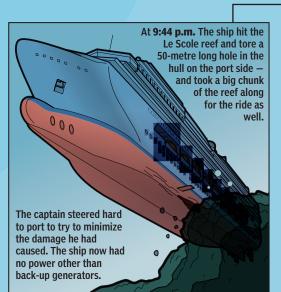
WHAT REALLY HAPPENED

Costa Concordia Captain Francesco Schettino gave the order to abandon his cruise liner one hour and 14 minutes after first hitting rocks. During that time, the captain fought a losing battle to bring the stricken \$590-million vessel safely into port.



"I was navigating by sight because I knew the depths well and I had done this manoeuvre three or four times \dots but this time I ordered the turn too late and I ended up in water that was too shallow. I don't know why it happened ... I was a victim of my instincts."

CAPTAIN OF THE COSTA CONCORDIA FRANCESCO SCHETTINO

Tyrrhenian Sea

With no power, the captain's next turn to starboard did little to change direction It is possible that the turn forced a great deal of water inside the 50-metre gash in the hull.

"The huge question in my mind is why this half-wit of a captain permitted a deviation of the course so close to a reef... You can scour the world and you won't be able to find another captain that says, 'Hey, you know, it's a great idea to go a little closer to that reef . . ."

MARITIME ACADEMY GRADUATE HENRY S. WOODS III, OWNER OF TRIDENT MARINE SAFETY

Time: 9:55, Speed: 2 kts

As the ship slowed down it became harder to steer, so although the turn had prevented it from crashing into Isola de Giglio, it was heading out to sea.

Speed 0.8kts

Speed 2kts

Time: 9:48 Speed: 5 kts

The Concordia turned right, back out toward open water. In order to slow it down normally, the ship would reverse engines, but with no power at this point, the captain applied the hard right rudder.

Speed Okts

GABBIANARA POINT

LE SCOLA POINT

ISOLA DI

GIGLIO

PORTO

Time: 9:44, Speed: 16 kts

The Costa Concordia increased speed as it approached Le Scola point. It was travelling at 16 knots when it was about 300 metres from

the reef. The impact spot is in about eight metres of water, and is just 10 metres away from a large rock outcrop jutting out of the sea, some 30 metres from the shore of Isola de Giglio.

The Concordia turned hard left to lessen the damage being done to the port side. This is likely when the ship lost power and switched to

Time 9:45, Speed: 8 kts

Time: 10:50. Speed: 0.5 kt

The back of the Concordia finally struck the reef at Gabbianara point, swinging the front of the right and pinning it against the rocks.

At 10:58 p.m. The captain of the Concordia finally orders "abandon ship."

At 11:37 p.m. Dozens of ships converged on the stricken vessel.

At 12:05 a.m. The rescue was in full swing.

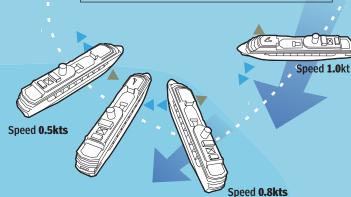
At 10:26 p.m. Responding to a Coast Guard official, Capt. Francesco Schettino admited that the ship had been damaged but said all they needed was a tugboat.

Time: 10:25, Speed: 0.7 kt

The Concordia, probably pushed by the current and the docking thrusters, moved toward land. The ship was moving almost sideways at this point.



At 10:06 p.m. Authorities on the island received their first alarm about the disaster after a passenger called relatives on shore who notified police.



SOURCES: FORBES.COM, MARINETRAFFIC.COM, BOATDESIGN.NET & NEWS REPORTS ${\tt JAN~VYKYDAL,~ANDREW~BARR,~MIKE~FAILLE,~JONATHON~RIVAIT~AND~RICHARD~JOHNSON~/~NATIONAL~POST}$

manoeuvring sideways while

thrusters usually used for docking — but the hard right rudder had caused the Concordia to list to one side.

Speed: 1 kt

The ship fired its port-docking

bow thrusters to keep the bow of the ship pointing toward the Giglio Porto.

The captain

then used the

"The problem now is that he has no power, he's losing propulsion, the propellers aren't turning and the ship isn't being propelled forward by anything but its own momentum."

Speed 2kts

Speed 0.5kts

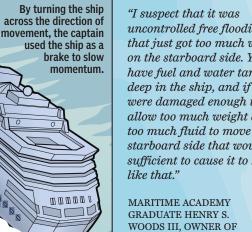
"Whenever you turn a ship hard over it's moving sideways, and when you're moving a large ship like that sideways through the water it's going to slow it down considerably."

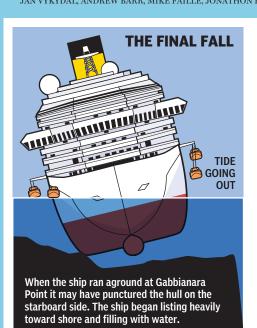
CAPTAIN JOHN KONRAD, GCAPTAIN.COM

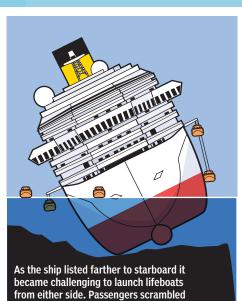
The Costa Concordia, listing and drifting very slowly forward, ran aground on rocks off Giglio Porto.

"I suspect that it was uncontrolled free flooding tnat just got too much weight on the starboard side. You have fuel and water tanks deep in the ship, and if those were damaged enough to allow too much weight and too much fluid to move to the starboard side that would be sufficient to cause it to heel

TRIDENT MARINE





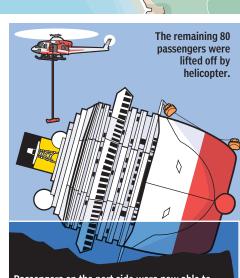


uphill to the port side of the ship.



mananan m

submerged. Anyone waiting there had to swim for shore or drown. Moving to starboard was no



metres 150

N

Passengers on the port side were now able to leave only by ladders. Unfortunately, the ladders stopped at what would have been the waterline leaving them a six storey jump into the sea.