

ERIC GREENE

Naval Architect and Marine Engineer

EDUCATION

S.B. in Naval Architecture and Marine Engineering, Massachusetts Institute of Technology, 1979

EXPERIENCE

Eric Greene Associates, Inc., President, 1987-Present

Mr. Greene founded Eric Greene Associates, Inc. to advance our understanding of composite materials for marine structures. Engineering advanced materials for marine structures, understanding the performance of composites in fires, composites education and ocean renewable energy are the primary areas of corporate expertise. Eric Greene Associates, Inc. clients range from the recreational megayacht industry to the military, allowing for technology transfer between diverse industries. Mr. Greene authored the highly acclaimed book *MARINE COMPOSITES*, which is available for download at the web site www.EricGreeneAssociates.com. He recently served as Principal Investigator for his sixth Ship Structure Committee project.

Some recent projects include:

- International Electrotechnical Commission (IEC) TC 114, Marine Energy Devices, Materials Subject Matter Expert to Design Standards international committee 62600-2 and Chairman of the U.S. Shadow Committee.
- Assisted Maritime Technical Services in the development of U.S. Coast Guard Inspector training.
- Completed Ship Structure Committee project on Marine Composites Non-Destructive Evaluation under contract with NAVSEA Surface Ship Structural Integrity Branch / SEA 05 P21.
- National Academy of Sciences committee member for Benchmarking the Technology and Application of Lightweighting for DoD Transportation Systems
- Technology transfer assistance for major Norwegian shipbuilder supporting the U.S. Office of Naval Research (ONR) T-Craft program.
- Lecture series in the Netherlands on marine composite construction for the megayacht industry
- Cost modeling of SSC next generation Navy hovercraft for ONR ManTech program
- Development of a “stowable” megayacht helicopter landing platform
- Riser load calculations for a Floating Transit Offloading & Storage platform
- Revision of NAVSEA Technical Publication T9074-AX-GIB-010/100, “Material Selection Requirements,” to include updated guidelines for composites for SEA 05 P24
- Technology Road Map for Shipboard Naval Composites for ONR ManTech program
- Under contract with the American Bureau of Shipping, assisted in the development of the ABS Naval Vessel Rules
- Assisted Maine consortium secure funding for design and construction of a composite alternative to the MK V high-speed craft used by Special Forces with the goal of shock mitigation
- Structural fire protection system development for several megayacht builders
- Fire workshops for the National Association of Marine Surveyors and NASA
- Numerous surveys of recreational boat structural failures

Webb Institute, Adjunct Professor, 2013

Webb offered a course in Composite Materials for seniors during the spring semester. Mr. Greene developed course content and provided 18 hours of lectures on campus. The course material was the culmination of Marine Composites training material developed by Mr. Greene over the past twenty years.

Structural Composites, Inc., Naval Projects Program Manager, 1990-2008

Mr. Greene served as the Program Manager for the DDG-51 Composite Twisted Rudder project. In this capacity, Mr. Greene was responsible for securing \$7 million in funding from various Government resources and managing all technical and programmatic aspects of the project. Previously, Mr. Greene managed an SBIR Phase II project titled “Fire Performance of Composite Materials for Naval Applications.”

Giannotti and Associates, Inc., Naval Architect, 1985-1987

Mr. Greene's responsibilities with this firm started at the level of Project Engineer and graduated to Program Manager. Representative efforts included: management of an omnibus Navy structures contract covering in-house and subcontracted work valued at over \$2.2 million; program direction for a \$1.6 million specialized cargo handling elevator; and management of Navy projects to design and procure a composite foundation test article and a torpedo impact dynamometer.

Severn Companies, Inc., Manager, Marine Systems, 1984-1985

Mr. Greene was responsible for marketing and product development of a microprocessor-based fuel management system for diesel propulsion plants.

Consultant, Naval Architect, 1982-1983

Mr. Greene provided engineering services for offshore racing sailboats of composite construction.

DLI Engineering Corporation, Marine Engineer, 1981-1982

Mr. Greene was involved in test plan preparation, data acquisition and analysis of machinery condition monitoring, shaft alignments and hull structural response of naval surface combatants.

Kiwi Boats, Inc., Naval Architect, 1979-1980

Mr. Greene initiated the in-house engineering capabilities of this world-renowned producer of advanced offshore racing sailboats. Sandwich construction laminates were engineered for vessels to 80' in length, with the largest one tested at MIT for puncture resistance versus an aluminum counterpart.

MEMBERSHIP

Society of Naval Architects and Marine Engineers, member since 1979.

International Electrotechnical Commission (IEC) TC 114, Marine Energy Devices, Subject Matter Expert to Design Standards international committee and Chairman of the U.S. Shadow Committee.

SELECT REPORTS, PRESENTATIONS and PUBLICATIONS

1. "Marine Composites," *Marine Technology*, SNAME, Jersey City, NJ, April 2013
2. "Inspection Technique for Marine Composite Construction," Ship Structure Committee report # 463, March 2012.
3. "Composites for Underwater Systems," presented at the SUBTECH Platform IPT Meeting, 2010.
4. "Composites for Marine Energy Systems," presented at the IEC TC 114 Design Requirements Meeting, 2009 and at Lehigh University, Feb., 2011.
5. "Marina and Boatyard Indoor Rack Storage Sprinkler Protection," with D. J. O'Connor, G. T. Davis, and T. Gardner, The Fire Protection Research Foundation, Quincy, MA, Dec, 2008.
6. "Composites for Renewable Energy, 2008,
http://change.gov/open_government/entry/composites_for_renewable_energy/
7. "U.S. Marine Composites.....think BIG," plenary session at the 4th International Conference on Advanced Engineered Wood and Hybrid Composites, Bar Harbor, ME, 2008.
8. "Built to Last: The Lifespan of Fiberglass Boats," *Composites Manufacturing*, Vol 22, No 10, Oct 2006.
9. "The Future of Composites in Developing Countries," *Composites Manufacturing*, *ibid*.
10. "Labor-Saving Passive Fire Protection Systems for Aluminum and Composite Construction," Ship Structure Committee Report Number SSC-442, NTIS#: PB2005-108998, Publish date: 09/15/2005.
11. "Composite Twisted Rudder," presented at ShipTech 2005, March, 2005 at the Beau Rivage Resort, Biloxi, MS.
12. Full Day Composites Education Course presented at Composites 2004, American Composites Manufacturing Association's Annual Convention, Tampa Convention Center, Oct. 2004.
13. "Large Composite Structures in the U.S. Navy," *Composites Fabrication*, Vol 19, No 7, July, 2003, Composites Fabrication Association, Arlington, VA.
14. MARINE COMPOSITES Overview Course presented at the 6th Annual Multi-Agency Craft Conference at the Naval Amphibious Base, Little Creek, Norfolk, Virginia 18 June 2003
15. "Naval Composites," 2003 International Boat Builders Exhibition, Ft Lauderdale, FL, Feb 2003.
16. "Thermo-Mechanical Testing of Marine Laminates" invited presentation at the Office of Naval Research

17. "Closed Molded Integral Shock Mitigation for Special Operations Craft," presented at the 5th Annual Multi-Agency Craft Conference at the Naval Amphibious Base, Little Creek, Norfolk, Virginia 18 June 2002.
18. "Damage Tolerance of Composites," session at the 2002 International BoatBuilders Exhibition, Ft Lauderdale, FL, Feb 2002.
19. "Composite Structures: The Devil is in the Details," session at the 2001 International BoatBuilders Exhibition, Ft Lauderdale, FL, Feb 2001.
20. "Consideration of Composite Materials for Moderate-Sized Warships," with Loc Nguyen, U.S. Navy NSWCCD, presented at the 8th International Conference on Marine Applications of Composite Materials, Melbourne, FL, March 2000.
21. "Fire Protection in Marine Composites," Professional Boatbuilder, Number 62, December/January 2000, Brooklin, ME.
22. "Composite Shipboard Ventilation Ducting," Defense Manufacturing Conference '98 Technical Session, Nov 30 - Dec 3, 1998, New Orleans, LA.
23. "Fire Performance Issues Associated with Marine Composite Construction," presented at the 7th International Conference on Marine Applications of Composite Materials, Melbourne, FL, March 1988.
24. *MARINE COMPOSITES*, Second Edition, 377 pages, 1998, Annapolis MD.
25. "Design Guide for Marine Applications of Composites," 1997. Ship Structure Committee Report Number: SSC-403, NTIS#: PB98-111651, Publish date: 12/01/1997.
26. "Creating New Markets for the U.S. Marine Composites Industry by Resolving Fire Performance Issues," submitted by request for publication in Advanced Composites magazine.
27. "Fire Performance of Composite Materials for Naval Applications," presented at the Marine Composites Symposium, November 1993, Savannah, GA sponsored by the American Society of Naval Engineers
28. "Fire Performance of Composite Materials for Naval Applications," Contract N61533-91-C-0017, November 12, 1993 for the Naval Surface Warfare Center
29. "Fire Performance of Composite Materials for Naval Applications," MACM '92 Conference Proceedings, March 1992, Melbourne, FL.
30. "Monolithic Composite Periscope Mast," with ARDCO, Inc., SBIR Phase I Final Report, Jan 1991.
31. "Marine Composites: Investigation of FRP in Marine Structures," 1990. Ship Structure Committee report SSC 360.
32. "The Development of a Standard Shipboard Strain Recorder," 1987. SSC-344, Final Report for the Ship Structure Committee.
33. "Procurement Specification (RFP) for a Composite Foundation Test Article," 1987. Prepared for DTNSRDC under contract N00024-85-D-4215.

PARTIAL CLIENT LIST

Advance Ratio Design Company	NAVSEA 05P24
Abex, Inc.	NSWC, Carderock
American Bureau of Shipping	Office of Naval Research
Band, Lavis & Associates	SAIC
Brunswick Corporation	Seaworthy Systems
CASDE Corporation	Ship Structure Committee
Christensen Shipyards, Ltd.	Technologie Centrum Noord-Nederland
Composite Technology Development	U.S. Coast Guard
Davis Consulting Group	Umoe Mandal Shipbuilding
Delta Marine Industries, Inc.	University of California, San Diego
Designers & Planners, Inc.	University of Maine
Derecktor Shipyards	Vail Research & Technology
DuPont Advanced Fiber Systems	Vibration & Sound Solutions, Ltd
Integrated Systems Analysts, Inc	Viking Systems
Lockheed Martin	Webb Institute
Maritime Applied Physics Corporation	Windship/Trident Boatworks
National Academy of Sciences	