# National Transportation Safety Board

## Marine Accident Brief

### Collision Between Fishing Vessels *American Eagle* and *Koorale*

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| **Accident type** | Collision | **No.** | DCA19FM039 |
| **Vessel names** | *American Eagle* and *Koorale* | | |
| **Location** | Pacific Ocean, approximately 1,475 nautical miles northeast of American Samoa 2°27.68' N, 148°55.64' W. | | |
| **Date** | June 17, 2019 | | |
| **Time** | 1704 Hawaii standard time (coordinated universal time − 10 hours) | | |
| **Injuries** | None | | |
| **Property damage** | $225,580 est. *American Eagle*, $8.1 million est. *Koorale* | | |
| **Environmental damage** | None | | |
| **Weather** | Unrestricted visibility, scattered clouds, winds east southeast at 10–15 knots; seas east-southeast at 6–8 feet, air temperature 82°F, water temperature 81°F, sunset 1805 (local time) | | |
| **Waterway information** | Open ocean, fishing grounds east of the island of Kiribati, just north of the equator. | | |

On June 17, 2019, about 1704 local time, the commercial fishing vessels *American Eagle* and *Koorale* were fishing in the eastern Pacific Ocean, 1,475 miles northeast of American Samoa.[1] While pursuing the same school of tuna, the two vessels collided. Both vessels sustained damages but were able to return to port. No pollution or injuries to the 33 crewmembers aboard the *American Eagle* or the 19 aboard the *Koorale* were reported. Damage to the vessels was estimated at $8.3 million.

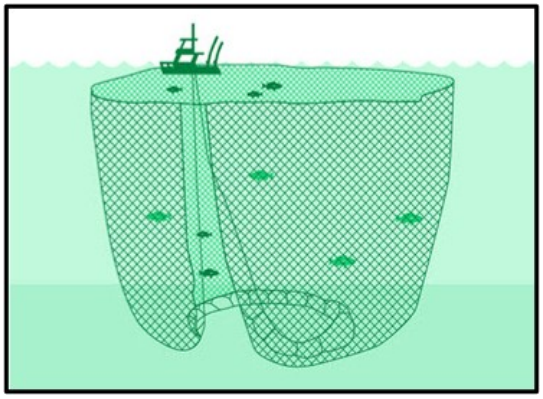

***American Eagle* approaching berth in Pago Pago, America Samoa after collision. (Source: *American Eagle* Fishing, LLC)**

[1] All miles in this report are nautical miles (1.15 statute miles).


***Koorale* under way prior to collision. (Source: sdtunaboats.com)**

## Background

The purse seiner *American Eagle* was built in Taiwan and delivered in 2003.[2] The *Koorale*, also a purse seiner, was built in the United States and delivered in 1973. The fish and nets came aboard via the stern of the vessel to the "net deck," then the catch was transferred below to the "wet deck," where the fish were processed by the crew and transferred to the holds. Each boat had a large skiff stowed on the stern, and additional boats stowed on the net deck. The *American Eagle* also carried a helicopter, located on a helicopter pad one deck above the pilothouse, for spotting schools of fish.



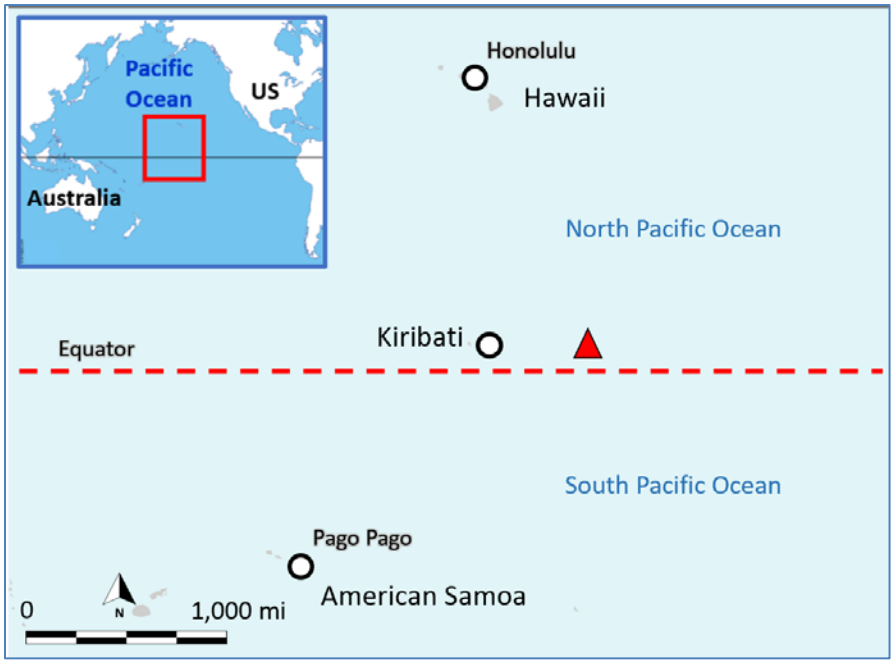
**Example of a deployed purse seine. (Source: National Oceanic and Atmospheric Administration)**

Both vessels were rigged for tuna fishing and had valid US Coast Guard Commercial Fishing Vessel Decals, high seas fishing permits with endorsements from the Western and Central Pacific Fisheries Commission (WCPFC), and authorizations to fish in Eastern Pacific Ocean (EPO) by the Inter-American Tropical Tuna

[2] Purse seiners use a large wall of netting with floats on the top of the net and a lead line strung through rings at the bottom of the net. The net is deployed using a skiff and then circled around fish as they school or run. Once the fish are encircled, the lead line is drawn tight to close, or "purse," the bottom of the net, preventing the catch from escaping downward. The net is then pulled alongside the fishing vessel, where the fish are loaded into holds.

Commission (IATTC).[3] The IATTC defined the EPO as any waters east of the 150° west meridian and between the 50° north and 50° south parallels.

Both vessels were US-flagged and took advantage of Coast Guard manning exemptions that allowed for licensed positions, other than the master (captain), to be temporarily filled by foreign nationals holding current credentials from other countries.[4] The senior officers on both the *American Eagle* and *Koorale* consisted of a US-licensed captain, referred to on board as the "navigator," and a foreign-licensed fishmaster. After the accident, the captains and fishmasters reported to investigators that the fishmasters directed the vessel when under way to fishing locations and while fishing.




**Area of accident where the American Eagle and Koorale collided, as indicated by the red triangle. (Background source: Google Maps)**

## Accident Events

The *Koorale* departed Pago Pago, American Samoa, on May 31, and the *American Eagle* departed Pago Pago on June 1. Both vessels headed to the high seas fishing grounds near the island of Kiribati, just north of the equator. Many of the purse seiners that operated out of American Samoa, including the *American Eagle* and *Koorale*, cooperated in a "code group," exchanging

[3] (a) The WCPFC is a Regional Fishery Management Organization established in 1994. The Commission "seeks to address problems in the management of high seas fisheries resulting from unregulated fishing, over-capitalization, excessive fleet capacity, vessel re-flagging to escape controls, insufficiently selective gear, unreliable databases and insufficient multilateral cooperation in respect to conservation and management of highly migratory fish stocks." Source: WCPFC, https://www.wcpfc.int/, accessed March 23, 2020. (b) The IATTC is a Regional Fishery Management Organization established in 1949. The Commission's objective is to ensure the long-term conservation and sustainable use of tuna and tuna-like species and other species of fish taken by vessels fishing for tuna in the EPO. Source: IATTC, https://www.iattc.org/default.htm; Food and Agriculture Organization of the United Nations, http://www.fao.org/fishery/rfb/iattc/en, accessed April 4, 2020.

[4] CG-CVC Policy Letter 13-04 CH-01.

fishing information, like position and catch size, multiple times a day. Over the next two weeks, both vessels fished while making their way east, following reports of better fishing in the EPO.

While fishing, fishmasters on vessels in the area would communicate amongst each other using VHF channel 10. The language used to communicate was Portuguese, a language neither the *Koorale* captain nor the *American Eagle* captain could speak or understand. The captains and fishmasters of both vessels told investigators that members of their "code group" followed a set of unwritten rules, including a rule that whichever vessel was first to a school of fish and in position to set their nets had first opportunity to harvest.

On June 15, 2 days before the accident, the *American Eagle*, *Koorale*, and 6 other purse seine vessels were all fishing within 8 miles of each other. Crewmembers from both vessels told investigators that it was common to have other vessels in close proximity to each other while fishing. On this day, both the *Koorale* and *American Eagle* spotted and pursued the same school of fish. The two fishmasters communicated by radio to determine who had rights to the school of fish. When describing the radio conversation, the *American Eagle* fishmaster told investigators that his counterpart on the other vessel "just start[ed] yelling," while the *Koorale* fishmaster said his counterpart "insult[ed] me."

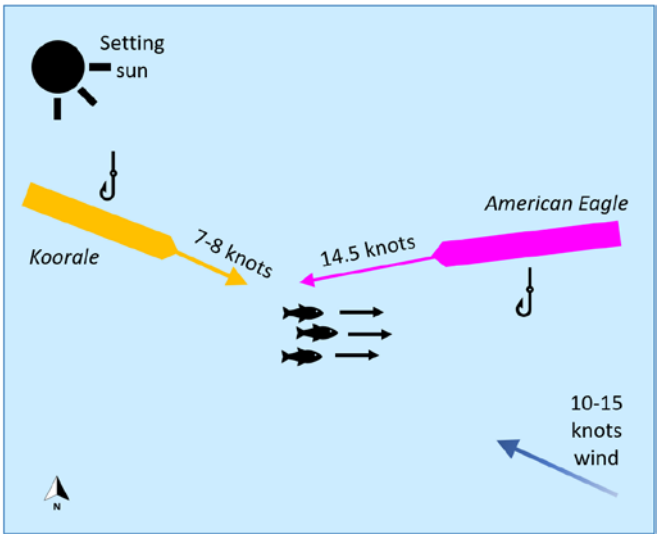
On the morning of June 17, the day of the accident, both vessels set their gear on different schools of fish but caught nothing. Throughout the morning and early afternoon, the *Koorale* and *American Eagle* searched for schools of tuna using their vessels' sonars, crewmembers stationed in crow's nests on the masts (referred to as the tuna tower), with high-powered binoculars, and, in the *American Eagle*'s case, its helicopter.

Crewmembers from the *Koorale* told investigators, that, about 1630, the spotter in the tuna tower located a school of tuna. The spotter radioed the fishmaster, who was on the bridge navigating the vessel from the port control console and monitoring the vessel's sonar system. The fishmaster turned the vessel to starboard, in the direction of the spotted fish, and put the vessel's engine throttle to full ahead. Moments later, the fishmaster and spotter saw the *American Eagle*, approximately 6 miles away, change course and head for the same school of tuna. The *Koorale* fishmaster estimated that the school of fish was 2 miles away from his vessel, so he gave the crew the order to "stand-by" to deploy the net. At this point, the captain of the *Koorale* arrived on the bridge and saw both the school of tuna and *American Eagle*. After the accident, when referring to the *American Eagle*'s and the *Koorale*'s position relative to the school of fish, the *Koorale* fishmaster told investigators that "we got to be the first over there in the spot."

Crewmembers from the *American Eagle* stated that their helicopter's spotter located the school about 1630—about the same time that the *Koorale* reported locating the school. The spotter radioed the vessel's fishmaster, positioned in the tuna tower. The fishmaster then used the vessel's PA system to instruct the captain, navigating the vessel from the bridge, to turn the vessel from its northerly course and head west to pursue the school. He also gave the order to his crew to "stand-by" to deploy the net. He later told investigators that he could see the *Koorale* coming east toward the school of tuna, and that he thought "it was a race" to the school.

About 15 minutes later, the school of tuna the *Koorale* was pursuing "went down" and could not be visually seen. The fishmaster said that he slowed to approximately 7–8 knots, activated the vessel's sonar, and begin tracking the school. He was able to locate the school on the sonar and said it was 10° off his starboard bow at 200 meters' distance. At that point he considered the *Koorale* to be "in the spot." At that same time, both the spotter in the tuna tower and the captain informed the fishmaster that the *American Eagle* was "still coming," with a "constant bearing, diminishing range." They both estimated that the *American Eagle* was 2 miles away.

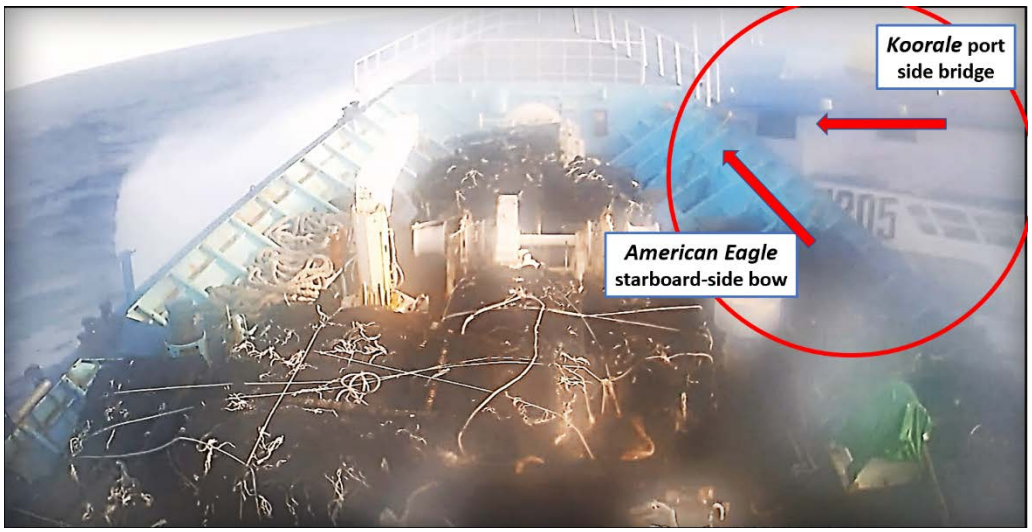
The *American Eagle* fishmaster also indicated he saw the school of tuna go down but said that the school resurfaced shortly after on his vessel's port side about 2 miles away. According to the captain, who was at the helm, he turned left, steered "260 degrees," and sped up, as instructed by the fishmaster. He also told investigators that the *American Eagle* was traveling at 14 knots, downwind with the seas, and that he saw the school of tuna fish about 2 miles away. CCTV footage from the *American Eagle*'s bow camera 10 minutes before collision showed the vessel making a heading change to port and steering a westerly course. The footage showed the sun low on the horizon off the vessel's starboard bow.




**Estimated locations of the vessels and fish approximately 10 minutes prior to the collision. Not to scale.**

The fishmaster on the *Koorale* told investigators that he saw the *American Eagle* turn again to port a few minutes before the collision. He continued to concentrate on the sonar while maintaining his vessel's course and speed, assuming the *American Eagle* was going to veer off. The captain said that he saw the *American Eagle* bearing down and that he verbally told the fishmaster, who was standing next to him, "Hey, you know the *American Eagle* is off the port side." The fishmaster responded, "Yeah I know," but did not alter course or speed.

One minute before the collision, the *American Eagle* fishmaster, in the vessel's tuna tower, instructed the captain to turn "20 left." CCTV footage from the bow camera shows the vessel turning to port at that time. The captain said that he assumed the fishmaster saw the *Koorale* and that the "20 left" command was an attempt to avoid a collision. The fishmaster told investigators that at this point he was not paying attention to the *Koorale*, he was concentrating strictly on the school of fish, off the vessel's port side, and that the sun was obstructing his vision.




**Still image captured from the bow CCTV camera aboard the *American Eagle*. (Source: *American Eagle*, annotated by NTSB)**

Shortly before impact, the *American Eagle*'s spotter alerted the fishmaster to the location of the *Koorale*. Moments later, using the bridge PA system, the captain broadcasted, "We are not going to make it." At the same time, the fishmaster used the tuna tower's PA system and ordered a "hard left" rudder command. Aboard the *Koorale*, the fishmaster told investigators that, seeing a collision was imminent, he steered his vessel hard to starboard and ran aft away from the port operating station, to escape the impact. The *Koorale* captain then stepped up and manned the center console. He told investigators that he first checked the rudder to confirm that the vessel was hard to starboard; he then sounded the vessel's horn and put the engine throttle controls to full astern.

Video footage from the *American Eagle* bow camera showed the *Koorale* coming into the frame from the right 10 seconds before the collision. About 1704, the *American Eagle* and *Koorale* collided, with the *American Eagle*'s starboard bow making contact with the port side of the *Koorale*. The *American Eagle's* bow crushed down the port side of the *Koorale*'s wheelhouse. The vessels came together for several seconds and then separated.

**Damage sustained to both vessels. Bow of the *American Eagle* shown in the lower right and the *Koorale* center. (Source: *American Eagle* Fishing, LLC)**

Directly following the collision, crews on both vessels conducted a damage assessment. Using VHF channel 16, the captain of the *Koorale* hailed the *American Eagle* and asked if everyone was okay. This was the only communication the two

vessels had on the day of the accident. Neither vessel was taking on water, and both eventually were able to return to port unassisted and under their own power.

## Additional Information

Neither vessel had fishing gear in the water, nor did they have fishing day shapes (to indicate they were engaged in fishing) displayed. Crewmembers on both vessels stated that there were no attempts to communicate prior to the accident while the vessels were in close proximity.

Both fishmasters told investigators that to set their nets, the school of fish had to be on the port side and upwind of their vessels. Each fishmaster claimed that their vessel was in position and the other vessel was out of position, and that according to their "code group" rules, the other vessel should have given way.

Investigators accessed saved vessel position, speed, and course information from the vessels' navigational equipment, but the data was not sufficient to fully reconstruct both vessels' tracklines in the moments prior to the collision. Both vessels were broadcasting automatic identification system (AIS) information, including position, speed, and heading. However, this information was not received by satellites on a consistent basis—for a period of 35 minutes, including the time directly before, during, and after collision, there were no AIS transmissions received from either vessel.

## Analysis

With scattered clouds, 6–8-foot seas, 10–15-knot winds, and unrestricted visibility, the weather leading up to the accident was not a contributing factor in the accident. The captain and fishmaster on the *Koorale* both saw the *American Eagle* up until the collision was imminent. The captain on the *American Eagle*, who was navigating the vessel, saw the *Koorale* the entire time the two vessels were pursing the same school of tuna. The fishmaster on the *American Eagle* was also aware of the *Koorale*'s location and admitted that the two vessels were racing to the same school. At the time of the accident, it was an hour before sunset, and the sun's azimuth was 293° at an elevation of 11.75°. The *Koorale* was west of the *American Eagle*, and the fishmaster acknowledged that the sun impeded his vision, but only moments before the accident when the two vessels were already on a collision course. Therefore, both vessels were aware of each other's location in the moments leading up to the collision.

Both vessels' fishmasters believed their vessels were in position to set their nets and that, according to their "code group" rules, they each had first opportunity to do so. However, neither vessel had deployed fishing gear or had displayed fishing day shapes. Regardless of the "code group" rules, the international navigation rules should have guided their interaction. The two vessels were in a crossing situation, and the *American Eagle*, having the *Koorale* on its starboard side, should have given way (Rule 15). The *American Eagle* did not alter course or speed to avoid the collision, and neither vessel took action until the last moments when the collision could not be avoided.

As the two vessels raced to the same school and toward each other, no attempts were made to communicate. Both fishmasters cited the reason for this was their intense interaction with insults and yelling 2 days prior. Neither captain stepped in to communicate because of the unofficial hierarchy on board the vessel, where the fishmasters directed the vessel while fishing. Both the *American Eagle* and *Koorale* saw each other and knew they were both competing for the same

school of tuna. Had the captains and fishmasters followed the international collision regulations or communicated to make arrangements, a collision could have been avoided.

## Probable Cause

The National Transportation Safety Board determines that the probable cause of the collision between the fishing vessels *American Eagle* and *Koorale* was both vessels' captains and fishmasters not following international collision regulations or communicating to make arrangements while pursuing the same school of fish.

## Vessel Particulars

| Vessels | *American Eagle* | *Koorale* |
|---|---|---|
| **Owner/operator** | American Eagle Fishing, LLC | M & F Fishing Inc. |
| **Port of Registry/ Homeport** | Pago Pago, American Samoa | Long Beach, California / Pago Pago, American Samoa |
| **Flag** | United States | United States |
| **Type** | Fishing vessel | Fishing vessel |
| **Year built** | 2003 | 1973 |
| **IMO number** | 1206090 | 545564 |
| **Classification society** | ABS | N/A |
| **Construction** | Steel | Steel |
| **Length** | 258.4 ft (78.8 m) | 182.1in (55.5 m) |
| **Beam/width** | 45.6 ft (14 m) | 40 ft (12.2 m) |
| **Draft** | 22.2 in (6.75 m) | 15.2 ft (4.6 m) |
| **Tonnage** | 2,310 GRT | 1,072 GRT |
| **Engine power; manufacturer** | 4,437 hp (3,309 kW) Daihatsu 6DKM-36 diesel engine | 3,600 hp (2,685 kW) EMD L20-642-E5 diesel engine |
| **Persons on board** | 33 | 19 |

**NTSB investigators worked closely with our counterparts from Coast Guard Sector Honolulu and Marine Safety Detachment American Samoa throughout this investigation.**

For more details about this accident, visit www.ntsb.gov and search for NTSB accident ID DCA19FM039.

**Issued: May 22, 2020**