

Ningbo, China MSA's Advisory on Navigating in Fishing areas

Dear Captain:

Hello, welcome to Ningbo-Zhoushan port!

Ningbo coast is the “T” intersection for China Yangtze River economic belt and China coastal transport. This intersection is a busy maritime highway, rich in fishery resources, and complex meteorological and hydrological conditions. In order to ensure a good maritime transport system, and the safety of ship navigation, we provide special reminders as follows:

I . Safe Navigation in Fishing Areas.

- a. Every year, fishing season for the East China Sea commences on 12:00 September 16 to 12:00 May 1. This includes trawlers using spar drag method for shrimp, pots cast method, gill nets method and lighting enclosure (cladding) net method, fishing season commencing from at 12:00 August 1 to 12:00 May 1.
- b. The Ningbo coastal route inter-cross with the East China Sea fishing zone, with fishing vessel navigating mostly in formation or operating in concentration. It is common for fishing vessels to operate in pairs using trawling method, long lining and bottom

trawling in the night, fishing net cast using buoy or at anchor. In addition, fishing vessels have a custom of crossing the bow of the large vessel for good luck.

c. Vessels should as far as possible alter the ship's course to avoid and maintain safe distance from areas with heavy concentration of fishing vessels. Vessel should not cut across areas where fishing vessels are congregated.

d. When navigating in fishing concentrated areas, the vessel should increase the navigation watch team with additional lookouts, maintaining safe speed and with all engines readily available. In close quarter situation, vessel should use ship horn, signaling light, and any means of communication or navigational aid to prevent the risk from further escalation.

e. When navigating in fishing concentrated areas, it is advised to pay close attention to signal lights of fishing vessels. The vessel should respond in a timely manner to declare that the watch on the bridge have noticed the fishing vessels when the fishing vessel give flash light signals to the bridge of the merchant vessel (at least 5 times generally). When the flash light of the fishing vessel is directed to any of its sides, it indicates that there are fishing nets on that side. The vessel should avoid passing the same side.

g . When an incident occurs, aside from reporting to the company Designated Person Ashore (DPA), the vessel should report the incident to the nearest China MSA office directly or through the vessel agent and to the Flag Administration.

II . Ningbo Coastal Fishing Vessels Operating Characteristics

Ningbo coastal fishing ground common fishing methods are: light purse, double drag, single drag, drag shrimp, sail net, crab cage, stream net, submarine string and small purse seining net. A brief introduction on the fishing method that has impact to safe navigation:

(1) Trawling

There are mainly two kinds of trawling methods, twin trawler (Diagram A) and single trawler (Diagram B).

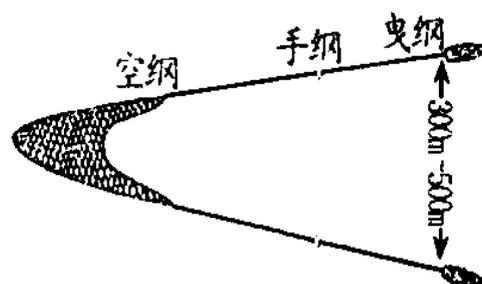


Diagram A – Twin trawler

Twin trawling refers to two separate fishing vessels, dragging in a fixed distance corresponding the hanging fishing nets. The trawl is 400-500 meters in length, deep into the water, trawl speed under normal weather conditions 3-4 knots. Shooting and hauling the net

usually during night hours or near daybreak, when the crew will be busy on the deck, with deck lights shining on them. The lights and shapes for trawling is as follows:

- ① by daytime, a shape consisting of two cones with their apexes together in a vertical line one above the other near the top of the mast;
- ② by night, two all-round lights in a vertical line, the upper being green and the lower white, and side navigational lights at the aft masthead, and stern light;

In addition to the lights prescribed in paragraph ②

- ③ when shooting their net, two white lights in a vertical line;
- ④ when hauling their net, one white light over one red light in a vertical line.

A single trawler is a fishing vessel alone, dragged a fish net using side and stern tow. Trawling speed is approximately 4-6 knots. The identification mark coincides with the double trawling method.

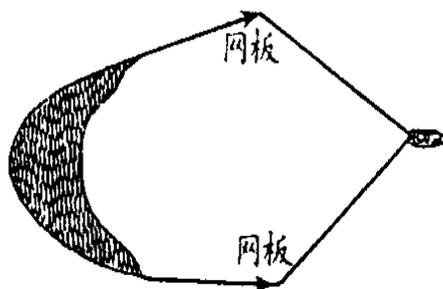


Diagram B – Single trawler

Advised action:

For double fishing trawling vessels, your vessel is to maintain from their stern no less than 1 nautical mile and by no less than 0.5 nautical miles on each side. Your vessel is to maintain safe distance when crossing the fishing vessel's bow and is prohibited to cut across the middle of a double fishing trawling vessel operation. For single drag fishing trawling vessel, your vessel should take the same precaution and avoidance action as per double trawling fishing vessels.

The vessel is to pay attention and avoid the side of the fishing trawling vessel, especially when the vessel is retrieving or casting net, do expect sudden and frequent change of course. We recommended your vessel keep a minimum distance of 0.5 nautical miles away from the fishing trawling vessel.

(2) Drift net fishing

Drift net fishing (Diagram C) is expanded vertical mesh net cast in water, having a wide area of operation, from one to several nautical miles in diameter. The net is mark with buoys and flags, and flag pole with flashing light for night operation. One end of the net going downstream direction, is attach to the bow of the fishing trawler. The bow of the fishing trawler marks the direction and position of the fishing. The fishing vessel and the fishing net are drifting based on the wind direction. The means to identify driftnet is a column buoy,

buoy and/or flag, and flag pole with flash lights at night on the calmer sea surface. The top surface of the pontoon or buoy, and fishing vessel can be detected by the radar, forming almost into a straight line on the screen.

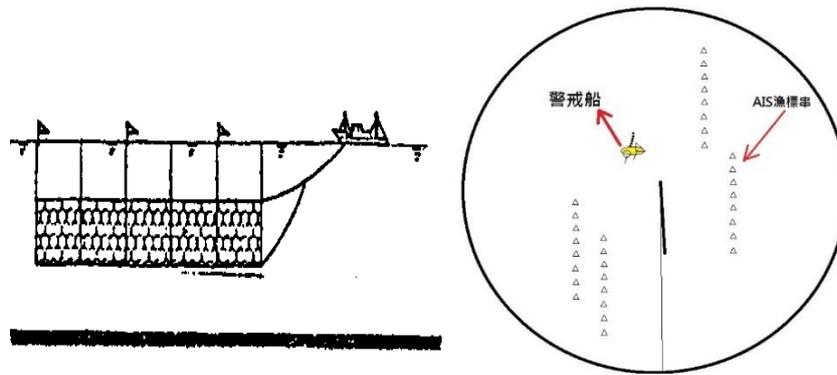


Diagram C – Drift net

Advised action:

Your vessel should maintain at least 0.5 nautical miles away from this fishing trawler, and is prohibited from sailing close to the fishing trawler bow, and maintain at least 1.0 nautical mile away from the fishing trawler when the driftnet has been cast.

In the event, that your vessel is in close proximity of the drift net, the vessel should immediately stop all engines to avoid the net being entangled on the propeller, and hopefully allow the vessel to coast across the fishing vessel's net using inertia. The Master or officer on watch should maneuver with caution, using the vessel's inertia to bring the vessel to a stop position.

(3) Purse seine fishing

Purse seine fishing (Diagram D) is a method using a long strip of net to surround a school of fish. It usually consists of one casting vessel, two lighting vessels and a fishing vessel for transport purpose. The net length ranges from 980-1200 meters, and covers approximately 350m diameter. Purse seine fishing can be identified with a vertical display of an all-round red light above an all-round white light in vertical, and in the direction of the fishing net, a network shows a white light indicating the net position.

Advised action:

Vessels should keep a minimum safe distance 0.5 nautical miles from the upstream direction of the purse seine fishing trawler.

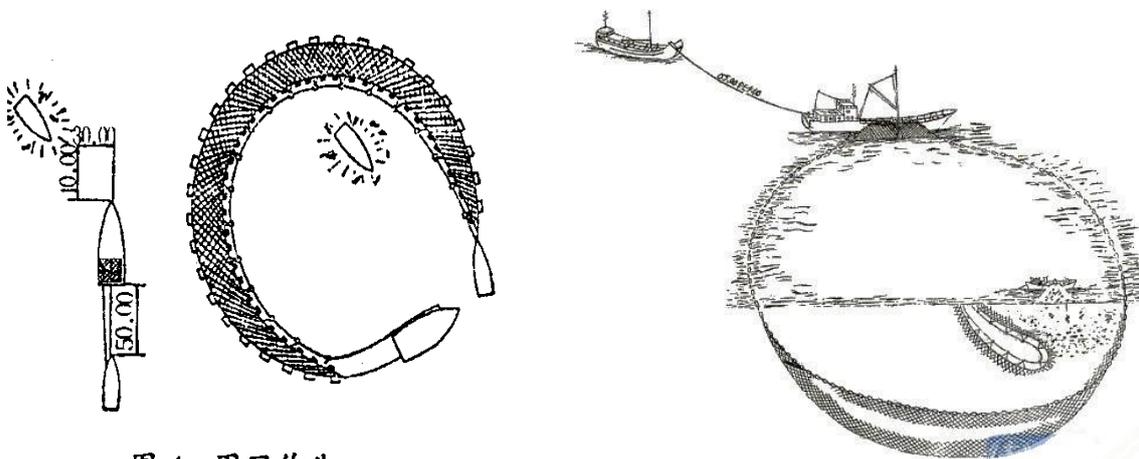


图 4 围网作业

Diagram D – Purse seine

(4) Stretch net fishing

The time of stretch net fishing is determined by the tide and current. In general, fishing vessels place their nets around neap

tide and retrieve them around spring tide, the duration lasts about 12 days. Exercise areas of these fishing vessels are not fixed, in the first half of the year they mostly operate in the area from 28°N to 32N, 122°E to 124°E, in the second half of the year from 30°N to 32°N, 124°E to 126°E.

Advised action:

Cargo vessels should learn the fishing vessels net areas by means of AIS net position indicators. Collision avoidance are to be taken at earliest opportunity. It is suggested to either maintain distance from this type of fishing nets or sail through between the net areas (the width of in between areas will be approximately 1000 meters).

(5) Glaring fishing

There are fishing vessels fit with glare device shining upon the surrounding sea surface to attract catch. Fishing vessels like this operate separately and travel in groups. The illumination can be extremely powerful during group operation. Commonly the fishing vessels stay still or drift with the current, they are easy to be spotted even outside a distance of 12 nm. It may interfere with vessels' lookout to identify proper lighting signals because of fishing vessel's glaring light.

Advised action:

Cargo vessels should enhance to use long and short range of radar observation. Analysis of fishing vessels' operation situation is to be made at earliest opportunity. Adjust vessels' route as appropriate and avoid entering fishing vessels' concentrated areas.

Good Practices by Merchant Ships

Navigation and navigation methods

1. Pay attention to and implement relevant safety information letters issued by the flag state government on navigation and operation habits of fishing boats along the coast of Ningbo;
2. Pay attention to and implement the safety information issued by the maritime administration and delivered by ship agency of destination port via e-mail and other forms;
3. Navigate within the main recommended coastal routes along the coast as much as possible;
4. Pass clear of fishing boats at a range of more than one nautical mile as much as possible;
5. When navigating through a dense area of fishing boats, the control should be switched to manual, and the captain should be in command on the bridge;
6. Do not occupy VHF channel 16 for a long time. If necessary, calls should be established on other channels;
7. Do not overly rely on navigation equipment and AIS device for navigation, make full visual observation and radar observation;
8. While on duty, avoid checking mobile phones, chatting and

things irrelevant to the watch.

Signal lights and shapes

9. Master signal lights, shapes and ship characteristics of Chinese fishing boats in various operating modes as much as possible;

10. When seeing a fishing boat or noticing successive flashlights from a fishing boat, sound whistle and light searchlight several times at the fishing boat to signal that someone is on the bridge on duty, and the fishing boat has been seen;

11. After establishing communication with a fishing boat, if the fishing boat turns the searchlight to the side or to the back, it means that there is fishing net in the direction, and seafarers should avoid the area as much as possible while navigating.

Coordination and avoiding

12. The speed of the fishing boats in operation is about 3-4 knots. Avoiding actions should be made as early as possible and with an angle as large as possible;

13. In addition to calling via the VHF channel 16, whistle, flashlight and other means should be used to draw the attention of the fishing boat ahead and nearby;

14. When avoiding fishing boats engaged in fishing operations, avoid the nets as much as possible as well;

15. Make full use of radar, AIS device and other equipment, or check the effectiveness of avoiding actions through visual observation to ensure a safe passing.

Rescue of danger

16. In the event of a dangerous accident, dial 12395 as soon as possible to report the dangerous situation, including the name of the ship in distress, casualties, damage of the ship, oil pollution, weather and sea conditions, etc.;

17. After a dangerous accident occurs, the first priority should be the rescue of the human life. Seafarers should give all-out assistance, and escape is strictly prohibited;

18. When a distress or a help call is received, seafarers should stop the ship in time to rescue people in distress, and ask nearby ships to participate;

19. If a person is found in the water, lifebuoy, life jacket, and insulation suit shall be tossed in time, and the rescue boat/raft should be released if necessary.