Hymiar Hamilton
Electrical Engineer, BSEE, MSEE
I do have a Security Clearance and CAC card(s)
Mobile: (228) 238-8939
Email: hymiar@hotmail.com
NMCI Email: hymiar.hamilton@navy.mil
SUPSHIPGC Email: hymiar.hamilton.ctr@supshipgc.navy.mil

United States Navy Reserve, 10/2013 – Present
LTJG O-2, Engineering Duty Officer (E.D.O)– 1465
Naval Air Station Joint Reserve Base New Orleans (NAS JBR)
Naval Operation Support Center (NOSC) New Orleans
NSU: NAVSEA NR SURGEMAIN NEW ORLEANS
SurgeMain Unit Commanding Officer: LCDR Melvin Spooner, (504) 654-9404

Assigned duty as the Executive Officer, XO, for SurgeMain New Orleans Unit; current reserve duty drill site is located atthe Naval Air Station Joint Base Reserve, Navy Operational Support Center (NAS JBR NOSC) in Belle Chasse, LA. Duties are assigned to unit administration, shipyard operational support and management, and logistics while ensuring enlisted Sailors (SELRES) in the SurgeMain New Orleans Unit meet reserve readiness requirements for mission support and operational support to the 4 public Navy Shipyards. I also take charge and carry out duties in the absence of the Commanding Officer.

Alion Science and Technology
09/2011 - Present
3400 Jerry St Pé Hwy
Pascagoula, MS 39567 United States
Marine Engineer (Electrical Engineer)
Supervisor: Kevin Trochesset (2282298496)

Currently assigned as a Marine Engineer (Electrical Engineering Support) working within the Amphibious and Auxiliary Operations of the Integrated Solutions Group (ISG) in Pascagoula, MS for Production and Engineering supporting LHA Amphibious Warfare Program Office PMS 377. Current duties are to provide electrical engineering support and innovative solutions to sustain the Navy's readiness to execute mission requirements. Currently tasking as the Electrical Lead for Electrical Systems for the LHA PMS 377 HM&E Team, 5th Division; ship support is geared at the LHA Class America (LHA6 and LHA7), as well as supporting the Hull and Mechanical logistics and operations. Areas of support include generation, power distribution, AESS, 400 HZ systems, electrical controls, HVAC, APS, MCS interfaces, controllers, switchgear, casualty power systems, and more.

Past duties include support to the PMS 317 (Washington, DC), Supervisor of Shipbuilding, Conversion, and Repair, USN, (SUPSHIP Gulf Coast) customers, and supporting PMS 470. Past duties were to provide innovative solutions to sustain the Navy's readiness to execute mission requirements in the following:

1. U.S. Naval & Marine Amphibious Ship Engineering and Logistic Support toward LPD Class 17 Naval ships. Duties involve supporting NAVSEA PEO ShipsPMS 317on any issues or questions that may arrive from HM&E (Hull, Mechanical, and Electrical), design, engineering, change development, verification and validation to ensure compliance within technical requirements, to differential analytical analysis while supporting and providing logistics. This includes the review of engineering documents, drawings, test procedures, cable reports, test manuals, and other technical documentation and design change proposals while resolving any electrical engineering issues.Additional duties include writing/reviewing ECRs (Engineering Change Request) for PMS 317C4 toward LPD Class 17 ships.

2. Working in support of the LPD 17 Program Office to review and track SCDs (Ship Change Documents) that are applicable to the LPD 17 Class ships. Alion Engineering Tiger Team Leader in support of monthly Construction Change Boards (CCB). I ensured complied SCDs are acceptable for implementation on LPD 17 Class ships by reviewing the engineering and technical documentation, and resolving technical and process issues. I verified and validated as-built conditions to insure that the SCD adequately described existing conditions and exercised the ability to evaluate the criteria, methods, and objectives deem essential to the SCDs reviewed. I managed the SCD technical review process in order to facilitate Program Manager or Principle Assistant Program Managers (PAPM) approval of SCD during CCB. Duties include reviewing the engineering and technical documentationsof the following: ECR, RFS/MSCR, LP, ECN, FIAN, AIT, AWI, EWI, WS, HMR, FMR, FSR, and WTA/CHIT (i.e. shipboard system diagrams, vendor drawings, calculations, test procedures/reports, and technical manuals), while ensuring any technical nonconformance did adhere to technical compliance, standards, and policies. Additionally, I discussedand consultedthe SCD in-depth technicality and process with PARM or Technical Point of Contact (TPOC) to ensure complete competency and functionality for a successful change submission, as well as report/discussed any issues with Ship Design Managers (SDM) and Technical Warrant Holders (TWH). I continually reported all information and findings to the monthly SCD Change Control Board meetings, while tracking monthly updates to Navy Data Environment (NDE).

3. Participate (LHA-currently and LPD) in shipboard physical configuration audits/inspections of piping, electrical, mechanical (components), and systemsto validate shipbuilder configuration baseline and baseline modifications meet contract requirements; interpreting and ensuring compliance with technical requirements, standards, and policies are satisfactorily performed. The auditing process is a technical decision-making process.

The overall duties as a Marine (Electrical) Engineer requiresin-depth technical decision making processes with or without upper level supervision and knowledge of engineering methods and current technologies in which a Marine Electrical Engineering contractor can implement planning, coordination and development of technical work and performance meeting government approval and customer satisfaction.

Additional past duties (some areas applicable to LHA Class America current baseline) include the following:
1. Working with the label plate team in auditing label plates and DC label plates on the component level for Electrical, Hull, Piping, and HVAC on LPD Class 17 (22, 23, & 24) type naval ships.

2. Working on electrical panel auditing which requires keeping an accurate update and professional understanding of the LHA andLPD Class 17 naval electrical systems (diagrams/schematics for lighting distribution panels and electrical power panels); system level audited components include the following: Power Panels, Lighting Panels, Isolation Receptacle Panels, Isolation Receptacle Load Center Panels, UPS Breaker Isolation Panels, Lighting Load Center Panels, Special Electrical Panels, and 400 Hz Power Panels.

3. Working with EOSS logistics (Engineering Operational Sequential Systems) through audit validation to ensure proper installment of naval system level machinery, equipment, and network structuring of piping, valves, and various differential EOSS components.

Label plate auditing requires extensive knowledge of naval shipboard damage control (DC), basic components and machinery installment throughout the ship, being able to read various technical manuals and diagrams/layouts to ensure proper installation of all components listed in the label plate database and ensure specification requirements are met to ensure proper labels are installed to identify each component. Electrical lighting distribution and power panel auditing ensures all circuitry is label properly and correctly to their respective load of service and respective load center, or ABT (Automatic Bus Transfer)/Transformer, or Manual Bus Transfer. Electrical auditing also requires that all electrical naval placard schematics installed on the ship are corrected and updated through the use of an electrical schematic editor that employs CadStd / Computer Automated Drawing Standard.

EOSS validation duties and support range from interpreting/understanding and ensuring compliance with technical requirements in that the inspection and auditing of all shipboard basic components and machinery/equipment were installed in accordance to NAVSEA EOSS technical schematic drawings. EOSS validation requires in-depth knowledge of such systems as VCHT systems, Compressed Air and Water Systems (Aux Sea Water, Central Fresh Water, Potable Water Systems, Medium Pressure and Low Pressure Air Systems, Medium Air Compressors), Fuel/Lube Oil Systems (Lube Oil Purifying and Transfer Systems for Ship Service Diesel Generators No. 1, No. 2, and No. 3, Lube Oil Purifying and Transfer Systems for Main Propulsion Engine No. 1A and 1B), AFFF (Aqueous Film Forming Foam) Machinery Spaces, Fire Main Systems, and more.

Specific Tasks Accomplished

1. From an engineering perspective, a professional, advance competence, exhaustive, and comprehensive understanding of the overall LHA and LPD 17 Class naval shipboard electrical power systems and electrical systems have been achieved; this includes the theoretical approach, concepts, principles, and practices from conceptual to applied practical experiences toward application. Extensive schematic editing/revision using CAD software and serving with Combined Test Team (LPD Class 17) answering callouts for electrical systems testing and validation employed a great insight into the LPD Class 17 electrical systems.

2. A detailed oriented understanding of Engineering Operational Sequential Systems of the LPD Class 17 naval ship has been appreciated, especially targeted for Main Engine Room 1 & 2, and Auxiliary Machine Rooms 1, 2, & 3.

3. A detailed understanding of numerous system level components and object level components on LPD Class 17 and LHA naval ships (i.e. jackbox, terminal box, EOS consoles, fan coil units with chill water return and chill water supply, etc).

Other specific tasks accomplished were duties assign to work with CTT (Combined Test Team LPD) to serve the customer in the Pascagoula, MS, HII shipyard. The following is a summation of services provided to our customer through support of CTT: test-witnessing and providing recommendations through an engineering problem solving approach of any issues encountered towards differential types of naval LPD 24 ship testing. Testing supported of current naval ship systems include test-witnessing the following:

A. Signals (Provided to EOS Consoles) from: pressure transducers, temperature gauges, electrical measurements devices (voltage, current, and power), and sensors (for indication, alarm calibration, verification, and operability; i.e. Main Machinery Room 1 and 2).

B. Electrical: Lighting Systems (Lighting Distribution and Control System Operations), 60 Hz Automatic Bus Transfer and Manual Bus Transfer (ABT's and MBT's), Ship Service 60 Hz Power Distribution and System IR, 60 Hz Transformer IR and Check , and witnessing the testing of receptacle grounding throughout the naval ship to ensure compliance within specifications and proper functionality.

C. HVAC and Mechanical: Witness Main Drain System Op's, Installation of In-drum can-compactor electrical and operations, Motor Controllers Operations (LVR / Low Voltage Release or LVP / Low Voltage Protection) testing, differential type of air pressure compressor machinery systems and operational testing, and etc.

D. MELO (Main Engine Light Out) testing. Worked with Navy personnel to ensure successful run and operation of main engine room 1 for LPD 24 through intensive inspections of the entire engine room. Inspections included EOS console operability, gauge instrumentation displaying accurate information, examining flow and mechanical operations and ensuring quality assessments were met (i.e. temperatures, oil fluid levels, air pressures were all within specification/range, while main engine 1A and 1B were fully functional and operational during testing phase).

Finally, duties have included clearing LPD 22 trial cards from various Huntington Ingalls Industry departments after BT's and AT's (Builder's and Acceptance Trials) for issues relating to HVAC, mechanical, painting, label plates, equipment installations, and electrical. Approximately 300 plus trial cards were cleared saving the customer on monetary financial burden. Summation: job duties have also been in support of LPD (22, 23, and 24) EOSS validation/auditing (Engineering Operational Sequential Systems) and LPD (22, 23, and 24) ship auditing of label plates and electrical power and lighting distribution panels.

NAVSEA (08/2011 – 09/2011) and EHS Technologies (01/2010 – 08/2011)
NAVSEA: Naval Surface Warfare Center Carderock Division
1000 Kitty Hawk Ave.
Philadelphia, PA 19112-1403 United States
EHS Technologies: Electrical Engineer
NAVSEA: Electrical (Naval) Engineer
Series: 0850 **Pay Plan:** GS **Grade:** 11
Supervisor: Daniel Evans (2158978484)

Engineering research, design, development, and computation analysis was oriented towards:
(1) Design (complex calculations/mathematics)through Modeling/Simulation (PSCAD and Simulink) toward the Destroyer DDG (Flight IIA, and III) naval architectural electrical power system and distribution. Electrical engineering design, modeling, and simulation was created for the following electrical power systems: power generation (IEEE Type II AC Exciter, Speed/Torque Control System, in-depth Ship Service Generator Modeling) to load centers and hybrid motor drives, marine propulsion systems coupled to advance power electronic motor drives, and power electronic conversion equipment (AC/DC and DC/AC converters/inverters employing Pulse Width Modulation, and 60 Hz to 400 Hz frequency converters). Power electronic integration (modularity/scalability, power conversion, module types, and power quality/harmonic analysis) advancement of the DDG-51 Flight-upgrades was also employed to ensure technical requirements met standards and policies if proprietary equipment was to be installed.
(2) DDG-51 naval architectural system power distribution stability analysis of split plant and parallel plant operations, AC fault current analysis, and stability analysis of the complex hybrid motor drive(s) introduced into the current model of the DDG-51 electrical power distribution architecture.
(3) DDG circuit breaker modeling and fault/protection studies. AC circuit breaker modeling was developed for the AQB (type not listed) navy marine circuit breaker(s) with time-curve characteristics and time-delay settings in the Matlab Simulink Environment and simulated to demonstrate functionality with system level integration in the power system environment, while the AC system level current fault analysis was studied on the Matlab Simulink and PSCAD environment to determine proper protection settings and configurations.
(4) The advancement of Naval Combat IFTP – NGIPS MVDC SPS (Integrated Fight Through Power – Next Generation Integrated Power Systems for Naval Medium Voltage Direct Current Shipboard Power Systems). Functionality is performed at naval system level design and modeling/simulation; understanding power electronics, power system and generation, distribution, protection (AC and DC), and system level/localized control theory for future DDG 1000 naval architectures.

Mississippi State University, Dept. of Electrical & Computer Engineering
Graduate Student Research Assistant, Part Time
Mississippi State University, MS United States
08/2005 - 05/2009
Supervisor: Dr. Noel Schulz (7854772517)

Worked under the MSU Department of Electrical & Computer Engineering funded by the Office of Naval Research (ONR). Research was geared into studyingthe all-Electric Ship Project (DDG 1000 & DDX) emphasizing in Medium Voltage DC fault(s) studies,DC & AC circuit breaker implementation and protection,

protection coordination&system architectural control methods using Logic, Power Electronics Devices research and System Level Integration, MVDC Converter Controllers and Controls Analysis, and MVDC Power and Operational Stability.

Northrop Grumman Ship Systems
Graduate Student Intern: Electrical Engineer
07/2008 - 08/2008
Hours per week: 40
Ocean Springs, MS United States
Supervisor: Darren Brick (2288727499)

Worked with Northrop Grumman Engineering Department and performed aninvestigation of Medium Voltage (MV) power systems for a naval combat ship system platform. I compared and contrasted a MVDC system with a 60Hz MVAC system and analyzed the following:
• Dissect naval combat system architecture by system and functionality
• Identified benefits that a DC naval combat ship system brings over a 60 Hz system
• Identified issues that are introduced with a DC medium voltage system
• Identified concerns wrt to a DC system that need further evaluation and pose these as challenge problems for the Integrated Power System (IPS) community to investigate at the Northrop Grumman facility
• Gave a summary report on the overall concept of High Temperature Superconducting Materials being Integrated into naval architecture employment with benefits and risk involvement.

Mississippi State University: Dept. of Electrical and Computer Engineering
Graduate Student Research Assistant
Mississippi State University, MS United States
05/2005 - 09/2005
Supervisor: Dr. Noel Schulz (7854772517)

Worked under Dr. Noel Schulz for a project funded through the TennesseeValley Association (TVA). The project was implemented towards using a simulated environment (C.A.P.E), in which all of the Starkville, MS relay settings on the system were checked & analyzed using protection complied simulations. The results were compared against a master setting sheet so that TVA's database could be updated in case of changes in their engineering protection relay settings. Project involved having knowledge of Electrical Engineering transmission/distribution theory, and being able to read and understand complex and simulated results.

MFJ Enterprise
Electronics Technician
Starkville, MS United States
08/2004 - 08/2005

Worked as an electronics technician that repaired 6 types of power supplymodels. The models were either regulated or switching power supplies. Also, worked as a technician that assembled, machine soldered, procedure tested, boxed tested, and repaired transceiver/transmitter/receiver ham radios (CW and SSB), AC Power Line Noise Meters, 1.8-30 MHz Antenna Bridge, VHF Data Radios APRS (145.02 MHz), 220 MHz Data Transceivers, 6M FM/Data Transceivers (52.525 MHz), 2 Meter FM Signal Analyzers, RX Noise Bridge, SWR Wattmeter, and etc. I also work as a technician for Mirage in which I assembled, machine soldered, procedure tested, boxed tested, and repaired amplifiers for HF, VHF, and UHF. Duties included problem solving/shooting, repair, schematic interpretation/reading and understanding, in-depth knowledge of electronics, cleaning, working with customers, and excellent verbal and communication skills.

Education

Mississippi State University, Mississippi State, MS
Master's Degree 12/2007
GPA: 3.76 of a maximum 4.0
Major: Electrical Engineering

Relevant Coursework:
Coursework for Both Master's Degree and Coursework toward PhD
(PhD is incomplete)
ECE 6613 Power Transmission System
ECE 8223 Analog IC Design
ECE 6633 Power Distribution System
ECE 6713 Computational Architecture
ECE 8990 Special Topic: Compound Semi-Conductor Materials and Devices
ECE 6653 Intro to Power Electronics
ECE 6990 Special Topic: Fiber Optics
IE 8990 Special Topic IE: Optimization Techniques
ECE 6990 Special Topic: Fundamental of High Voltage Engineering
ECE 8990 Special Topic: Power Electronic Applications in Power Systems (FACTS - Flexible AC Transmission Systems)
ECE 8990 Special Topic: Power System Seminar
ECE 8990 Special Topic: Power System Operations and Control
ECE 8990 Special Topic: Shipboard Power Systems
ECE 8623 Stability & Control of Power Systems
ECE 8990 Special Topic: High Voltage Measurement Techniques
ECE 6643 Power System Relay Control
ECE 6663 Insulation Coordination of Power Systems
ECE 6193 Automotive Engineering
ECE 6923 Feedback & Control Systems II (Discrete Systems)
ECE 9000 Research/Dissertation*
Audit: ECE 6913 Feedback & Control Systems I (Analog Systems)

Mississippi State University Mississippi State, MS United States
Bachelor's Degree 05/2004
Major: Electrical Engineering **Minor:** Mathematics

Job Related Training:
1. Shipboard Systems Engineering Course, Calhoon MEBA Engineering School, Easton, MD, 2015
2. 2015 NAVSEA NREDQP First Industrial Tour, Portsmouth Naval Shipyard, May 2015
3. 2010 PSCAD Training, NAVSEA: Naval Surface Warfare Center Carderock Division, Philadelphia, PA.
4. DDG 100 Ship Familiarization Training, July 17th –19th, 2006, Northrop Grumman, Ocean Springs, MS (Examination: Passed)
5. DDG Power Electronic Equipment and Power Distribution Training, July 31st – August 1st, 2006, Northrop Grumman, Ocean Springs, MS (Examination: Passed)
6. Other Annual Trainings are the following: PII (Personal Identifiable Information), IAA (Information Assurance Awareness or Cyber Awareness), and OPSEC (Operations Security Fundamentals), CIAR (Counter Intelligence Awareness Reporting), and many other military GMTs.

Affiliations
ASNE: American Society of Naval Engineers - Student Member, 2007 - 2009
HKN Eta Kappa Nu Electrical Engineering Society - Life Member, 2007 - Present
IEEE: Institute of Electrical and Electronics Engineers, Inc. - Student Member, 2007 – 2009

Computer Programs and Technical
Present Engineering Support Logistics and Ops Access: LHA Team Center Database (RSA SecurID), Citrix (SUPSHIP), and Technical Support Management (TSM)
Present Navy Support Logistics and Ops Access: Navy Reserve Order Writing Systems (NROWS), Fleet Management and Planning Systems (FLTMPS), Navy Reserve Readiness Module (NRRM), and iNAVSEA/iNavy
Past:USGIS (US Government Information Systems) NDE (Navy Data Environment), CM Database (Change Configuration Management Environment), and NAVX & Sir Navigator – NAVSEA PMS317.

Engineering Programs: MATLAB, Simulink ™, C.A.P.E (Computer Aided Protection Engineering), PSCAD/RTDS, P-Spice (Professional & Student), V.T.B (Virtual Test Bed), Cadence (Spectre), Altera Max+plus II, PowerWorld Simulator, Orcad, basic Mathematica, MASM 6.15, Microsoft Visual Studio, LabView, & PFE
Programming and Web Design: Fortran, C, Micro-Assembly (80X86), L.I.N.G.O, HTML
Microsoft Office: Word, Excel, PowerPoint, Access, Outlook, Project

Professional Publications
1. "DC Protection on the Electric Ship," Hymiar Hamilton and Dr. Noel Schulz, IEEE CNF: IEEE Conference Proceeding, IEEE Electric Ship Technologies Symposium, 21–23 May 2007, pgs: 294–300
2. "Impact of Grounding on Overcurrents for a Naval AC/DC Shipboard Power System," Hymiar Hamilton and Noel N. Schulz, IEEE CNF: IEEE Conference Proceeding, IEEE 2007 39th North American Power Symposium, 30th September – 2nd October, 2007
3. "An Approach to Simulating DC Faults in a Naval LVDC Shipboard Power System Using Simulink", Hymiar Hamilton and Dr. Noel Schulz, Proceedings of the American Society of Naval Engineering Conference, 2007
4. MeenakshiGarg, Hymiar Hamilton, Anurag K. Srivastava, and Noel N. Schulz, "DC Fault Analysis Using Simulink and RTDS", IEEE Conference & Exhibition on Control, Communication and Automation (INDICON), Indian Institute of Technology, Kanpur, India, 11-13 December, 2008
5. "An overview of concerns surrounding the implementation of an all-medium voltage direct current (MVDC) next generation integrated power system (NGIPS)", Author: Hymiar Hamilton, Under the Northrop Grumman Corporation: Northrop Grumman Ship Systems - Advanced Capabilities Group, August 2008, pgs: 1-59; Documentation: Classified by the Arms Export Control Act (Title 22, U.S.C., Sec 2751, et. seq.)

Professional References
Available upon request