

Davis Marine Consulting Associates, LLC
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# GREGORY T. DAVIS Principal greg@dmcallc.com

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Mr. Davis is a Principal at Davis Marine Consulting Associates, LLC as of July 2018. Previously he was a Senior Managing Consultant at Engineering Systems, Inc. (ESi), as well as the Director of the Marine Practice Group. He is the founder and President of Davis and Company Ltd., the nation's leading marine survey and loss investigation firm. He is an internationally recognized expert in marine forensics and marine survey

Mr. Davis is a Fire and Explosion Investigator certified by the National Association of Fire Investigators, and a Marine Surveyor certified by the National Association of Marine Surveyors, Inc. He participated as a guest to the NFPA 921 Fire and Explosion committee to assist in authorship of the then new marine chapter.

He is a member of the Society of Naval Architects and Marine Engineers (SNAME) serving on their O-45 Fire Protection and Safety Panel, MF1 Marine Forensics Panel and is Chair of MF10 Small Boat Forensics. He is a member of the American Boat and Yacht Council (ABYC) having served on their Board of Directors and currently on the Technical Board, the National Fire Protection Association (NFPA) as a permanent member of the NFPA 303 Marinas and Boatyards fire safety standard committee, the International Association of Arson Investigators (IAAI), and other professional organizations.

Mr. Davis has authored numerous articles on marine accidents and surveying that have been published in leading trade journals and at professional symposia. He speaks frequently at boating and marine industry conferences, and has been called upon to provide expert testimony at legal proceedings in state and federal courts.

# **Areas of Specialization**

Marine Forensics and Marine Survey
Marine Accident Investigation and Reconstruction

Phone: 630-235-7881 www.dmcallc.ccom



Failure Analysis, Safety Assessments, and Risk Analysis Marine Fire and Explosion Origin and Cause

#### **Education**

B.A., College of Santa Fe, Santa Fe, New Mexico, 1973

## Certifications

Certified Fire and Explosion Investigator, NAFI (No. 4152-738) Certified Marine Surveyor, NAMS (No. 113-264)

# **Professional Certifications/Affiliations**

#### The American Boat and Yacht Council

Board of Directors, 1999-2005

Technical Board, 2007- present

Hull Performance Project Technical Committee

Gas Detectors Project Technical Committee

ABYC Standards Certification, expires October 31, 2022

ABYC Marine Law Symposium, Completion 2018

# The American Society for Non-Destructive Testing

## The National Association of Fire Investigators

Certified Fire and Explosion Investigator, August 2023

#### The National Association of Marine Surveyors

Certified Marine Surveyor, September 1978

Chair, Education Committee, 2006-2008

Chair, Yachts and Small Craft Technical Committee, 2000-2008

Co-Chair, 41st Annual National Meeting Committee, 2003

# The Society of Naval Architects and Marine Engineers (SNAME)

Technical panel member, O-45: Life Safety and Fire Protection

Technical panel member, MF-1: Forensics Engineering

Technical panel Chair: MF-10 Small Boat Forensics

# The National Fire Protection Association

Permanent Member, NFPA 303: Marinas and Boatyards

Marine Task force (industry Rep)-Marine Chapter, NFPA 921: Fire and Explosion Guide

Research Planning Committee: Hazardous Voltage/Current in Marinas, Boatyards

and Floating Buildings

#### **The National Transportation Safety Board**

Certificate of Training, Marine Accident Investigation, January 2009



#### **The National Marine Manufacturers Association**

Member, Boating Industry Risk Management Council, 1990-2011

#### **Positions Held**

# **Davis Marine Consulting Associates, LLC**

Principal 2018- Present

# Engineering Systems Inc., Ft. Myers, Florida

Senior Managing Consultant, 2012 – 2018

# **Davis Consulting Group, Lisle, Illinois**

Principal, Forensic Consultant, 1995 – 2012

## Davis & Company, Ltd., Lisle, Illinois

President and Founder, 1977 – present

# **Public/Private Sector Committee Service**

Education Committee, The National Association of Marine Surveyors, Inc.

Chesapeake, Virginia, Chair, 2006 – 2008

Yachts & Small Craft Technical Committee, The National Association of Marine Surveyors, Inc.

Chesapeake, Virginia, Chair 2000 - 2008

Communication Committee, The National Association of Marine Surveyors, Inc.

Chesapeake, Virginia, Chair 2002

American Boat and Yacht Council

Edgewater, Maryland, Board of Directors, 1998 – 2005

American Boat and Yacht Council

Annapolis, Maryland, Technical Board, 2007 – present

Hull Performance PTC; Gas Detectors PTC

O-45 Life Safety and Fire Prevention, The Society of Naval Architects and Marine Engineers
Technical Panel Member, 1997 – Present

MF-1 Marine Forensics, The Society of Naval Architects and Marine Engineers, Technical Panel Member, 2014 – Present

MF-10 Small Boat Forensics, The Society of Naval Architects and Marine Engineers, Technical Panel Chair, 2017 - Present

NFPA 303 - Marinas and Boatyards, The National Fire Protection Association Permanent Special Expert Member

NFPA 921- Fire and Explosion Investigation Guide at the request of ABYC and NMMA, participated as the industry representative to the committee panel charged with authoring the Marine Chapter of the guide, Marine Task Force

Yacht Survey Report Standards Committee, The Society of Accredited Marine Surveyors Special Panel Member, 1997



Boating Industry Risk Management Council, National Marine Manufacturers Association Member, 1990 – 2011

Insurance Committee, National Association of Marine Surveyors, Inc.

Chairman, 1982 - 1995

UL Marine ad hoc Committee on Marine Fuel Hose (at the request of UL Marine)
Member, 1986

# **Awards and Recognition**

Certificate of Appreciation, Speaker, National Association of Marine Surveyors, Inc., 1997

Award, Speaker, International Association of Marine Investigators, 1997

Certificate of Appreciation, United States Power Squadron, Mid-Illini Squadron

Bloomington, Illinois, Certificate of Appreciation, Service, 1996

Men of Achievement, 16th ed., International Biographical Centre, Cambridge, England, 1995 Marquis Publications:

Who's Who in the World

Who's Who in America

Who's Who in Science and Engineering

Albert Nelson Marguis Lifetime Achievement Award

Certificate of Appreciation, Service, Tech Cor., Allstate Insurance Company National Training Center, 1992

Certificate of Appreciation, Service, National Association of Marine Surveyors, Inc., 1991 Certificate of Appreciation, Service, United States Power Squadron, Calumet Squadron Calumet, Illinois, 1990

#### **Research Grants**

USCG/ABYC: Swamping, Capsizing, and Sinking of Small Boats

Completed April 2012

NFPA Research Foundation: Marina & Boatyard Indoor Rack Storage Sprinkler Protection, a data analysis co-authored with Dan O'Connor, AON Schirmer Engineering Completed December 2008

# **Professional Development/Continuing Education**

ABYC Marine Law Symposium, Seattle, WA

Professional Development, 2019

ABYC Marine Law Symposium, Charleston, SC

Professional Development, 2017, 2018



Fire and Materials, 15th International Conference and Exhibition, San Francisco, CA,

Professional Development February 2017

Docks and Marinas, University of Wisconsin, Madison; Department of Engineering Professional Development, 2011

Fort Lauderdale Mariners Club, annual marine insurance seminar

Fort Lauderdale, Florida, 2016 – 2017

Houston Marine Insurance, annual seminar

Houston, Texas, 2016 – 2017

Dry Stack Conference, International Marina Institute

Fort Lauderdale, Florida, 2010

International Symposium on Fire Investigation Science and Technology (ISFI)
University of Maryland, 2010

Marine Accident Investigation, (MS101), National Transportation Safety Board, NTSB Academy Washington, DC, 2009

International Symposium on Fire Investigation Science and Technology (ISFI)
University of Cincinnati, 2008

ABYC Standards Accreditation, American Boat and Yacht Council, Inc.

London Surveying Conference, International Institute of Marine Surveying

Institute of Marine Engineering and Science Technology

National Association of Marine Surveyors, joint conference

London, England, 2005

National Seminar on Fire Analysis Litigation, National Association of Fire Investigators, Inc. 2003

ABYC Standards Accreditation, American Boat and Yacht Council, Inc.

2002, 2007, 2012, 2017

Advanced Arson Seminar, Reading the Fingerprint of Fire

MABAS Division 10 and Illinois Chapter

International Association of Arson Investigators, St. Louis

1995- Speaker on Marine Fire Investigation

Accidents: From the Scene to the Trial, Sponsored by the American Boat and Yacht Council 1994

Advanced Arson Investigation Course, Sponsored by MABAS Division 10 and Illinois Chapter International Association of Arson Investigators 1994

Determining the Cause and Origin of Fires and Explosions Training Seminar, Sponsored by National Fire Protection Association and National Association of Fire Investigators 1993

Advanced Fire Investigation Seminar, Sponsored by MABAS Division 10 and Illinois Chapter International Association of Arson Investigators
1992



Atlantic Marine Surveyors-Blistering and Laminate Failures in Fiberglass Boat Hulls
1988

American Boat and Yacht Council-DC Electrical Systems in Boats, 1990 Corrosion Seminar, The Nickel Institute
1989

### **Publications/Presentations**

"Use of Simulation and Animation in Forensic Investigations of Vessel Accidents", Kenneth M. Smith, Jr, PE (M), Principal at GOAT Forensics, Lake Havasu City AZ; Gregory T. Davis, (M), Davis Marine Consulting Associates, LLC (DMCA), Tesuque, NM; Lance E. Rewerts, Ph.D. (V), Engineering Systems Inc., Ames, IA; Daniel J. Turner, PE (M), Engineering Systems Inc., Houston, TX, SNAME SMC 2020, Houston, TX, October 2020.

"SNAME Guidelines for Recreational Power Boat Stability", By SNAME MF10 Small Boat Forensics Panel, Gregory T. Davis Chair, at SNAME/IBEX Small Boat Technology Symposium, September 30, 2019.

"Capsizing, Swamping and Sinking of Small Boats," by Richard H. Akers, NA, PE, Gregory T. Davis and John D. Flaig, MSME. USCG, Office of Boating Safety: Grant 1902.05 April 19, 2012

"Marina and Boatyard Indoor Rack Storage Sprinkler Protection," Co-Author (DCG) with Schirmer Engineering, research project report completed for the National Fire Protection Association Research Foundation December 16, 2008

# **Technical Journals Authored**

Proceedings: 4th International Marine Applications of Composite Materials Conference NAMS NEWS

Technical Information Exchange for Marine Professionals

Composites Fabrication, Composites Fabrication Association Magazine

Proceedings: 6th International Marine Applications of Composites Materials Conference Proceedings: 7th International Marine Applications of Composites Materials Conference ABYC NEWS

The Business of Pleasure Boats, National Marine Bankers Association newsletter Investigator, International Association of Special Investigation Units (IASIU) Michigan Chapter magazine, Vol. 4 Issue 2, May 2004

#### **Technical Presentations**

ABYC Marine Law Symposium, Seattle, WA. January 2019, Speaker, "Case Study #2 Walkowicki v Creative Yacht Management, LLC"



- ACI Admiralty and Maritime Claims Conference, Houston, Texas, February 2015, Topic Panelist "Marine Insurance and Indemnity Issues: Good and Bad Faith and the Duty to Defend/ Indemnify;" "The Enforceability of Indemnity and Additional Assured Provisions;" "New Developments in Surveying, General Average Adjusting and Loss Control Engineering;" and "The Latest Nuances in Cargo Claims"
- "Why do welds fail?" Session #407, Co-Presenter with Mark Hineman, P.E., Engineering Systems Inc., and Roberto Scalvini, Marine Survey Bureau; International Boat Builders Exposition and Conference (IBEX), October 2012
- "Recreational Boating Collision Accident Reconstruction," SNAME International Marine Forensics Symposium, April 2012
- "Understanding Fire Risks of Marina Dry Storage Facilities," Co-Presenter, International Marina Institute Dry Stack Conference, Fort Lauderdale, Florida, October 2010
- "Understanding Marina Dry Storage Facilities," Co-Presenter, National Fire Protection Association Annual Conference, Chicago, Illinois, June 2009
- "How Boats Get Broken, a Review of the 'Davis' Relational Database," Boating Industry Risk Management Council, National Marine Manufacturers Association, Miami International Boat Show, Miami, Florida, February 2009
- "Beyond the Bard, a Look at Alternate Accident Databases," Panelist USCG Accident Mitigation meeting, Miami International Boat Show, Miami, Florida, February 2009
- "The Condition and Value Survey," National City Bank Recreation Finance Service Company Symposia, Chicago, Illinois, July 2005
- "Boat Owner Losses," PLRB (Property Loss Research Bureau) Claims Conference and Insurance Services Expo 2005, San Antonio, Texas, April 2005
- "Marine Surveyors -- Investigators or Not?" International Association of Arson Investigators, 55th Annual Meeting & Conference, St. Louis, Missouri, April 2004
- "Boat Owner Losses," Property Loss Research Bureau 2004 Claims Conference & Insurance Expo, Chicago, Illinois, March 2003
- "Origin and Cause- Appraisals on Boat Losses," Speaker at the National Association of Subrogation Professionals annual conference, Reno, Nevada, November 2003



- "Non-Destructive Evaluation (NDE) for Surveyors," panelist at IBEX (International Boat Builder Exposition and Conference), Miami Beach, Florida, October 2003
- "Alternate Dispute Resolution," panelist at IBEX (International Boat Builder Exposition and Conference), Miami Beach, Florida, October 2003
- "Evidence Collection- Spoliation and Other Issues- How Does ASTM Deal With This Experts Quagmire?," NAMS 41 Annual National Marine Conference East, Chicago, Illinois, April 2003
- "Boat Owner Losses." Property Loss Research Bureau 2003 Claims conference & Insurance Expo, Orlando, Florida, April 2003
- "Boat Fire Investigation," Wisconsin Arson Claims Council, Greenfield, Wisconsin, May 2002
- "The Electricity Challenged Boatyard," International Boatbuilders Exhibition and Conference (IBEX), Ft. Lauderdale, Florida, February 2002
- "Marine Accident Investigation," Instructor, The American Boat and Yacht Council, Inc., Accident Investigation Seminars: Ft. Lauderdale, Florida, April 1998; Long Beach, California, October 1998; Annapolis, Maryland, March 1999; Chicago, Illinois, October 1999; Seattle, Washington, December 2000
- "Establishing a Good Working Relationship with a Marine Surveyor," The American Boat Builders and Repairers Association, Providence, Rhode Island, September 1998
- "Plastic Bag Overheat Syndrome," Marine Applications of Composite Materials 7th International Conference, Melbourne, Florida, March 1998
- "Outdrive Failure Diagnosis," and "FRP Repair Estimating," The Society of Accredited Marine Surveyors Pacific Region Conference, Vancouver, British Columbia, Canada, April 1997
- "The Internet as an Advertising and Business Communication Tool," The National Association of Marine Surveyors 35th Annual Conference, New Orleans, Louisiana, March 1997
- "Marine Accident Reconstruction," The International Association of Marine Investigators, Annual training seminar, St. Louis, Missouri, March 1997
- "Risk Exposures of a Marine Surveyor and How to Insure Against Them," The National Association of Marine Surveyors 34th Annual Conference, Houston, Texas, April 1996



- "Marine Fire Cause and Origin Investigation," TechCor (the educational division of Allstate Insurance Co., Special Investigations Unit) advanced training class, Wheeling, Illinois, April 1996; returning lecturer since 1989
- "In-Service Failures from the Marine Surveyor's Point of View," Marine Applications of Composites Materials 6th International Conference, Cocoa Beach, Florida, March 1996
- "Marine Surveying," United States Power Squadron, Mid-Illini Squadron, Bloomington, Illinois, January 1996
- "Advanced Boating Course," State Farm Insurance Illinois Office, Bloomington, Illinois, course agenda and presentation responsibilities, Chicago, Illinois, January 1996
- "Lenders and Marine Surveys: Assessing Your Collateral," panelist representing NAMS, National Marine Bankers Association, member conference, Chicago, Illinois, October 1994
- "Boat Damage, is it Preventable?," USPS District 20 Annual Meeting, 'N' club, Deerfield, Illinois, March 1994
- "Marine Survey, Safety First," USPS Chicago Squadron, Wilmette Harbor, Evanston, Illinois, March 1994
- "Boat Damage, is it Preventable?," MORF, Burnham Harbor, Chicago, Illinois, February 1994
- "Boat Fires, Accidental and Arson, Multiple Automatic Box Alarm System (MABAS)," Division 10, Advanced Fire Investigation Seminar (sanctioned by the Illinois chapter of the International Association of Arson Investigators), Darien, Illinois, November 1992
- "Investigating Marine Claims, Rural Insurance Company," Annual Claims Seminar, Fond du Lac, Wisconsin, June 1992
- "In-Service Failures, From the Marine Surveyor's Point of View," The Fourth International Marine Applications of Composite Materials Conference, Florida Institute of Technology, Melbourne, Florida, March 1992
- "Interpreting Marine Surveys Who, What, When, Where, Why and How," American Marine Underwriting Managers, Conference on Marine Underwriting, Milwaukee, Wisconsin, February 1992



- "Small Boats and Their Power Systems, An Overview," Milwaukee Insurance Company, Milwaukee, Wisconsin, September 1991
- "The Small Craft Condition and Value Survey," Small Craft Underwriting Seminar, Kemper Insurance Company, Miami, Florida, February 1990
- "Marine Surveying, What is it About?," The United States Power Squadron, District 20 annual conference, Schaumburg, Illinois, January 1990
- "Coal-Ocean/Inland Waterways Transit Problems," The Chicago Ocean Marine Underwriters Association, Chicago, Illinois, April 1982
- "A Look into the Handling of Inland Transportation Claims," Western Loss Association, Chicago, Illinois, March 1982
- "Basic Considerations in the Adjustment of Damage Losses on Fiberglass Reinforced Plastic Boats," State Farm Insurance Companies, Adjusters Seminar, Chicago, Illinois, June 1978

# **Select Project Experience**

Mr. Davis's past Marine projects sometimes have required a determination of the state and condition or value of a vessel for owners, insurers, investment banks, or underwriters. Sometimes these investigations are reported as part of cases leading to litigation involving disputes of valuation, condition, and state of compliance with applicable Government Regulation, ABYC Standards and Classification Society rules. These types of projects have included new construction progress, acceptance for service, in-service condition, assessments of damage after collisions, fires or machinery failures, and salvage value. Clients have relied on Mr. Davis's assessment of suitability for intended service and condition as key inputs in a value determination.

Mr. Davis has investigated and reported on underlying causes of accidents and incidents including marine equipment and machinery, vessel and marina fires, collisions, personal injury accidents, and fatalities in the marine environment. These investigations include assessments of material condition, practices of the mariners involved, and suitability of the design, condition, and uses of the vessels and machinery involved.

Applying the investigative experience, Mr. Davis has provided consulting services to clients to assist in avoiding consequential incidents by reviewing product design, testing, and product selection for intended service. He has also been contracted to do research in certain areas



relevant to vessel and marina design and safety by the U.S. Coast Guard and the National Fire Protection Association (NFPA).

Mr. Davis has been involved in projects for assessing safe cargo transport and shipping practices, and other issues, on the following types of vessels:

Recreational Boats
Barges/Lighters
Freight Carriers
Planning Craft/Ski Boats
Tow and Tug Boats
Passenger Ferries
Fishing Vessels
Offshore/Oil Patch Vessels
Passenger Ships
Motor Yachts
Product and Chemical Carriers
Floating Casinos
Sailing Yachts
Container Ships
Specialty Barges

Mega Yachts Barges/Lighters Freight Carriers

Vessels investigated have included those working in the following types of waters, which cause different sets of regulations to apply:

Private Waterways
Rivers
Inland Waterways
Continental Shelf/Gulf of Mexico
Great Lakes
International Waterways

A sample of some recent projects include:

Recreational Boat sinking with fatalities accident reconstruction Mega Yacht Builder Warranty Claims





Marina Hurricane Preparation **Deck Barge Sinking** Marina Drowning **Deck Barge Allision Dredging/Recreational Boat Allision** Dry Dock Loss Dispute **Product Safety Analysis** Recreational Yacht Explosion Research, Small Boat Stability Regulation Recreational Yacht Fire with Fatalities Research, Sprinkler Safety and Boat Storage Recreational Yacht Carbon Monoxide Fatality Engine Analysis (Diesel and Gasoline) Electro-Shock Injury/Death Investigation Marine Transmission Controls Recreational Yacht Sinking Marina Hurricane Preparation