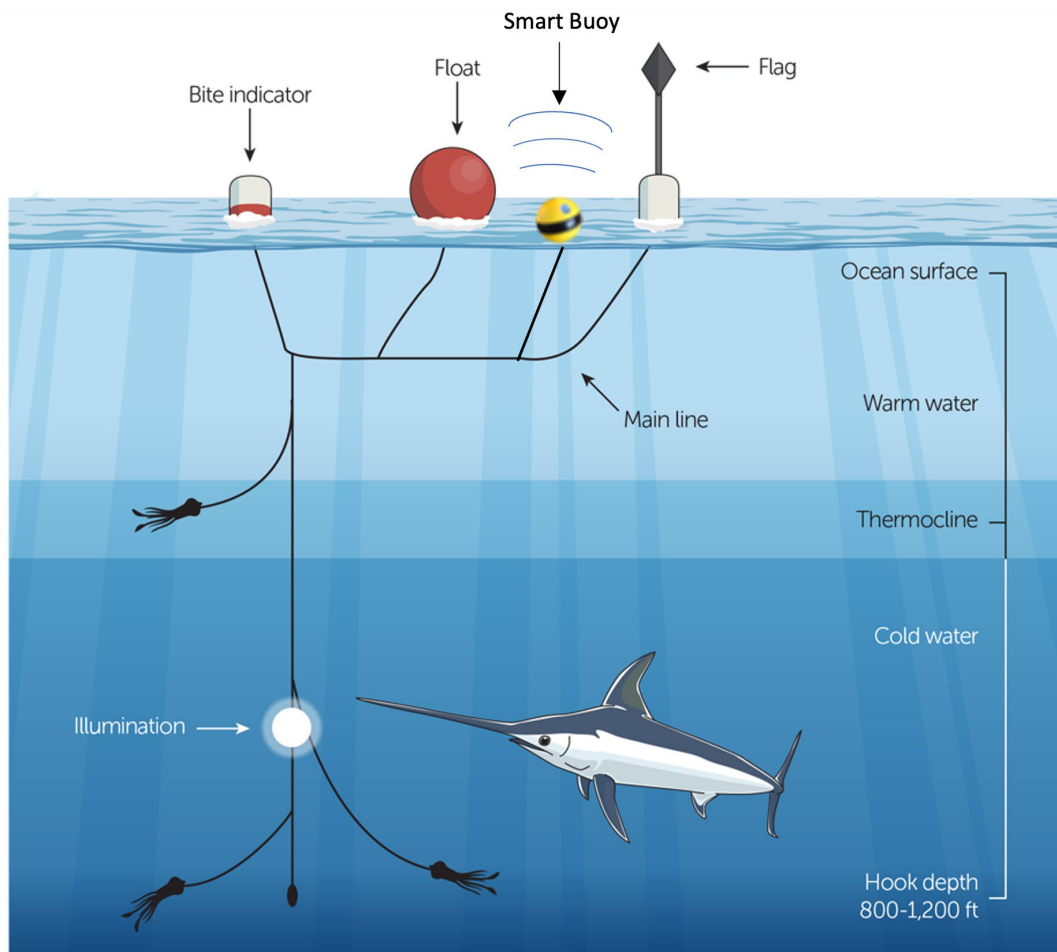




Blue Ocean Gear

The Farallon Newsletter

DEEP-SET BUOY GEAR - SWORDFISH



Adapted from Pew Charitable Trusts

Deep-set Buoy Gear (DSBG) uses a hook-and-buoy system that enables fishermen to drop their hooks as deep as 1,200 feet to reach swordfish and other deep water pelagic species on a highly targeted basis. When a bite-indicator buoy submerges, sharp-eyed fishermen can quickly respond to either bring the fish on the boat to be bled and put on ice or to release the catch alive if it is not a swordfish, bluefin tuna or

another salable species. While this approach has been used for a number of years by primarily recreational fishermen in the Southeastern US, the first application in a major fishery is being launched this year in California after several years of testing under an Experimental Fisheries Permit (EFP) program with research and technical support from the Pflieger Institute of Environmental Research (PIER). Deep-set buoy gear, which can be set as either individual buoys or linked into short chains, will replace the drift gillnets that have been subject to a phase-out plan since 2018 with full elimination by 2024.

Blue Ocean Gear has been partnering with the Southern California fleet since 2021 when we were approached by a fisherman who was looking for an automated way to track his buoys. The typical deep-set configuration is 10 individual drifting buoy rigs that are set across several miles and then monitored visually via binoculars. At dusk, in fog or when the bite is on, keeping track of 10 independently moving pieces of gear can create unneeded stress on board.

"On a big day, the Smart Buoys save me 5 hours of searching." Nate Perez, F/V Bear Flag II

Our ***always-connected*** technology and flexible interfaces provide deep-set fishers the ability to track their gear in whatever fishing mode they are in. They can route plan with our Smart Buoys on their plotter in conjunction with tracking currents and temperature breaks or they can get alerts and real time coordinates from their iPhones. Our additional sensors also allow us to identify rapid accelerations and direction changes that may indicate a fish on the line.

With the recent NOAA approval for the West Coast from the Mexican border through Oregon, we look forward to seeing this fishery recover its historic range through our home waters here Northern California and beyond.

The attached video captures our work in Southern California in more detail.



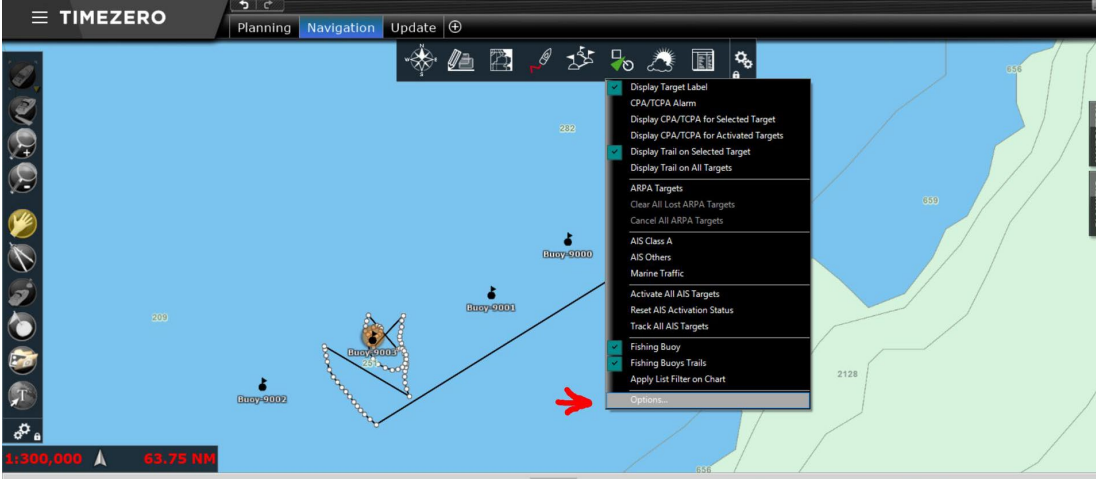
PRODUCT TIP: BUOY TRAIL ON TIMEZERO

Did you know that you can track-n-trail historic buoy locations by changing the day(s) setting on the TimeZero plotter anywhere between 1 – 60 days? This provides a visual cue into how the ocean is behaving and the location history of your gear.

On your plotter, go to (see screenshots below):

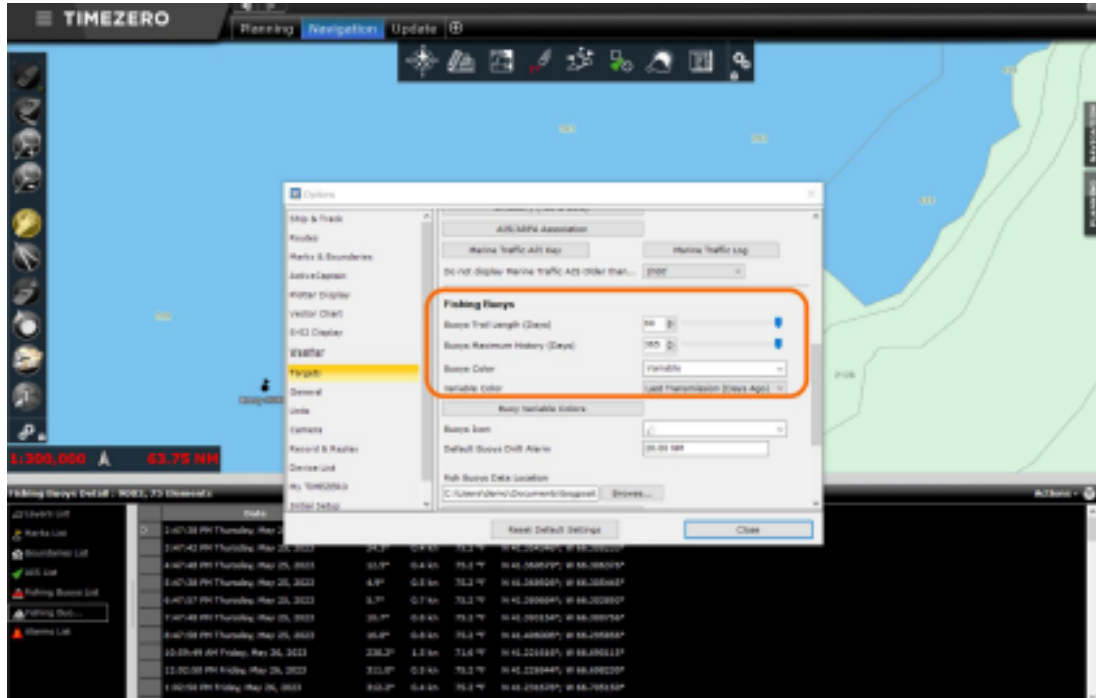
Targets > Options > Fishing Buoys > Buoy Trail Length.

Adjust the slider for the number of days of trail length you'd like to see for your buoys.



The screenshot shows the TimeZero software interface. The map displays several fishing buoys (labeled Buoy0000, Buoy0001, Buoy0002) with their respective trails. A context menu is open over one of the buoys, and a red arrow points to the 'Fishing Buoy Trails' option. The menu also includes options for 'Display Target Label', 'CPA/TCPA Alarm', 'ARPA Targets', 'AIS Class A', 'AIS Others', 'Marine Traffic', 'Activate All AIS Targets', 'Reset AIS Activation Status', 'Track All AIS Targets', and 'Apply List Filter on Chart'.

Date	COG	SOG	SST	Position
2:47:38 PM Thursday, May 25, 2023	0.0°	0.0 kn	75.2 °F	N 41.345416°; W 66.311785°
3:47:42 PM Thursday, May 25, 2023	24.3°	0.4 kn	75.2 °F	N 41.354346°; W 66.308233°
4:47:48 PM Thursday, May 25, 2023	12.5°	0.4 kn	73.2 °F	N 41.360679°; W 66.305376°
5:47:38 PM Thursday, May 25, 2023	4.9°	0.5 kn	75.2 °F	N 41.368926°; W 66.305443°
6:47:57 PM Thursday, May 25, 2023	5.7°	0.7 kn	75.2 °F	N 41.380684°; W 66.303893°
7:47:48 PM Thursday, May 25, 2023	10.7°	0.8 kn	75.2 °F	N 41.393154°; W 66.300756°
8:47:58 PM Thursday, May 25, 2023	16.0°	0.8 kn	75.2 °F	N 41.406006°; W 66.295856°
10:59:49 AM Friday, May 26, 2023	238.2°	1.5 kn	71.6 °F	N 41.221616°; W 66.690115°
12:02:50 PM Friday, May 26, 2023	311.0°	0.5 kn	75.2 °F	N 41.226944°; W 66.698230°
1:02:50 PM Friday, May 26, 2023	312.2°	0.4 kn	75.2 °F	N 41.231676°; W 66.705150°



The screenshot shows the TimeZero software interface with the 'Options' dialog box open. The 'Fishing Flange' section is highlighted with a red box. The 'Fishing Flange' section includes the following settings:

- Buoy Trail Length (Days): 30
- Buoy Maximum History (Days): 60
- Buoy Color: Variable
- Variable Color: Last Transmission (Days Ago)

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