

Captain Moore: Navigating the Sea

Part One - Read to the bottom of this page, then stop.

It's going to be an exciting few weeks. You're traveling across the Pacific Ocean from Asia to the United States on the *President Jackson*, a huge container ship owned and operated by shipping company APL Limited.

The *President Jackson* is a type of ship called a C-10. It can carry thousands of 20- or 40-foot cargo containers. The ship is considered "post-Panamax," meaning it is too wide to go through the Panama Canal. Captain Donald M. Moore, Jr. is the Captain of the *President Jackson*, a position he has held since the ship was launched in 1988.

Captain Moore has been an APL ship captain since 1973. He started his career by graduating from the U.S. Merchant Marine Academy and then serving as a junior officer on a number of ships. Over the course of nine years, he took graduate classes and studied for exams from the U.S. Coast Guard. By taking these courses and exams, Captain Moore was able to become a Third Mate, then a Second Mate, then a Chief Mate, and finally his current title: Master, Any Gross Tons, Ocean. This is the top license issued to ship deck officers and qualifies him to command any size ship in any ocean of the world.

You hope you'll be able to learn a little bit about Captain Moore's job during the trip across the Pacific, so you are pleased – but a little nervous – when Captain Moore asks you to take on an assignment for him.

"Traveling across the Pacific in winter can be challenging," Captain Moore tells you, "because of the winter storms. Learning about bad weather and then finding ways to avoid it without hurting the ship, the crew, its cargo, or its schedule is one of my most important responsibilities as captain."

Then he asks for your help. "Please learn about the types of weather we may encounter in the North Pacific. Then find out where we can get information about ocean weather. Please summarize what you learn in a one-page report with a map. This will help you learn about what I do every day."

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Part Two - *Read to the bottom of this page, then stop.*

You realize the first thing you need is information. You need to learn – quickly – a lot about weather and who tracks it.

Before trying to write your report for Captain Moore, you make a list of the three questions you need to be able to answer:

1. Where is the North Pacific? This sounds like a pretty obvious question, but you realize that you don't know how far SOUTH the North Pacific goes. Does Captain Moore want you to learn only about weather up near the North Pole? Or is the North Pacific larger than that?
2. What kind of weather does the North Pacific get? Specifically, what kinds of storms might the ship have to deal with on the North Pacific?
3. Who tracks ocean weather and what kind of information do they provide? Where would you go to learn more about ocean storms if you were in command of the ship?

Good questions. Now, how do you find the answers?

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Part Three - Read to the bottom of this page then stop.

After talking with members of the *President Jackson's* crew and looking up information in the reference books you find on the ship's bridge, you learn the answers to your three questions.

1. Where is the North Pacific? You learn that the North Pacific is not just the area near the North Pole, but, in fact, the entire Pacific Ocean north of the equator. The *President Jackson* will be in the North Pacific during its entire voyage.
2. What kind of weather does the North Pacific get? You learn that storms can spring up any time in the ocean, but that the major kind of storm in the Pacific is a tropical cyclone: an ocean storm with circular winds that originates near the equator. A cyclone is called a hurricane east of the International Date Line and a typhoon west of the Date Line. The typhoon season typically ends in November, but you learn that typhoons can occur at any time.
3. Who tracks ocean weather and what kind of information do they provide? You learn that a number of organizations around the world track the weather and ocean storms for ships at sea. Ships can receive special radio transmissions about the weather from the National Oceanic and Atmospheric Administration (NOAA) Marine Prediction Center. NOAA uses satellites as well as land and water tracking stations around the world to collect detailed weather information. (The Marine Prediction Center and U.S. National Weather Service work with organizations in many countries as part of the World Meteorological Organization, a United Nations agency that monitors world weather conditions.)

In addition, you learn that there are three organizations that provide specialized information about tropical cyclones: The National Hurricane Center provides information about hurricanes east of the 140th longitude west; the Central Pacific Hurricane Center provides

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information about hurricanes west of the 140th longitude west and east of the International Date Line, and the Joint Typhoon Warning Center provides information about typhoons west of the International Date Line.

You've learned a lot in just a few hours. But now you need to summarize what you've learned for Captain Moore.

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