



safe boating hints on

TOMALES BAY



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Tomales Bay

Tomales Bay opens into the Pacific at the southern end of Bodega Bay in Marin County. Tomales Bay extends southeastward for approximately 12 miles. Much of the area near the mouth of the bay is shallow and the water frequently is rough.

The *Pacific Coast Pilot*, published by the National Ocean Survey includes a strong word of caution for boaters in this area: "The entrance bar is dangerous and should not be attempted by strangers."

In one year alone, 13 boaters lost their lives here. Most of them were unfamiliar with the problems unique to this area. The combination of tide, weather, and a shallow entrance bar can be hazardous to any boat. An analysis of accident reports showed that the loss of some craft was caused by large breaking waves in the shallow area. These breakers can capsize small craft.

There may be little warning of the first breakers, as they sometimes develop in a calm sea from gentle swells. As one survivor described it, "We were fishing at the entrance to Tomales Bay. The water was calm. All of a sudden a high wave appeared out of nowhere, crashed down on us, capsized our boat, and threw us into the water."

The entrance to Tomales Bay should not be used for fishing, but for transit only. Local boaters say that the sudden appearance of breakers in a calm sea is common. Because such waves appear with little warning, they are called "sneaker waves."

Cause of the Sneaker Wave

Breakers in the shallow area around the entrance to the Tomales Bay bar result from the drop in the water level after high tide and the outrush of water during the ebb. Because of these factors, ocean swells turn into breakers when they reach the bar, just as they do when they reach a shoreline.

The formation of the sneaker wave is dependent upon the water depth, the size of the swell and the speed of the ebb current. Sneaker waves should always be expected during an ebb tide if the tidal drop exceeds five feet, even when the ocean swell is imperceptible.

After the First Sneaker Wave

The sneaker wave is usually followed by other waves and breakers, and the entire bar area may become rough. In fact, the occurrence of rough water in this area in the afternoon, even after a calm morning, can be expected due in part to strong afternoon winds.

How to Avoid the Sneaker Wave

As the sneaker wave occurs primarily during the ebb tide, boaters should plan to leave the area before the tide changes. Local boaters advise, "Before the tide starts going *out*, be on your way *in*." Boaters who find their return cut off by rough water should be prepared to remain outside until the rough water subsides or go to another harbor, such as Bodega.

Tidal Currents

While the exact time the first breaker will form may not be predictable, the time of its probable occurrence can be estimated by consulting a tide table.

In determining when to start back, the operator should also consider the swiftness of the outgoing current, which may reach a velocity of 6 mph. Operators of sailboats or motorboats with low power must consider the special limitations of their craft.

Little Boats Can Cause Big Problems--Stability

Capsizings, sinkings and falls overboard, which account for 70 percent of boating fatalities, are directly related to the lack of stability of small boats. Too much weight in one area of a boat will reduce freeboard (the portion of the boat above the waterline), and may cause an otherwise stable boat to capsize. If the boat is equipped with a capacity plate, follow the manufacturer's recommendation for maximum weight capacity. Weighing all passengers and gear may be necessary. Ensure that movable gear is properly stowed so that the boat is trim, and the weight will not shift during the voyage.

If Your Boat Capsizes

Sudden immersion in cold water can cause problems ranging from hyperventilation to heart attack that can result in helplessness and drowning. A life jacket will keep you afloat until help arrives. Warm layered clothing can offer some protection from hypothermia, the life-threatening lowering of the core body temperature caused by cold-water exposure. If you find yourself unexpectedly in the water, do not panic. Locate other passengers and offer assistance. Most likely, the boat will be floating. An unconscious person should be lashed to the boat if the boat is not in danger of sinking. Get in or on the boat to get out of the water. Unless you can safely reach shore, which is usually more distant than it appears, stay with the boat until help arrives.

Tomales Bay Entrance

1. Local boaters familiar with this area can advise you on conditions likely to be encountered.
2. The predicted time of the flood and ebb tides (available in tide tables) can be of assistance in planning your return trip into Tomales Bay.
3. Coastal fog can form and move in rapidly.
4. Weather information is available from the National Weather Service, by calling (831) 656-1725, or over the Internet at <http://www.nws.noaa.gov>, or via VHF marine radio at 162.400 MHz.
5. Recommended equipment and information: a compass, cellular phone, marine radio, GPS or LORAN, and other navigational equipment or aids, such as *U.S. Coast Pilot #7* and nautical Chart #18643.
6. File a "float plan" with a responsible person who will notify authorities if you do not return from your trip when expected.



When You Need Assistance

The U.S. Coast Guard maintains a station in Bodega Bay Harbor at the northern end of Bodega Bay. For assistance and search-and-rescue purposes, the Coast Guard monitors Channel 16 (156.8 MHz) VHF-FM. The Coast Guard station telephone number is (707) 875-3596.

However, the quickest remedy may be to seek the aid of a passing boat. Federal law requires that vessels operating on coastal waters and on the high seas carry the required number of visual distress signaling devices. Recreational boats of 16 feet or more in length must carry suitable devices at all times. Boats of less than 16 feet; manually propelled craft of any size; and sailboats of completely open construction not equipped with propulsion machinery and under 26 feet in length are only required to carry suitable signaling devices between sunset and sunrise. All the devices must be Coast Guard approved, readily accessible, and in serviceable condition.

For Added Safety

The wearing of life jackets by all persons on board is recommended in the Tomales Bay area. Children 11 years of age or younger must wear their life jackets when aboard a vessel of 26 feet or less in length, while the vessel is under way. Exceptions: if the child is in an enclosed cabin or, on a sailboat, if the child is tethered to the boat. Common sense dictates that nonswimmers wear life jackets when on the water. Carry extra fuel to compensate for strong outgoing currents and to allow you to reach an alternate harbor in the event of adverse weather.

BOATING SAFETY CLASSES explaining required and recommended equipment for small boats and offering training in good seamanship are conducted throughout California by the U.S. Coast Guard Auxiliary, the U.S. Power Squadrons and certain chapters of the American Red Cross. For information on Coast Guard Auxiliary and Power Squadron classes, call (800) SEA-SKIL (732-7545) or (800) 368-5647. The Department of Boating and Waterways offers a free home study course entitled *California Boating Safety Course*. For more information, e-mail us at pubinfo@dbw.ca.gov, or phone (916) 263-1331 or tollfree (888) 326-2822, or write: Department of Boating and Waterways, 2000 Evergreen Street, Suite 100, Sacramento, California 95815-3888. Visit our Website at www.dbw.ca.gov.