Africa	A. McQuoid, K. Smith, A. Rahman
49	Cullen Harper	History	Colombian National Drug Regulation, 1934-1939	S. Crawford
50	N. Engel	History	Cybersecurity in Small States: Israel, Singapore and Finland	M. Libicki
51	Michael Foschi	History	Casualty Resolution in Southeast Asia, 1973-1976	B. VanDeMark
52	Eleonore Porter	English	"Playing the Dozens": An Analysis of Black Masculinity Through Language	M. McWilliams
53	Krista Trefren	English	Reclaiming Human Identity: An Exploration into Dynamic Construction of Naming, Familial, and Cultural Experiences in African American History	M. McWilliams
54	Zack Varney	English	The Use of the Secondary Effects of Slavery in Abolitionist Argumentation	M. McWilliams
55	Kieran McCarthy	English	<i>Beloved Scars: Meaningful Truths or Simply a Story to Pass On?</i>	M. McWilliams
56	Katey Mae McInturff	English	Representations of Violence in Slavery	M. McWilliams
57	Sidney Knipple	English (Honors)	From <i>Harry Potter</i> to <i>The Hate U Give</i> : The Evolution and Effects of Diversity in Young Adult Literature	M. McWilliams
58	Jessica Cozine	English (Honors)	Silencing Slavery: American Trauma and Black Identity	M. McWilliams
59	Hannah Lindsay	English (Honors)	Tell Me Where It Hurts: The Effects of Slavery's Systematic Dehumanization on Modern Pain Perception	M. McWilliams
60	Desiree Peterson	English (Honors)	The Black Guy Always Dies First: Effects of Veiled Perceptions of Blacks in Horror Films on American Culture	M. McWilliams

POSTER #	MIDN Presenter(s)	Major	Poster Title	Adviser(s)
61	Victoria Meyer	English (Honors)	Remembering Memory Together: The Creation of Transgenerational Haunting and Collective Identity from "Rememory" in Toni Morrison's <i>Beloved</i>	M. McWilliams
62	Kaitlyn Moore	History (Honors)	The Voice of America and Nazi Germany, 1942-1945	M. Jones, T. McCarthy
63	Maggie Dods	English, Arabic	The Sword, the Pen, and the Spray-Can: Oppression, Recognition, and Resistance in African-American and Iraqi Literature	C. Burt, M. McWilliams
64	Erin McShane	Spanish	Barriers to Healthcare for the Latino Population	S. Peart
65	Erin McShane	Chemistry	Structural and Functional Analysis of Endogenous Retroviral Elements	I. O'Carroll
66	Nicole Sarao	Chemistry	Determination of Heavy Metals in Hyperaccumulator Plants by X-Ray Fluorescence	M. Schroeder
67	Bianca Roach, Clare Suess	Chemistry	Analysis of Particulate Level Understanding in Atoms First General Chemistry Course	D. Dillner, T. Ritchie, M. Schroeder, M. Teichert
68	Kelsey Melinosky, Rachel Parker	Chemistry	Cloning, Overexpression, and Purification of <i>Mycobacterium chelonae</i> L,D-transpeptidases	L. Basta
69	Aaron Watson	Chemistry	Forensic Analysis of Soil by XRF	G. Cheek
70	Natalie Lemek	Chemistry	Characterization of Psychrophilic Endotoxin from the Severn River	C. Sweet
71	Julia Fries	Chemistry	Analysis of Surrogate Mixtures for Military Jet Fuel Based on Chemical Composition and Physical Properties	D. Luning Prak
72	Rochelle Gober	Chemistry	Analysis of Surrogate Mixtures for Military Jet Fuel Based on Chemical Composition and Physical, and Chemical Properties	D. Luning Prak
73	Robert Chung ^T , Christian Hoffman	Chemistry	Evaluation of Polymerizable Ionic Liquids for the Development of Advanced Functional Biomaterials	P. Trulove, D. Durkin, E. Yates
74	Ellie Deglau, Gabe Gosney	Chemistry	Analysis of Fabric Dyes Using Capillary Electrophoresis	C. Copper
75	Cody Mendelow	Chemistry	Continuous Electrokinetic Injection in Capillary Electrophoresis to Increase Sensitivity	R. Siefert
76	Pyung Choi	Chemistry	Electrochemical Studies of L-Tryptophan interactions with Divalent Metal Cations	G. Cheek
77	Dylan Cabrera	Chemistry	Computational Study of Amide Linkages	J. Urban
78	Eleanor Pratt, Nii Amoo Quaye	Chemistry	The Impact of Sweetgum Tree Leaf Maturity Zones on the Leaf Defenses against Insect Herbivores	B. Rehill
79	Benjamin Alford, Kendall Graser, Lawson Stancil, Miles Whitlow	Chemistry	Destruction of Organophosphorus Nerve Agents Using Metal-Organic Frameworks (MOFs)	C. Whitaker

POSTER #	MIDN Presenter(s)	Major	Poster Title	Adviser(s)
80	Benjamin Alford, Kendall Graser, Lawson Stancil, Miles Whitlow	Chemistry	Synthesis of Energetic Binders for Rocket Propellant	C. Whitaker, P. Caton
81	Christian Hoffman, Robert Chung ^T	Chemistry	Evaluating the Impact of Natural Fiber Welding on Cellulose Structure Through Atomic Force Microscopy	P. Trulove, D. Durkin, E. Yates
82	Dwayne Williams	Chemistry	Characterization and Analysis of Commercial Dyes	J. Lomax
83	Jocelyn Rodriguez	Chemistry	Synthesis of Antimalarial Compounds	C. Gutteridge
84	Jordan Cabarrus	Chemistry	Synthesis of Antimalarial Compounds	C. Gutteridge
85	Hasan Abdullah	Chemistry	Changing the Ligand Specificity of a Riboswitch from Guanine to Hypoxanthine	D. Morse
86	Brianna Warren	Chemistry	Evaluation of Anti-Corrosion Coatings Using Scanning Electrochemical Microscopy	J. Spencer
87	Mitchell Winkie	Chemistry	Measles Epidemiology in Annapolis, MD During the Early 1900's	A. Bobb
88	Mitchell Winkie	Chemistry	Characterization of Methionine Sulfoxide Reductase A (MsrA)	J. Schlessman
89	Stefano Pineda ^{T,B}	Mechanical Engineering	Numerical Simulation of Laser Induced Drop Evaporation	C. Brownell, E. Lunasin, S. Blair
90	Nicholas Vu ^T	Mechanical Engineering	Thermal Characterization of Nickel Titanium Shape Memory Alloys via Frequency Domain Thermoreflectance	R. Warzoha, A. Smith, B. Donovan
91	Benjamin McHale ^B	Mechanical Engineering	Analysis of Stereolithography (SLA) as an Additive Manufacturing Technique	B. Baker
92	Benjamin Meinster	Mechanical Engineering	Developing a Thermodynamic Model for the USNA GT-ORC Waste Heat Recovery System	M. Cerza, S. Blair
93	Patrick Moore	Mechanical Engineering	Operational Military Engine Degradation Detection with Machine Learning	J. Cowart
94	Jubal Schmit ^B	Mechanical Engineering	Modelling of Submarine Heat Exchanger Fouling	K. Flack
95	Thomas Imhoff ^T	Mechanical Engineering	A Parametric Study on Bracing Methods for Asymmetrically Loaded Gridshells	S. Malek
96	Anne Richter ^B	Mechanical Engineering	Designing a Single Cylinder Diesel Engine Air Intake Manifold and Port Using Additive Manufacturing	E. Retzlaff
97	Andrew Weiss	Mechanical Engineering	Study of Properties and Behaviors of Dielectric Elastomers	P. Joyce, H. Elbidweihy
98	Katie Wesdyk ^T	Mechanical Engineering	A Sustainable, Market-Based Approach to Water Service Delivery Methods in a Rural Context	E. Lust, P. Caton, K. Swope
99	Nicholas Nathan ^B	Nuclear Engineering	Ion Irradiation Effects on MA956 Microstructure and Material Properties	E. Getto

POSTER #	MIDN Presenter(s)	Major	Poster Title	Adviser(s)
100	Eric Reddick ^B	Nuclear Engineering	Characterizing Neutron Flux in the Urban Environment	M. Millett
101	Andrew Lee ^B	Nuclear Engineering	Radiation Background Characterization at Altitude	T. Chapman, M. Millett
102	Elizabeth Troy	Nuclear Engineering	Undersea Special Nuclear Material Detection	M. Millett, T. Chapman
103	Andrew Reinhart ^B	Nuclear Engineering	Material Characterization of Additively Manufactured INCONEL-718	B. Baker
104	Alexander Tracy ^B	Nuclear Engineering	Characterization of the Neutron Ship Effect in Vicinity of a Loaded Cargo Vessel	M. Millett
105	Jordan Rushing ^B	Nuclear Engineering	Corrosion of Accident Tolerant Fuel Cladding	E. Getto
106	George Denove	Naval Architecture and Marine Engineering	An Integrated Approach to Shipboard Cybersecurity	C. Judge, J. Hill Wood, D. Bondura
107	Mikaela Garrott	Naval Architecture and Marine Engineering	Biomimetic Caudal Fin Propulsion System Design	A. Laun
108	Chance Davis	Naval Architecture and Marine Engineering	Bio-Inspired, Plunge-Diving UAV Design	A. Laun
109	Bridgette Hickey	Naval Architecture and Marine Engineering	Hudson River Tunnel Analysis	A. Wargula, V. Johnson
110	John Minnehan ^B	Naval Architecture and Marine Engineering	Hydrogen Fuel Cell Integration to Commercial Marine Engineering	C. Judge
111	Sabella Goodwin ^B , Morgan Wade	Ocean Engineering	Mangroves: Practical Shoreline Protection	V. Johnson, A. Wargula
112	Cassandra Haller ^B	Ocean Engineering	Techno-Economic Analysis of Kelp Farms	V. Johnson, D. Fredriksson
113	Shelby Sipes	Ocean Engineering	Wave Forces on Elevated Structures	S. Mouring, T. Johnson
114	Blake Driscoll	Ocean Engineering	Wave-Powered AUV Recharging: A Feasibility Study	A. Gish
115	Bennitt Hermesen ^{T,B}	Ocean Engineering	Near Wake Characteristics of a Marine Propeller in the Presence of Free Stream Turbulence	L. Luznik
116	Benjamin Stewart	Ocean Engineering	Effects of Coil Misalignment in Underwater Inductive Power Transfer	A. Gish
117	Jack Krall	Ocean Engineering	Service Kayak Modeling and Interpretation	B. Lawson
118	Keely Martin	Oceanography	Intraseasonal Variability of the Gulf Stream Current: Physical Mechanisms and Connections to Atmospheric Forcing	B. Barrett, A. Davies

POSTER #	MIDN Presenter(s)	Major	Poster Title	Adviser(s)
119	Jahna Alleyne	Oceanography	Recent Changes in the Physical Oceanography of the Seasonal Ice Zone	S. Gallaher
120	Shannon McAllister	Oceanography	A First Look at the TROPIC Dataset: AXBT Ocean Observations from 2011-2018	E. Sanabia
121	Lindsey Wan	Oceanography	Annapolis' Hurricane History: A Study of the Sensitivity to Storm Intensity and Approach Vector	B. Barrett, A. Davies
122	Anna Maxsimic	Oceanography	Water Level Trends in Annapolis, MD	W. Swick
123	Claire Chandler	Oceanography	The Fate of Upper Ocean Heat Storage Under Variable Late Summer Winds in the Western Arctic	S. Gallaher
124	Hannah Steiner ^B	Physics	Lagrangian Measurements of Fluid Flow	K. McIlhany
125	Maddi Falvey	English	Active Noise Cancellation for Underwater Sound Application	M. Korman
126	Tim Getscher ^B	Physics	Eulerian Indicators in Double-Gyre Flow	K. McIlhany
127	John Heropoulos ^B	Physics	Neural Network Solver for Single Particle Quantum Systems	S. Rittenhouse
128	Lukas Atwood	Physics	Two-Dimensional Hexagonal Boron Nitride Nanosheet as an Ion-Capturing Planar-Alignment Agent in a Liquid Crystal-Based Electro-Optic Device	R. Basu
129	Evan Camp, Matthew Signorelli	Physics	When Things get Cold: Discovering Absolute Zero	D. Finkenstadt
130	Mateo Ronquillo	Physics	Modeling the Thermodynamics of Tin Using AFLOW	M. Mehl
131	Andrew Klassen	Physics	Measuring the Specific Heat of Loaded Epoxies	E. Cimpoiasu
132	Joe Wiedemann	Physics	Measuring Orbital Angular Momentum Laser Beam Performance as a Function of Topological Charge	S. Avramov, C. Nelson
133	Dean Rye ^T	Physics	Coupled Jaynes-Cummings Cavities in a Non-Equilibrium Environment	S. Rittenhouse
134	Viktor Turner ^B	Physics	Quantum Coherence in Light Harvesting Molecules	S. Rittenhouse
135	Charlie Kim	Physics	Nuclear Reactions in No Man's Land	J. Vanhoy
136	Andrius Bernotas ^T	Physics	Electron Phonon Coupling in Superlattices	B. Donovan
137	Drew Weninger ^T	Physics	Quantum Singularities in Spherically Symmetric Black Hole Spacetimes	D. Konkowski, M. Baker, E. Ita, T. Helliwell
138	Erik Jorde, Shawn Paris, Ellis Rorie, James Wilson	Energy Security	Energy Security for Germany	P. Caton, H. Ernst, K. Flack, J. Smith, K. Swope
139	Gabriella Baltimore, Nik Galvan, Mark Pickar, Greg Gruseck	Energy Security	Energy Security for Canada	P. Caton, H. Ernst, K. Flack, J. Smith, K. Swope

POSTER #	MIDN Presenter(s)	Major	Poster Title	Adviser(s)
140	MaryKate Helms, Samantha Nourse, Claire Chandler, Michael Coritz	Energy Security	Energy Security for Saudi Arabia	P. Caton, H. Ernst, K. Flack, J. Smith, K. Swope
141	Gregory Sibick, Reid Kaplan, Zack Salyers, Thomas Williams	Energy Security	Energy Security for United Kingdom	P. Caton, H. Ernst, K. Flack, J. Smith, K. Swope
142	Deforest, Hanko, Lunceford, Minton, Nianggolan	Energy Security	Energy Security for Norway	P. Caton, H. Ernst, K. Flack, J. Smith, K. Swope
143	Leglise, Brigham, Patzy, Devito	Energy Security	Energy Security for India	P. Caton, H. Ernst, K. Flack, J. Smith, K. Swope
144	Kristy Lehmer, John Paulsen, Roddy Tskhakaia, Morgan Whetstone	Energy Security	Energy Security for Venezuela	P. Caton, H. Ernst, K. Flack, J. Smith, K. Swope
145	Jacob Burns, Renee Loucks, Parker Caulfield, Diego Manrique	Energy Security	Energy Security for Iran	P. Caton, H. Ernst, K. Flack, J. Smith, K. Swope
146	Michael Mason, Jimmy Lee, Rece Goodman, Zoe Wang	Energy Security	Energy Security for Vietnam	P. Caton, H. Ernst, K. Flack, J. Smith, K. Swope
147	Grammer, Devin, Ehrenberg, Knowles	Energy Security	Energy Security for Israel	P. Caton, H. Ernst, K. Flack, J. Smith, K. Swope
148	Amanda Agana, JP Caniban, Nate Pfeifer	Energy Security	Energy Security for South Africa	P. Caton, H. Ernst, K. Flack, J. Smith, K. Swope
149	Derek Cho, Walt Fagan, Thomas Garbee, Paige Krumwiede	Energy Security	Energy Security for Nigeria	P. Caton, H. Ernst, K. Flack, J. Smith, K. Swope
150	Nicholas Elder, Tyler Kiyota, Lindsey Wan	Energy Security	Energy Security for China	P. Caton, H. Ernst, K. Flack, J. Smith, K. Swope
151	Dan Fullmer, Major Henry, Noah Miller, Katie Wesdyk	Energy Security	Improving Energy Security for France through Fast Nuclear Reactors	P. Caton, H. Ernst, K. Flack, J. Smith, K. Swope

POSTER #	MIDN Presenter(s)	Major	Poster Title	Adviser(s)
152	Nathaniel Buss, Taylor Holland, Shannon McAllister, Alex Velez, Jared Prince	Energy Security	Solving Brazil's Energy Crisis is a Breeze: the Promise of Wind Power	P. Caton, H. Ernst, K. Flack, J. Smith, K. Swope
153	Marissa Stinson, Lucia Donnelly, Cedric Bevis, Aaron Dunn	Energy Security	Russian Energy Advances in the Arctic	P. Caton, H. Ernst, K. Flack, J. Smith, K. Swope
154	Aaron Martinez	Aerospace Engineering	Measurements of Rotors Hovering above Moving Surfaces	J. Milluzzo
155				
156	Late Posters			

T = Trident Scholar
B = Bowman Scholar

Note: Many of these projects are on-going and will be continued in the spring semester. A few posters will not have midshipman presenters (due to conflicts with exams).

More information about midshipman research can be found at:
<http://www.usna.edu/AcResearch/MidResearch/>

Generous support for midshipman research has been provided by the Office of Naval Research (ONR).

Special Thanks to all supporters of Midshipman Research:

USNA Faculty and Staff
USNA MSC and Nimitz Library
Defense Threat Reduction Agency (DTRA)
Class of '79 Gift Fund
Class of '62 Gift Fund

