Issued November 10, 2021

MAB-21/24

# Contact of Tanker *Atina* with Oil and Gas Production Platform SP-57B

On October 17, 2020, at 0446 local time, the tanker *Atina* with a crew of 21 was attempting to anchor in the Southwest Pass Fairway Anchorage in the Gulf of Mexico, about 21.5 miles from Pilottown, Louisiana, when it struck the manned oil and gas production platform SP-57B.<sup>1</sup> The platform's four crewmembers and one technician evacuated to a nearby platform by helicopter after activating the emergency shutdown device to shut in wells to the SP-57B platform. No pollution or injuries were reported. Estimated damages to the platform (\$72.3 million) and vessel (\$598,400) totaled \$72.9 million.<sup>2</sup>



**Figure 1.** Atina postaccident (*left*); SP-57B preaccident (*right*). (Sources: US Coast Guard, Cox Operating)

<sup>&</sup>lt;sup>1</sup> (a) In this report, all times are central daylight time, and all miles are nautical miles (1.15 statute miles).

 $<sup>^2</sup>$  Visit <u>ntsb.gov</u> to find additional information in the <u>public docket</u> for this NTSB accident investigation (case no. DCA21FM004). Use the <u>CAROL Query</u> to search investigations.

Accident Type Contact

**Location** Southwest Pass Fairway Anchorage, Gulf of Mexico, 21.5 miles

south-southwest of Pilottown, Louisiana

N 28°50.65′, W 89°23.80′

Date October 17, 2020

Time 0446 central daylight time

(coordinated universal time -5 hours)

Persons on board 21 (Atina), 5 (SP-57B)

**Injuries** None

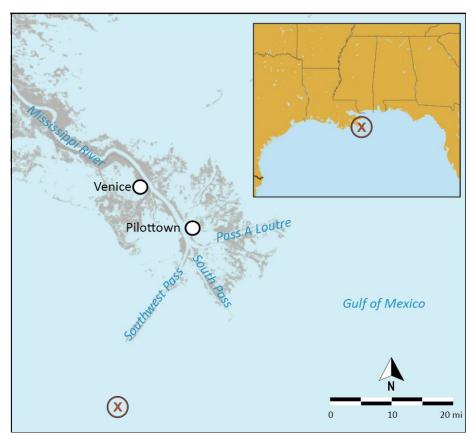
**Property damage** \$72.9 million est.

Environmental damage None

Weather Visibility 6 nm, clear skies, winds northeast 22-27 kts, gusts 27 kts,

seas 6-7 ft, air temperature 72°F, water temperature 77°F

Waterway Information Open water anchorage, depth 90-226 ft



**Figure 2.** Area of accident where the *Atina* struck platform SP-57B, as indicated by the red circle. (Background source: Google Maps)

# 1. Factual Information

## 1.1 Background

The Atina was a Malta-flagged crude oil and oil products carrier that was owned by Hanzhou 1 Ltd. and operated by Besiktas Likid Tasimacilik Denizcilik Ticaret Anonim Sirketi. The vessel was double hulled, meaning its cargo tanks were within an inner watertight hull separated by tanks or other spaces from its outer hull, and it had a fixed-pitch propeller. The vessel had no thrusters. The master, second mate, able seafarer helmsman, and ordinary seafarer lookout were on the bridge at the time of the accident.

The SP-57B was a stationary platform that was owned and operated by Cox Operating LLC. Its four steel, tubular-shaped legs supported a horizontal platform that contained equipment to remove oil and natural gas from beneath the seafloor. Piping from the platform was connected to associated pipelines that transported crude oil and natural gas to shore for further distribution.

A "ship inspection report programme" (SIRE) inspection was carried out on *Atina* 2 days before the accident, on October 15. A SIRE inspection is a standard assessment done by tanker owners and operators to identify operational deficiencies in their vessels. Before joining the vessel, the accident master visited the company office in Istanbul, Turkey, and learned that the master on board had "issues with the vetting [SIRE] inspector" and that he intended to leave. The accident master said that he had to "urgently" join the vessel to relieve the master.

## 1.2 Accident Events

On the morning of October 16, 2020, the crew on the 898-foot-long *Atina* completed the tanker's discharge of crude oil to the NuStar Terminal, St. James, Louisiana, at 1018 and began preparations for an early afternoon departure from the facility. According to the ship's passage plan, the total distance from the dock to its destination, an anchorage position at Southwest Pass Fairway Anchorage Area, was 166 miles. The Southwest Pass Fairway Anchorage was a designated anchorage area southeast of the terminus of Southwest Pass, open to the Gulf of Mexico. The downbound transit on the Mississippi River and into the Gulf of Mexico would require one state pilot each from the New Orleans–Baton Rouge Steamship Pilots Association (NOBRA), Crescent River Port Pilots' Association, and Associated Branch Pilots.

After all the items on the ship's pre-departure checklist were satisfactorily completed, including navigation, propulsion, and steering equipment, *Atina* got under way and began its downbound passage under the NOBRA pilot's conn at 1448. The vessel was in ballast with 18.0 feet forward draft and 28.9 feet aft. At 1942, about

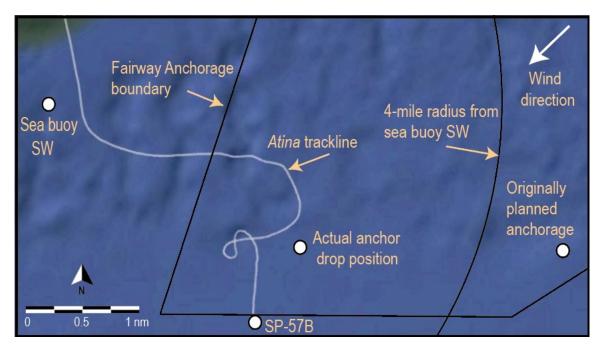
0.9 miles east of Algiers Point (near mile 94), a Crescent River pilot joined the vessel and took the conn from the NOBRA pilot a short time afterward.

About 0110 the following day, near Boothville, Louisiana, about 13 miles upriver from Pilottown, the relieving master joined the ship via launch. Farther south near Venice, Louisiana, the Associated Branch pilot boarded *Atina* at 0117 via pilot boat. About 0121, the launch returned to the ship to transport the departing master to shore. According to the Associated Branch pilot, he and the Crescent River pilot exchanged information, and the Associated Branch pilot took the conn near Cubits Gap, about 0.5 miles upriver from Pilottown. The Crescent River pilot left the vessel a short time later as *Atina* proceeded on the final segment of its downbound passage under pilotage to the open waters of the Gulf of Mexico.

At 0331, as the tanker approached the pilot boarding/disembarkation area near sea buoy "SW," the voyage data recorder (VDR) captured the Associated Branch pilot telling the master that he would leave the sea buoy on the starboard side and that there was a "strong westerly set." At 0342 the Associated Branch pilot departed *Atina*, leaving the master and second mate alone for navigation to the anchorage. At that time, *Atina* was about 0.6 miles southeast of sea buoy SW, 2.1 miles northwest of SP-57B, and its speed was 7.2 knots.

According to *Atina's* passage plan, dated October 16, the tanker's intended anchorage in the Southwest Pass Fairway Anchorage area was about 3.2 miles northeast of SP-57B and about 5.5 miles southeast of the sea buoy. However, the accident master told investigators that he didn't want to spend a lot of time finding a place to anchor in the middle of the night on a vessel he wasn't familiar with. He also told investigators that he wanted to anchor the tanker soon after the Associated Branch pilot's departure because he was tired from having no sleep for over 50 hours while traveling to join the ship. He checked the electronic chart display and information system (ECDIS) and planned to drop the anchor in the Fairway Anchorage area, in what he deemed was a safe place, about "7 cables" (equivalent to 0.7 miles) from the platform SP-57B.

At 0400, radar and ECDIS images captured by the ship's VDR showed the vessel south of its easterly voyage plan trackline and moving farther to the south. At 0402, with the vessel heading 115° at a speed over the ground of 2.8 knots and a course over the ground of 170°, the master ordered *Atina*'s bosun, who was on the bow of the tanker, to begin lowering the port anchor. The tanker was in about 167 feet of water and within the boundaries of the Southwest Pass Fairway Anchorage area. At 0409, there were 2 shots (180 feet) of chain in the water, and the chain was taking a lead of about 9 o'clock. At that same time, SP-57B was about 0.8 miles off the tanker's starboard beam, and the wind was just forward of its port beam (about 046° true).



**Figure 3.** Atina's trackline, taken from VDR data overlaid on a Google Earth image, showing the tanker's position relative to sea buoy SW and platform SP-57B within the Fairway Anchorage boundaries. The image also shows *Atina*'s originally planned anchorage location, trackline, actual anchor drop position, and the 4-mile radius from sea buoy SW.

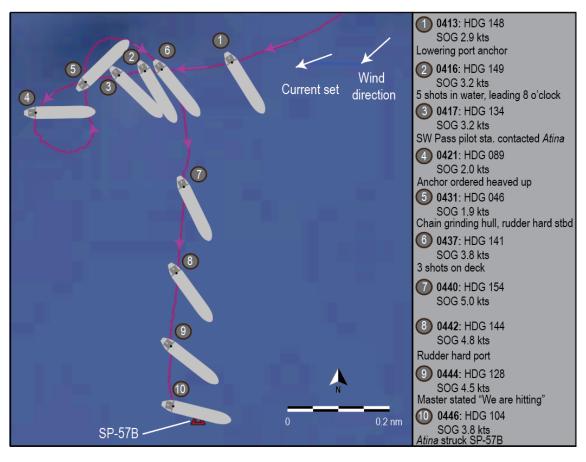
At 0413, as the vessel's crew continued to lower the port anchor to 5 shots (450 feet) in the water, *Atina*'s master asked the second mate for the distance to a vessel that the master believed had not been visible a few minutes ago. At 0414, the master told the second mate he believed the target was "6 cables" (0.6 miles), and the second mate replied that it was 1.5 miles. Nineteen seconds later the master replied, "Okay, but what is that thing we see at 5 cables?" The second mate replied, "Bearing 210, range 1.5 miles." The master asked if the target was moving; the second mate said it was anchored and again confirmed this after the captain asked, "Anchored, right?" At 0416 the bosun reported there were 5 shots in the water and the anchor chain was leading 8 o'clock. About the same time, SP-57B was about 0.7 miles off the tanker's port bow.

About 0417, with the sea buoy bearing 310° at 2.34 miles from the *Atina*, the Southwest Pass pilot station called *Atina* on VHF radio and asked if they were going into the anchorage; the vessel's crew replied that they were "dropping anchor now." The pilot station then stated, "Move more than 4 miles from the sea buoy," and then repeated, "more than 4 miles from sea buoy." The *Atina* crew replied, "Yes, okay fine, 4 miles," and the pilot station replied, "Four miles from Southwest buoy, captain." The vessel crew responded, "Okay."

At 0420, the master stated, "There is no sleep for me, it has been three days straight," and at 0421, he ordered the anchor to be heaved up. At 0431, the bosun reported the "chain was grinding the hull." The master ordered hard starboard rudder

with SP-57B on the *Atina*'s starboard quarter at 0.7 miles and the wind dead ahead of the vessel at 24 knots. At 0437, 20 seconds after the bosun reported 3 shots (270 feet) on deck, the master asked the second mate to confirm that they "will have no problem with that ship," that they would clear it. At the same time, SP-57B was about 0.7 miles on the vessel's starboard bow bearing 174°.

The master then asked the second mate for the distance from the other vessel, and the mate replied, "One mile bearing 175°." At 0440, after first remarking that it looked like the ship was "closing in," the master asked the second mate what the ship was doing, to which the second mate replied, "She is speeding with 5.3 knots at this moment." At the same time, *Atina* was making a speed over ground of 5 knots. About 0441 the master asked the second mate for the name of the ship, and the second mate replied, "Leader, sir, at starboard." The master replied, "This is not a ship, it is a platform." About 0442, parametric data obtained from the tanker's VDR showed the rudder went from midship to 32° to port. At 0444, the master stated, "We are hitting," and, according to parametric data from *Atina's* VDR, at 0446 the starboard side of *Atina* struck the northern side of SP-57B at 3.8 knots.



**Figure 4.** Atina's trackline, taken from VDR data overlaid on a Google Earth image, showing the ship's heading and speed over ground before the accident.

Immediately after the strike, personnel on the SP-57B assessed the damage to the platform and initiated emergency shutdown procedures. A short time later, a helicopter lifted platform personnel to a nearby manned platform. After notifying the company and Southwest Pass pilot station of the strike, the tanker went to anchor in the Southwest Pass Fairway Anchorage.

As a result of the strike, *Atina* sustained \$598,400 in damages to its starboard accommodation ladder and indentations to hull plating in ballast tanks 3-starboard and 5-starboard. SP-57B's owner/operator reported that SP-57B sustained a fractured and bulged leg as well as severed, buckled, and crushed structural members above and below the waterline. The total cost of damages to the platform was estimated at \$72.9 million.



Figure 5. Damage to SP-57B (left) and Atina (right). (Source: Coast Guard)

## 1.3 Additional Information

Postaccident alcohol and other drug testing was conducted with negative results for all crewmembers. According to the 96-hour work/rest history form for the master, he had no sleep in the 24-hour period before the accident and 19 hours of sleep during the 96 hours before the accident. Ninety-six-hour work/rest history forms for the second mate, helmsman, and lookout indicated that all were in compliance with work/rest requirements.

Investigators reviewed email exchanges between the operating company, *Atina's* departing master, and the ship's agents regarding the change out of masters for *Atina*. One such email from the operating company to the agent on October 16, after the vessel left the NuStar Terminal and just hours before the accident, provided the agent with the tanker's estimated time of arrival at Pilottown and asked if the master change could be done there or if there was a "possibility and place to make the change before

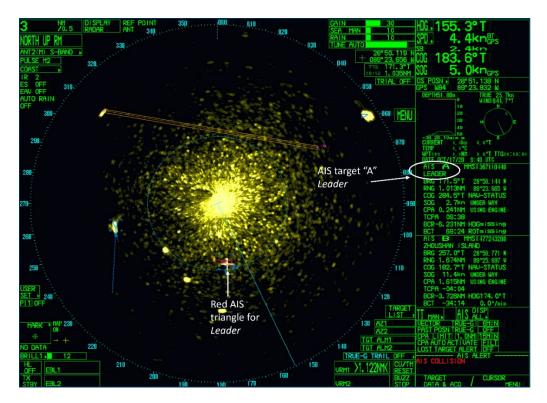
[or] during [Mississippi] River sailing." The operating company also forwarded travel itineraries for both masters to the ship's agent on October 15, 2 days before the accident. According to the departing master's itinerary, he was to fly out of Louis Armstrong New Orleans International Airport at 1320 on the date of the accident.

According to the Main Manual of the operating company's safety management system (SMS), an induction or familiarization of senior officers should be carried out by the senior officer who is handing over the task and that "an overlapping period should be at least one day for Senior Officers already within the company and at least 7 days for new Senior Officers to the company." The accident master said that he had never been aboard *Atina* but had worked for the company in the past.

At the time of the accident, there was a current set of about 247° and a drift of about 1.5 knots. *Atina*'s radar displays showed the wind out of the northeast at 25 knots. The master told investigators that he was aware of the 25-knot wind.

#### 1.3.1 Radar Information

Atina's VDR information included data from the S-band and X-band radars. At the time of the accident, the S-band radar was set to a 3-mile range. The S-band radar screen showed the offshore supply vessel *Leader* as an automatic identification system (AIS) target. The alarm "AIS COLLISION" was visible in red text under "AIS ALERT" on the S-band radar screen. The X-band radar was set to a 1.5-mile range and did not show any alarms or AIS information. The second mate told investigators that an alarm was activated on the radar he was referencing in the time leading up to the accident.



**Figure 6.** Screen capture of *Atina's* S-band radar at 0441. The range is set to 3 miles and the offshore supply vessel *Leader* is listed as an AIS target. Also visible in the bottom right corner is the text "AIS COLLISION" in the "AIS ALERT" section.

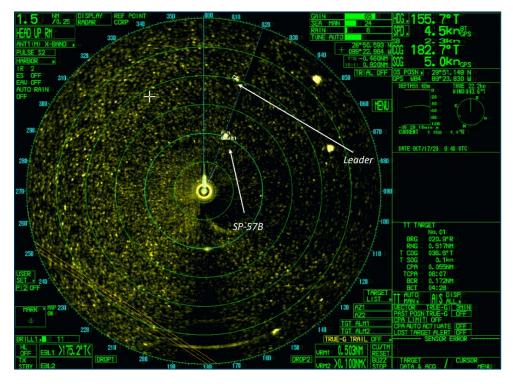


Figure 7. Screen capture of Atina's X-band radar at 0441. The range is set to 1.5 miles.

# 2. Analysis

The accident master told investigators that he wanted to anchor the ship as soon as possible because he was tired. The location he chose was about 2.5 miles from the sea buoy and about 7 cables (0.7 miles) from platform SP-57B. It did not follow the passage plan anchoring location, which was prepared by the second mate before the accident master joined the vessel. The master told investigators he thought that was a sufficient distance to anchor from the platform.

After Atina had already begun anchoring, the Southwest Pass pilot station asked the vessel to move to a location greater than 4 miles from sea buoy SW, since Atina was within 4 miles of the sea buoy (the passage plan anchorage was outside the radius). As the crew was heaving the anchor to comply with this request, the bridge team lost track of the platform's location. Based on the VDR audio, it appears that the master believed the platform was another vessel. When the master asked what the vessel at 6 cables was doing (platform SP-57B was at that approximate distance), the second mate gave the master distances and information for the offshore supply vessel Leader, which was located 1.5 miles away from the tanker, 0.9 miles beyond SP-57B. The S-band radar was the only radar that included vessel names and the only radar showing an alarm. Because the second mate informed investigators that an alarm was activated on the radar he was using, it is likely that the second mate was looking at the S-band radar. The S-band radar was set at a scale of 3 miles, making platform SP-57B difficult to see because it was lost in radar clutter close to the Atina. The master was likely looking at the X-band radar, on which the scale was set to 1.5 miles, making the SP-57B easily visible at 0.5 miles.

The weather conditions included winds of about 25 knots out of the northeast. The Associated Branch pilot had informed the master of the strong westerly set, and the radar indicated a set and drift of about 247° at 1.5 knots. However, the master did not adequately account for the westerly setting current and northeasterly wind that pushed his vessel toward the platform. Likely preoccupied with bringing the anchor in clear from the hull, the master ordered hard starboard rudder while the platform was on the *Atina*'s starboard quarter and with the wind coming from dead ahead. By doing so, he ended up pivoting *Atina* toward SP-57B and putting the wind and current on the *Atina*'s port side, which caused the vessel to set toward the platform. As the platform's relative position to *Atina* shifted from the tanker's starboard quarter to the starboard bow and the ship pivoted about the anchor chain, the combination of set and *Atina* moving ahead brought the tanker in contact with the platform as the amount of chain in the water lessened and the ship gathered speed.

The company's SMS required a minimum 1-day turnover between senior personnel aboard a company vessel if the oncoming senior person worked for the company, and 7 days if the senior person was new to the company, yet the company asked the agent if

the master change out could occur at Pilottown, where the launch carrying the oncoming master would come alongside the vessel, or elsewhere on the Mississippi River. By making this request and the requisite travel arrangements, the company was aware that these arrangements left no room for the minimum 1-day turnover required by the company's SMS. According to the accident master, he saw the departing master on the deck of the tanker as he was getting ready to leave on the launch alongside. The accident master, without having any handover period, was then required to take command of a vessel, under pilotage on the Mississippi River, at night, after having traveled for about 54 hours from his home in Turkey, on a ship he had never served on before. Additionally, his statement during anchoring—"there is no sleep for me, it has been 3 days straight"—supports a lack of rest during this travel period. He was likely affected by acute fatigue, which occurs when a person has less than 4 hours of sleep over a 24-hour period. The master was placed into critical vessel evolutions—navigating downriver and anchoring at night-in a fatigued state due to the company's decision to change out vessel masters without any overlap. An overlap would have allowed for the incoming master to rest and receive his counterpart's handover information. This change out did not follow the procedures set out in the company's SMS.

# 3. Conclusions

## 3.1 Probable Cause

The National Transportation Safety Board determines that the probable cause of the contact of tanker *Atina* with the oil and gas production platform SP-57B was the *Atina*'s operating company not ensuring sufficient time for the master's turnover, which resulted in the master's acute fatigue and poor situation awareness during an attempted nighttime anchoring evolution.

## 3.2 Lessons Learned: Handover Period

Vessel operating companies should ensure that joining crewmembers/personnel are given the opportunity to obtain a sufficient handover period and adequate rest before taking over critical shipboard duties, such as navigation, that could impact the safety of the crew, property, and the environment.

Vessel	Atina
Туре	Tanker
Flag	Malta
Port of registry	Valletta
Year built	2013
Official number (US)	N/A
IMO number	9593000
Classification society	American Bureau of Shipping
Length (overall)	898 ft (273.7 m)
Beam	157.5 ft (48.0 m)
Draft (accident)	18.0 ft (5.5 m) forward, 28.9 ft (8.8 m) aft
Tonnage	83,377 GT ITC
Engine power; manufacturer	1 x 26,311 hp (19,620 kW); B&W 6S70ME-C MK8.2 diesel engine

NTSB investigators worked closely with our counterparts from **Coast Guard Sector New Orleans** throughout this investigation.

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For more detailed background information on this report, visit the NTSB investigations website and search for NTSB accident ID DCA21FM004. Recent publications are available in their entirety on the NTSB website. Other information about available publications also may be obtained from the website or by contacting—

National Transportation Safety Board Records Management Division, CIO-40 490 L'Enfant Plaza, SW Washington, DC 20594 (800) 877-6799 or (202) 314-6551