

INSIDE VIEW:

A DIFFERENT SHIP

Captain Nikolaos Frantzis gives a mariner's view of
Celebrity Summit

by

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Captain Nikolaos Frantzis is the master of Celebrity Summit. This is a popular ship and in 2010, she undertook a popular itinerary, sailing from Bayonne, New Jersey in New York harbor to Bermuda. "This is my first assignment on a Millennium class ship. I am pretty happy to be here because this is a different ship for me and also a different itinerary."

Driving the Summit

To understand just how different Summit is, it is necessary to contrast her against more traditional cruise ships. Since he started with Celebrity Cruises in 1996, Captain Frantzis has served on six Celebrity ships beginning with the Horizon, Celebrity's first ship. However, his longest association was with Celebrity Mercury where he spent four years as Staff Captain and four years as Captain. During that time he saw many far flung and exotic destinations as the Mercury took him to Alaska, Hawaii, French Polynesia, the Bahamas and through the Panama Canal. "It was a very good experience for me. And, as a captain, I had a very good connection with the ship."

Mercury is the third ship in Celebrity's Century

class. At 77,000 gross tons, she is a mid-sized cruise ship. "It is very nice. It was a very good construction. Mercury has four diesel engines, variable pitch propellers and two big rudders. The ship was quite maneuverable."

Stern thrusters and bow thrusters give the Mercury the ability to move sideways, which makes docking the ship and undocking (*i.e.*, leaving the pier) much more easy. However, the key to her maneuverability lies with her two rudders. Each "rudder consists of two flaps - - a huge one and a smaller one. If I say to the quartermaster, starboard 20, it means the first flap will go 20 degrees but the second flap will go up to 55 degrees. So that makes the Century class ships very maneuverable. [This can only be done during docking] not when the ship is underway at 20 knots because [it would injure] the vessel pretty badly."

Although Mercury only entered service in 1997, technologically, she is based upon a much different concept than the Celebrity ships that have followed. In fact, the next class of ships built by Celebrity, the Millennium class, featured advanced technology that is still cutting edge a decade after the first ship in the class entered service. Celebrity Summit, is the third ship in

the Millennium class.

"On the Summit, we have two gas turbine engines and azipods - - a very big difference."

Gas turbine engines are used on modern warships and are relatively more compact and efficient than is a diesel engine power plant. "They give you more power. To have the ship at the maximum speed of 24 knots, I can have a total of 67,000 horsepower or 50 megawatts. Because they burn marine gas oil - - a very purified gasoline similar to jet fuel oil - - I have zero emissions, no emissions at all. Of course, it is very expensive. Marine gas oil is very expensive."

Indeed, because of the expense of burning marine gas oil, the Millennium class ships were all retro-fitted with an additional diesel engine, which is used primarily to produce power when the ships are in port.

Azipods replace both the rudders and the traditional propeller shafts used in ships like Mercury. The propulsion mechanism for the ship is housed in giant pods suspended below the hull of the ship. On the front of the pod is a propeller that is connected to an electric motor inside the pod. The electric motor gets its power from cables that go to the gas turbines, which are located inside the hull of the ship.

"This ship is very maneuverable because the azipods can rotate 360 degrees. Summit does not have stern thrusters like the Mercury has. She is also a little heavier than the Mercury because she is bigger. But that is okay because I have much more power at the stern because of those azipods. Also, here I have three bow thrusters. They can produce 9,600 horse power, which is a lot - - it is like two tug boats. I have the power of two tugboats - - that is huge." This system enables Summit to dock and undock usually without the assistance of tugboats.

In Bermuda, the local authorities require that all cruise ships have a tugboat standing by during docking and undocking just in case. "Bermuda is in the middle of the Atlantic and all of a sudden you can have winds from 25 knots up to about 50. With those winds, we might have some troubles. I needed [a tugboat] just once so far. When I was maneuvering the ship away from the pier, I had 40 knots winds off the starboard side. The tugboat assisted me, for five or ten minutes, with my bow."

The wind also must be considered when



Captain Nikolaos Frantzis

approaching or leaving Bermuda. These islands are surrounded by reefs and cruise ships have to approach and exit through a channel that runs the length of the island chain. "There are spots in the channel that are very tight, and next to us we have shallow waters, I mean really shallow waters like 3, 4, or 5 feet, which is nothing. Definitely the wind is affecting me but this is my job, I have to compensate for the wind at all times. So for instance, if my true course is 26 degrees, in order to compensate for the wind, maybe the ship's heading is different, maybe 30 degrees - - four more degrees to starboard in order to compensate for the wind."

In addition to increasing maneuverability during docking and undocking, the azipods also make the ship more efficient when she is underway. In a traditional system, the propeller is at the end of a propeller shaft and faces the stern of the ship. The propeller pushes the ship through the water. Because the propeller is

on the front of the pod in an azipod system, it pulls the ship through the water. Whereas in the traditional system, the propeller is biting into water made turbulent by the propeller shaft and its supporting struts which precede the propeller through the water, the propeller in an azipod system is biting into undisturbed water. "It is preferable to pull. This way, I have better performance of the propellers. The actual movement of the ship is much better pulling rather than pushing."

The azipod system does, however, require a captain to adjust his thinking. "If I say to the quartermaster starboard 10, he is going to put the wheel starboard (right) 10 degrees. The actual movement of the azipods, however, will be to port. But the movement of the ship will be to go to starboard. This is because [the pods are] pulling the stern [thus making the] the bow go to the right. I am pulling the stern to port, to the left, so the bow is going to starboard. You have to keep that in your mind."

Even though Summit's technology was cutting edge when she entered service, "The technology is being constantly updated at all times." Indeed, "as far as I know the Solstice class ships [Celebrity's latest class] have very similar technology and bridge equipment to what I have here."

Commanding the Summit

Driving the Summit is not a one man operation. Indeed, most of the time that the ship is at sea, the captain is attending to other duties and the bridge is staffed by the ship's navigational officers. When docking or undocking, the captain is on the bridge but "there is also the staff captain and the navigation officer to assist me. I tell them 'Don't feel comfortable just because I am on the bridge - - you have to continue to do your jobs. You are my back-up; you have to support me - - that is why we are two or three officers on the bridge.'"

While Captain Frantzis enjoys maneuvering the ship himself, he does allow his officers to drive subject to his supervision. "It is my personal philosophy and also the company's philosophy to train the staff captain in order to be able to take over at any time. The captain,



Celebrity Summit

for instance, could have an accident and somebody would have to take over immediately. Apart from the staff captain, I train the safety officer. The safety officer has three and a half stripes and holds a captain's [license] as well."

"So sometimes, if I feel comfortable with other officers, I will step back and let them do the maneuvering but before I do I will give them instructions and explanations on how I am thinking, on what is my philosophy because there is a kind of philosophy and technique behind this maneuver. Most people see a ship coming into port and getting along side, [and think] it is easy. But behind this there is a philosophy, experience, technique."

"If I feel comfortable, I will allow a three-stripe officer to do the maneuvering. But, of course, I would start with undockings primarily. Undocking the ship is easier than dockings. Going towards the land, the pier, is more complicated. Leaving the pier, going away from the pier, is easier. So most probably, I would start with undockings and then easy dockings. Then I will increase the difficulty level."

Commanding a cruise ship involves more than driving the ship. The captain is ultimately responsible for the services provided by nearly 1,000 crew members including waiters, stateroom attendants, engineers, doctors, and others. Captain Frantzis is pleased with the guests' reaction to Summit's crew. "On a daily basis, I meet guests who tell me how happy they are to be onboard, sailing with Celebrity Cruises. Usually, they congratulate me for my staff's performance."

Especially on this ship - - people telling me thank you for a nice cruise, your crew is very friendly, they satisfy our needs at all times."

The crew's performance bears a direct relation to how they are treated. "We have a brand new management style. If we feel that something needs to be corrected, we sit down and talk in a nice friendly way. And our crew really appreciates that and that makes them feel comfortable with us. It does not matter if we have stripes and officers' uniforms. They like that somebody takes good care of them and this is our philosophy. We want our crew to be happy. We want them to do their job with love."