

Mark A. Thornton



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Mark Thornton has been sailing for more than 30 years and currently owns *Osprey*, a C&C 35. His interest in weather forecasting grew from his experiences cruising and racing on the Great Lakes. Mark is a 2006 graduate of the Penn State University *Certificate of Achievement in Weather Forecasting*, a two-year program that develops skills in general, tropical, and severe weather forecasting.

He is the president of LakeErieWX Marine Weather, a company dedicated to providing marine weather education and forecasting resources for recreational boaters (www.lakeeriewx.com). Mark publishes a marine weather blog and teaches marine forecasting seminars to recreational boaters during the off-season. He has served as the Race Meteorologist for the Bayview Mackinac Race since 2014. Mark is also employed as a Teaching Assistant in the *Certificate of Achievement in Weather Forecasting Program* at Penn State University.

Seminars – Webinars – Presentations

2021

- Cross Currents Sea Kayaking, *Weather Forecasting For Paddlers*, 3 part webinar
- Sail Chicago, *Marine Weather 101*, 3 part webinar
- Sail Newport, *Understanding & Avoiding Thunderstorms*, 3 part webinar
- Great Lakes Cruising Club, *Marine Weather Essentials*, 4 part webinar
- The Power of Water, *Weather Forecasting For Paddlers*, 3 part webinar
- Bayview Yacht Club, *Weather Routing For Long Distance Racing*, 3 part webinar
- Milwaukee Yacht Club, webinars on marine weather topics
- Great Lakes Cruising Club, *Understanding & Avoiding Thunderstorms*, 2 part webinar
- Great Lakes Cruising Club, *Tropical Weather Forecasting* webinar
- Great Lakes Cruising Club, *Weather Apps* webinar

2020

- Chicago Boat Show, *Understanding & Avoiding Great Lakes Thunderstorms*
- Chicago Boat Show, a variety of presentations on marine weather topics
- Great Lakes Cruising Club, *Weather Savvy Mariner*, 4 part webinar series
- Cross Currents Sea Kayaking, *Marine Weather Forecasting For Paddlers*, a one-day seminar

- The Foundry, *Understanding & Avoiding Great Lakes Thunderstorms*
- Bayview Yacht Club, *Great Lakes Marine Weather Forecasting*, a one-day seminar
- Great Lakes Cruising Club, *Weather Savvy Mariner*, 4 part webinar series
- Great Lakes Cruising Club, *Weather Forecasting Apps* webinar
- Great Lakes Cruising Club, *Tropical Weather Forecasting* webinar
- Great Lakes Cruising Club, *Understanding & Avoiding Great Lakes Thunderstorms*, 2 part webinar
- *Weather Routing For Long Distance Racing*, 2 part webinar
- Columbia Yacht Club, *Marine Weather 101*, 3 part webinar

2019

- Chicago Boat Show, *Creating Your Chicago Mac Weather Forecast*, a one-day seminar
- Chicago Boat Show, a variety of presentations on marine weather topics
- The Foundry, *Basic Great Lakes Marine Weather Forecasting*
- Great Lakes Cruising Club, *Weather Savvy Mariner*, 4 part webinar series
- Edgewater Yacht Club, *Great Lakes Marine Weather Forecasting*, 3 part series
- Columbia Yacht Club, *Great Lakes Marine Weather Forecasting*, a one-day seminar
- Larsen Marine, *Understanding, Forecasting & Avoiding Thunderstorms*
- Cruisers University, Annapolis Boat Shows, *Marine Weather Forecasting*, 2-day master class
- Cruisers University, Annapolis Boat Shows, a variety of presentations on marine weather forecasting
- The Foundry, *Basic Great Lakes Marine Weather Forecasting*

2018

- Strictly Sail Chicago, *Basic Great Lakes Marine Weather Forecasting*, a one-day seminar
- Strictly Sail Chicago, a variety of one-hour presentations on marine weather topics.
- Bayview Yacht Club, *Basic Great Lakes Marine Weather Forecasting*, a one-day seminar
- Edgewater Yacht Club, *Basic Great Lakes Marine Weather Forecasting*, Weather Savvy Wednesdays
- Great Lakes Cruising Club, *Weather Savvy Mariner*, four-part webinar series
- South Shore Yacht Club, *Basic Great Lakes Marine Weather Forecasting*, a one-day seminar
- Edgewater Yacht Club, *Basic Great Lakes Marine Weather Forecasting*
- Edgewater Yacht Club, *Great Lakes Wind Forecasting: A Workshop for Sailors*
- Cruisers University, Annapolis Boat Shows, *Marine Weather Forecasting*
- Kadey Krogen Rendezvous, *Weather 101: Improving Safety and Comfort With SiriusXM Marine*
- Cruisers University, Annapolis Boat Shows, *Marine Weather Forecasting*

2017

- Strictly Sail Chicago, *Basic Great Lakes Marine Weather Forecasting*, a one-day seminar
- Strictly Sail Chicago, a variety of presentations on marine weather topics.
- Edgewater Yacht Club, *Basic Great Lakes Marine Weather Forecasting*, Weather Savvy Wednesdays
- Columbia Yacht Club, *Basic Great Lakes Marine Weather Forecasting*, a one-day seminar
- Great Lakes Cruising Club, *Weather Savvy Mariner*, four-part webinar series
- Cruisers University, Annapolis Boat Shows, *Marine Weather Forecasting*

2016

- Strictly Sail Chicago, *Great Lakes Wind Forecasting: A Workshop for Sailors*, a one-day seminar

- Strictly Sail Chicago, *Basic Great Lakes Marine Weather Forecasting*, a half-day seminar
- Strictly Sail Chicago, a variety of presentations on marine weather topics
- US Sailing Leadership Conference, *Thunderstorms: A Primer for Coastal and Inland Boaters*
- Ohio Division of Watercraft, *Basic Great Lakes Marine Weather Forecasting*, a half-day seminar
- Great Lakes Cruising Club, *Weather Savvy Mariner*, four-part webinar series
- Edgewater Yacht Club, *Basic Great Lakes Marine Weather Forecasting*, Weather Savvy Wednesdays
- Columbia Yacht Club, *Basic Great Lakes Marine Weather Forecasting*, a one-day seminar
- Macatawa Bay Yacht Club, *Great Lakes Wind Forecasting: A Workshop For Sailors*, a one-day seminar
- Bayview Yacht Club, *Great Lakes Wind Forecasting: A Workshop For Sailors*, a one-day seminar
- Detroit Yacht Club, *Basic Great Lakes Marine Weather Forecasting*, a one-day seminar
- Chicago Yacht Club, *Basic Great Lakes Marine Weather Forecasting*, a one-day seminar
- Cruisers University, Annapolis Boat Shows, Coastal Marine Weather Forecasting

2015

- Strictly Sail Chicago, a variety of presentations on marine weather topics.
- Strictly Sail Chicago, *Great Lakes Wind Forecasting: A Workshop for Sailors*, a one-day seminar
- Great Lakes Cruising Club, *Doppler Weather Radar: A Boater's Best Friend*, webinar
- Sailing Education Association of Sheboygan, *Basic Marine Weather Forecasting*, one-day seminar
- Great Lakes Cruising Club, *Thunderstorms: A Guide for Coastal and Inland Sailors*, webinar
- South Shore Yacht Club, *Great Lakes Wind Forecasting: A Workshop For Sailors*, a one-day seminar
- Bayview Yacht Club, *Preparing Your Bayview Mac Forecast*, a one-day seminar
- Great Lakes Cruising Club, *The Invisible Forces Controlling The Wind*, webinar
- North Star Sail Club, *Great Lakes Wind Forecasting: A Workshop For Sailors*, a one-day seminar
- Wayzata Yacht Club, *Great Lakes Wind Forecasting: A Workshop For Sailors*, a one-day seminar
- Cruisers University, Annapolis Boat Shows, Coastal and Offshore Marine Weather Forecasting.
- Macatawa Bay Yacht Club, *Basic Marine Weather Forecasting*, one-day seminar
- Cruisers University, Annapolis Boat Shows, *Coastal and Offshore Marine Weather Forecastin*.
- Great Lakes Cruising Club, *Basic Marine Weather Forecasting*, half-day seminar

2014

- Strictly Sail Chicago, a variety of presentations on marine weather topics.
- Grand Traverse Yacht Club, *Basic Marine Weather Forecasting*, one-day seminar
- Grand Traverse Yacht Club, *Advanced Wind Forecasting: A Workshop For Sailors*, one-day seminar
- Edgewater Yacht Club, *Advanced Wind Forecasting: A Workshop For Sailors*, one-day seminar
- Bayview Yacht Club, *Advanced Wind Forecasting: A Workshop For Sailors*, one-day seminar
- Sandusky Sailing Club, *Advanced Wind Forecasting: A Workshop For Sailors*, one-day seminar
- Safety At Sea, Chicago Yacht Club, *Marine Weather Primer*
- Cruisers University, Annapolis Boat Shows, *Coastal and Offshore Marine Weather Forecasting*
- Port Clinton Yacht Club, *Basic Marine Weather Forecasting*, one-day seminar
- Great Lakes Cruising Club, *Doppler Weather Radar: A Boater's Best Friend*, webinar

2013

- Sandusky Sailing Club, *Basic Marine Weather Forecasting*, one-day seminar
- Chicago Yacht Club, *Advanced Wind Forecasting: A Workshop for Sailors*, one-day seminar

- Grand River Sailing Club, *Basic Marine Weather Forecasting*, half-day seminar
- Erie Yacht Club, *Basic Marine Weather Forecasting*, one-day seminar
- Bay City Yacht Club, *Advanced Wind Forecasting: A Workshop for Sailors*, one-day seminar
- Edgewater Yacht Club, *Basic Marine Weather Forecasting*, one-day seminar
- Lorain Sailing and Yacht Club, *Basic Marine Weather Forecasting*, one-day seminar

2012

- Passenger Vessel Association, *Tragedy Strikes the 2011 Chicago-Mac*
- Catawba Island Club, *Basic Marine Weather Forecasting*, one-day seminar
- Grand River Sailing Club, *Tragedy Strikes the 2011 Chicago-Mac*, presentation
- Chicago Yacht Club, *Basic Marine Weather Forecasting*, one-day seminar
- 20th Annual Great Lakes Operational Meteorology Conference Presentation, *Tragedy Strikes the 2011 Chicago-Mac*. Received the *Brian Murphy Award* for most noteworthy presentation.
- Bay City Yacht Club, *Basic Marine Weather Forecasting*, one-day seminar
- Edgewater Yacht Club, *Basic Marine Weather Forecasting*, one-day seminar
- Northeast Ohio Chapter of the American Meteorological Society, *Tragedy Strikes the 2011 Chicago-Mac*
- Lorain Sailing and Yacht Club, *Basic Marine Weather Forecasting*, one-day seminar.

2011

- Coast Guard Auxiliary “About Boating Safely” class presentation, *Basic Marine Weather*
- Junior Fleet at Lorain Sailing & Yacht Club, *Basic Marine Weather*, presentation.
- Edgewater Yacht Club, *Basic Marine Weather Forecasting*, one-day seminar
- Lorain Sailing and Yacht Club, *Basic Marine Weather Forecasting*, one-day seminar

2010

- Edgewater Yacht Club, *Basic Marine Weather*, half-day seminar
- Sandusky Sailing Club, *Basic Marine Weather Forecasting*, two-day seminar
- Lorain Sailing & Yacht Club, *Basic Marine Weather*, presentation

2009

- Cleveland Amateur Boatbuilding and Boating Society, *Basic Marine Weather*
- Sandusky Sailing Club, *Basic Marine Weather*
- Northeast Ohio Chapter of the American Meteorological Society, *Radar: A to dBZ*

Miscellaneous Activities

- Race Meteorologist, Bayview Mackinac Race, July 2020
- Race Meteorologist, Bell’s Beer Bayview Mackinac Race, July 2019
- Race Meteorologist, Bell’s Beer Bayview Mackinac Race, July 2018
- Race Meteorologist, Para World Championship, Sheboygan, WI, September 2018
- Race Meteorologist, Bell’s Beer Bayview Mackinac Race, July 2017
- Race Meteorologist, 92nd Bell’s Beer Bayview Mackinac Race, July 2016
- Race Meteorologist, Bell’s Beer Bayview Mackinac Race, July 2015

- Race Meteorologist, Bell's Beer Bayview Mackinac Race, July 2014
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Articles and Publications

- A Little Too Much Excitement on Narragansett Bay (2020)
- Weather Forecast Models 101 – Forecasting A High Wind Even (2020)
- Weather 101 – Thunderstorms Resources (2020)
- Hurricane Force Winds On Lake Erie (2019)
- Lake Breeze Enhanced Thunderstorms (2019)
- Clearing Up Clouds (2018)
- Chaff on Radar? (2018)
- A One-Two Weather Punch: The Sunday Morning Cold Front (2017)
- A Tale of Two Downbursts (2017)
- A Rare Weather Event During the 2017 Chicago-Mac (2017)
- Doppler Weather Radar: A Boater's Best Friend (2017)
- Deciphering Surface Weather Maps-Part 2 (2017)
- Deciphering Surface Weather Maps-Part 1 (2017)
- A Little Excitement on Race Night: August 24, 2016 on Lake St. Clair (2016)
- A Challenging Start to the 2016 Chicago-Mac (2016)
- Doppler Weather Radar: It Isn't Live But It's Getting Better (2016)
- Understanding Meteorological Time (2016)
- Sloshing and Surfing on Lake Erie (2016)
- Trans Superior International Yacht Race: Weather Resources (2015)
- 2015 Mills Invitational Trophy Race: A Meteorological Summery (2015)
- Tragedy Strikes the 2015 Dauphin Island Race (2015)
- Bell's Beer Bayview Mackinaw Race: Weather Resources (2015)
- Chicago Yacht Club's Race to Mackinaw: Weather Resources (2015)
- Feeling the Pressure: A Primer on Barometers (2014)
- Doppler Weather Radar: When Storms Aren't Storms (2014)
- A New Spin On Waterspout Forecasting (2014)
- Dramatic Differences: The Effects of Lake Temperature on Gusty Winds (published July 2014)
- Marine Model Output Statistics: A Unique Wind Forecasting Resource (July 2014)
- Superstorm Sandy and Lake Erie (November 2013)
- Safety Thursday articles for the Chicago Yacht Club addressing weather resources for the club's annual Race to Mackinac. (Part 1—May 30; Part 2—June 20)
- Memorial Day 2012: An Unexpected Wind (September 2012)
- Opti National Championship Regatta Waterspout (July 2012)
- Chicago-Mackinac Sailboat Race: 2011 (August 2011) Special Note: My report was referenced by the US Sailing Inquiry Into The Chicago Yacht Club-Race To Mackinac Capsize And Fatalities published in October 2011.
- Forces Governing the Wind (July 2011)
- *A Wet Spring in Northern Ohio* (July 2011)
- *2010 Lake Ontario 300 Challenge* (May 2011)

- *Lake Erie Ice Transitions* (March 2011)
- *A Marina Takes a Hit: Thunderstorm Outflow* (September 2010)
- *Echo Tops on Doppler Radar Imagery* (August 2010)
- *A Stormy Trip* (August 2009)
- *Splitting Supercell Thunderstorm* (April 2008)
- *Lake Erie Displacement—December 23-24, 2007* (March 2008)
- *Chaff on Doppler Weather Radar* (March 2008)
- *Concentric Rings on Radar Imagery* (January 2008)
- *Ship Tracks (Plumes) on Visible Satellite Imagery* (December 2007)
- *March 30, 2006 -Tornado Watch # 110* (April 2006)
- *March 12, 2006 Severe Weather Outbreak* (April 2006)
- *February 16, 2006 Severe Weather Outbreak* (March 2006)
- *December 22-23, 2004 Winter Storm* (February 2006)
- *Hurricane Wilma* (December 2005)
- *India's Summer Monsoon* (November 2005)
- *General Circulation in the Southern Hemisphere* (October 2005)
- *Hurricane Charley* (September 2005)

Educational Achievements and Activities

- 20th Annual Great Lakes Operational Meteorology Conference presenter, National Weather Service, March 2012. Presentation *Tragedy Strikes the 2011 Chicago-Mac* received the *Brian Murphy Award* for the most noteworthy presentation.
- 19th Annual Great Lakes Operational Meteorology Conference, National Weather Service, March 2011.
- 18th Annual Great Lakes Operational Meteorology Conference, National Weather Service/Environment Canada, March 2010.
- College of DuPage Severe Weather Symposium, November 2009.
- The 7th Annual Great Lakes Meteorology Conference, Valparaiso University, March 2009.
- National Severe Weather Workshop, Storm Prediction Center/National Weather Service, March 2009.
- The AMS 24th Annual Severe Local Storm Conference, American Meteorological Society, October 2008.
- Great Lakes Operational Meteorology Conference, National Weather Service, September 2007.
- Ranked 58 of 1258 competitors in the *Fall 2006 WX Challenge*, a collegiate weather forecasting competition.
- Graduate of the *Certificate of Achievement in Weather Forecasting* program, Penn State University, December 2006.