

## *An Alien World Below* *(Prologue)*

Scientists were always looking up watching for aliens and other possible worlds. No one imagined that there was anything living at the deepest part of the ocean, the Mariana Trench. There is no mystery of how the trench got its name. It was named due to the closest islands. The Mariana Islands.

The depth of the trench was first recorded in 1875. Scientists discovered the massive depression by dropping a weighted rope to measure depth, recording roughly 5 miles (8,184 meters). Can you imagine a rope that long?

A more accurate measurement was conducted using multi-beam sonar and the depth was recorded as 6.8 miles.

Living organisms were first photographed by James Cameron's Deepsea Challenger in 2012. No need to go into deep space to find aliens. Take a look at some of the ones photographed.



How can anything live there.

The pressure at the bottom of the Mariana Trench is 1000 times of that on the surface.

Despite the alien-like condition, where the pressure distorts proteins and vital biochemical processes, life still thrives at the bottom of the trench.

Organisms like the Mariana snailfish and certain amphipods survive by having gelatinous bodies and specialized bio-molecules (like cell membranes and proteins) that remain stable and functional under intense hydro-static pressure.



Mara and Dilip had grown up together in India. They had partnered on many dives. Dilip always liked Mara. She was always friendly but indifferent to his advances. Their families had arraigned for them to be married when they were still kids. An out of date tradition that Mara had no desire to honor. A new graduate from a prestigious oceanic college arrived recently. When James arrived, Dilip could see she showed immediate interest. This brought out his jealous streak.

A dangerous situation considering what's involved in their deep water pursuits and the need to watch ones back.

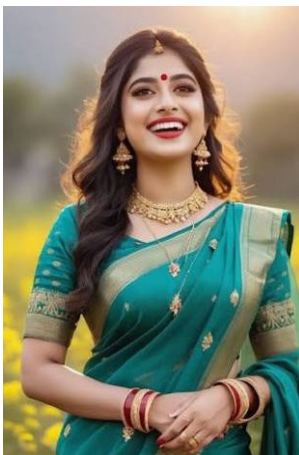
*An Alien World Below*  
(Chapter 1)



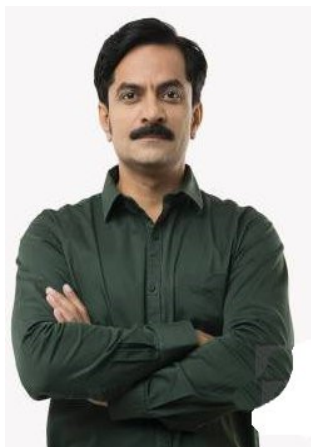
This is their research vessel

They had been on site for two weeks. After gathering many photos of strange deep sea creatures, all were ready to head back to port for a well deserved rest. James had yet participated in any dives. He was still undergoing initiation.

Mara



Dilip



James



It was time to party. You might think nothing was happening in the Mariana Islands. You would be mistaken. The night club ZOH is the most popular place for night life. Mara was something of a free spirit and had visited it

before. Dilip had accompanied her there and curbed her enthusiasm by reminding her of their countries disdain for these kinds of things.



This time, she had invited James. He had no inhibitions against these kinds of things. Dilip was not too happy that James came along.

The three of them got a table near the dance floor. Mara excused herself and headed for the ladies room. As soon as she left, Dilip informed James that Mara was his fiancée. Funny, she had never mentioned that fact before. When she returned, she asked Dilip to dance with her. He shook his head. How about you James? He looked at Dilip and asked, is it alright if I dance with your fiancée? Mara spoke up. What? I am not his fiancée. He is referring to an ancient custom that our parents agreed when we were still kids. She said this as she grabbed James's hand and headed to the dance floor. From the way Mara danced, it was obvious to James that she was uninhibited from those ancient customs. In the middle of the dance, she showed off her skill as a belly dancer. Wow! Where did you learn that? This type of dance originated in the middle east, but has become rather popular in Mumbai. They returned to the table. Dilip sat there with a frown on his face. Come on Dilip, loosen up. We have been stuck on that barge of a research ship for two weeks. Ya! Come on Dilip. I am the new guy. Give me some pointers on

what to expect in the coming weeks. This did loosen him up. It was at least an acknowledgment of his experience and status.

The evening proceeded without any more stress. They all slept in late. James had been on the island for a week or more waiting for the ship to return. He had had a chance to explore some of the highlights of Guam. He happened to run into Mara on his way to the cafe for morning coffee. Care to join me? Sure. Where's your fiance? He said this with a smile on his face knowing that he was teasing her. OK, enough of that. Dilip has been my childhood friend and I want to keep it that way. He can be a little pushy with the traditional Indian culture stuff, but he means well. I think he has something to do this morning. He will probably join us later. Good enough. How long have you been doing deep water research? The conversation turned light exchanging information about school and their respective upbringings. As things wound down, James mentioned about some of the tourist highlights he had seen and some he wanted to see. Mara was instantly interested. How about we met tomorrow morning and get an early start?

James had picked Tumon Beach as a place to start. Why not see some marine life a little closer to the surface than you're use to? Sounds fine with me.





A great place to see some coral reefs and on the plus side to see Mara in a bikini. A win win situation for James.

They did some snorkeling in the morning and finished in time to have lunch at a restaurant James had tried before.



Have you eaten much American food? Not really. Is that all they have here? They offer a variety of foods including local favorites. Let's see what's on the menu.

Fish and chips and a mug of beer. American or English? Perhaps both. A hamburger and onion rings, definitely American.



Chamorro Red Rice combo, definitely local.



The Chamorro people are what the Austronesian people who settled Guam around 2000 BC are called today. So much of their local specialties carry the Chamorro influence.

James ordered both the burger and the Chamorro combo that they shared. When they returned to the hotel, Dilip was waiting for them looking pissed. Where have you been? I have been calling you all day. I left my phone in my room since I knew we were going snorkeling. James has been my personal tour guide since he had already been here for awhile. I hadn't seen much of the Islands and it was a nice change.

I was going to make reservations for dinner for us. James noticed the "us" did not include him. Thanks Dilip, but I am stuffed with burgers and fries. I just need to catch a nap and relax. Maybe we all can have dinner tomorrow. Dilip noticed the term "all" included James too.

So the rest of the week kind of went like that. Mara being pulled in two directions. She did manage to have a dinner with Dilip only, but also went on another all day trip with James to Pagat Cave. She had invited Dilip to go too, but he begged off when he found out there was an arduous hike involved.



## Pagat Cave



When it was ready to venture out again on the research ship, it was obvious to Dilip that James and Mara were acting like a couple. Nothing explicit had been mentioned, but Dilip was not blind.

### *An Alien World Below* (Chapter 2)

Usually a dive takes 2 hours at the quickest to reach the bottom of the Mariana Trench. Dilip and Mara made the first dive. Dilip said James was not ready yet. James was ready, but he suspected Dilip's reasoning had little to do with logic. After the first dive, Mara said she wanted to make one more. It was unusual to make more than one dive per day. This time she insisted that James accompany her. Dilip started to protest, but Mara out ranked him. One of the dangers of these deep water dives is the integrity of the submersible. Even the most modern and tested units sustain wear and tear each time a dive is complete.

During this final dive, the sub sprang a tiny leak. Tiny by most standards, but at 7 miles below the surface, any leak can't be called tiny. She radioed the

surface ship. Dilip volunteered to take the safety bell down to try to weld the breach. The safety bell was a rapid decent unit. He reached the submersible in ½ an hour. By the time he reached them, the sub had water past their ankles. His attempt to patch the leak didn't work. He signaled the ship to haul up the submersible. Due to the extra weight of the water, now up their waste, the cable snapped on the winch. Now the situation went from dangerous to critical.

The submersible had a hatch on top that connected to the safety bell. Kind of like what astronauts use to dock in space. Both Mara and Dilip knew something that James did not. The safety bell could only hold two people.

After the connection hatch was secured and opened, Dilip pulled Mara up and out. Then he started to close the hatch. Mara panicked and shoved Dilip through the hatch door and he fell into the water at James's feet. James climbed out and Mara closed the hatch before Dilip could recover. I'm sorry Dilip. There was no other way. What are you doing Mara? You can't just chose one over the other. I think there is another way. The fallen cable was on the ocean floor. Using the robotic arms, James picked it up and connected it to the safety bell cable. Then he opened the hatch again and traded places with Dilip. During my orientation, I read that this safety bell can ascend at a rapid pace. Take this cable back to the surface and reattach it to the wench. I will wait here for that to be accomplished. No James, it will be too late. It will be if you and Dilip don't get going.

Without wasting another second, Dilip began the ascent. It was ½ an hour before James felt a tug on the submersible. Thank God. It looked like they had connected it back up. This time the cable held. Water was now way past his waste and creeping up toward his shoulders. When the sub breached the surface, it was completely filled with water. Not known by those above, James had run out of air 4 minutes before. He held his breath as long as he could, but when they opened the hatch, he had already passed out. Mara

quickly started CPR. It took several minutes before James spat out the water from his lungs, but he was alive. Dilip, of all people, ran over and shook his hand. I have never known anyone as brave as you.

They all returned to Guam to try to recover from this harrowing experience. This time the situation was more clear. Dilip knew that Mara had chosen James over him down at the bottom. As painful as it was, he had to acknowledge Mara would never be his. And how could he resent James after he had saved his life.

Dilip started treating Mara like a brother instead of a suitor. He didn't even object when he noticed that Mara had come out of James's room in the morning as they went for coffee at the nearby cafe. They were scheduled to go out again in a couple days. Their own submersible was being repaired and needed to go through strenuous testing before it could be used again. Another smaller unit was being requisitioned that they could use in the meantime.

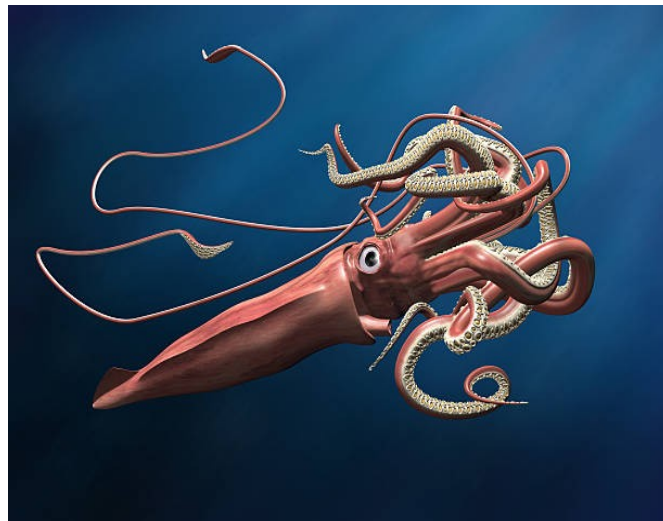
**An Alien World Below**  
*(Chapter 3)*

Back on the water, they were back to work. They had moved to a different spot. The trench is about 1500 miles long and 43 miles wide. Different spots render different results. Each time they moved they found new species.

This submersible was newer than the last, but smaller. It has some new features that the other one didn't have. The lighting system was much more powerful and there were different robot arms with different uses. This time James was the first to mate up with Mara. Strange choice of words. He had already mated up with Mara on dry land.

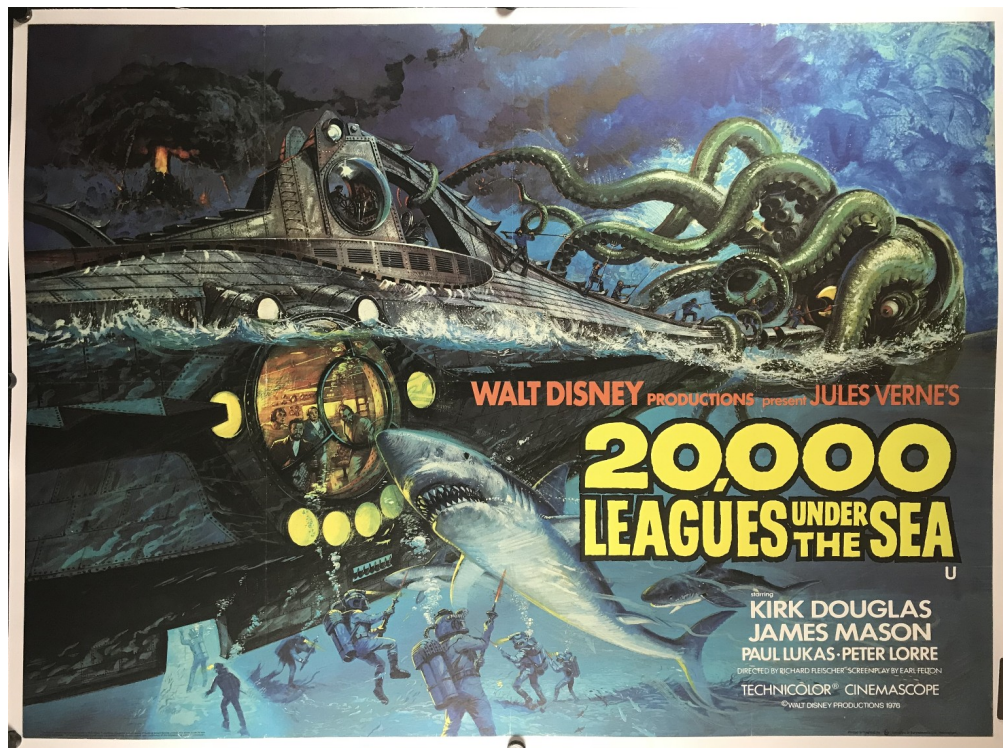
They were more than a mile down when something rammed their capsule. They hadn't turned on their flood lights. Something that was not necessary on the descent. James turned them on now. What they witnessed was

something out of a Jules Verne novel. A giant colossal squid had wrapped its tentacles around their module.



Author's note:

These things can dive to 7000 ft and can get up to 46 feet long and weigh 1500 lbs.



## An appropriate cartoon



Mara radioed the surface ship with the report. They started to bring them back up. James cautioned them that this thing was enormous and the cable might break. He didn't want another scare like last time. Let me see what I can do to discourage this beast from eating us.

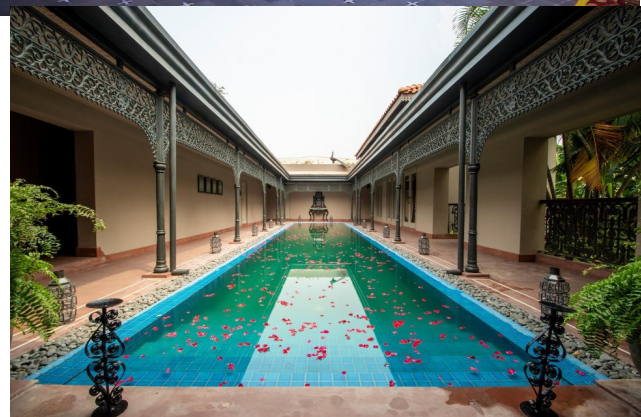
He tried various robotic tools like drills, chisels, and the like. It only seemed to make it angry. Then he lit up the welding torch. As he poked it in several different spots, it finally let go. Pieces of its flesh had melted off. Can anybody say calamari?

OK, now try to pull us up. Apparently, the hot torch routine did the trick. Back on the surface, James told Mara that maybe he ought to try another career. Twice within a week he almost found himself seven miles down on the bottom of the ocean. Mara was pretty rattled too. She told the crew that she needed some time back home.

Dilip had partnered up with a new assistant fresh out of school. It looked like he had found a new woman to hound. He offered to continue the dives.

Mara and James found themselves back in Guam. What are you going to do now, she asked James. Not sure what to do. Why not come visit my home city? I can be your tour guide and return the favor. This suited James just fine. They first flew to Calcutta. Now, officially changed to Kolkata. Why the name change? India is trying to erase some of the British influence and return to names used by the indigenous people. Same thing for Bombay changed to Mumbai. I have never been to India. Is there anything interesting to see in Calcutta, I mean Kolkata? Yes, this is a rich historical city with many amazing sites. Let's spend some days and nights here. Besides, when I get home I want you to meet my parents. They will offer to let you stay, but as you might expect, we cannot stay in the same room. Yes, I would expect that. That doesn't hold true for here though. I already booked a great hotel.

Author's note: I checked with Priceline.com. A five star hotel in Kolkata costs \$59 per night. Something about cheap labor, low cost maintenance, etc.



Of course we tried the local foods.

Deep fried flat bread

LUCHI



Hot and sweet potato curry.

PHUCHKA



I would call this an Indian Burritos

EGG/CHICKEN/MUTTON ROLL



Kolkata Biryani



So what is there to see in old Calcutta?

We forgone the typical museum scene. You want to see the real Kolkata, go to the street markets. That's what we did. This picture shows why India is the most populous country in the world. They took over that title from China recently.



The Muiylick Ghat Flower Market in Kolkata, India, is one of the largest wholesale flower markets in Asia. Established in 1855, it is culturally and economically significant as the primary floral source for weddings, festivals, and daily religious rituals across Eastern India, as well as a major tourist attraction. Those things that look like orange and yellow ropes are flowers.



These three days and nights in Kolkata served its purpose to let us forget the last dive adventure. We enjoyed the food, scenery, hotel and each other. Time to head to Mumbai.

SONDESH



These look like cookies, but are really made from cottage cheese.

***An Alien World Below***  
*(Chapter 4)*

This is Mumbai, a city of historical sites and awesome scenery.



This is also Mumbai, a modern city bordered by a shanty town.



Fortunately, Mara lived in the prosperous part. How else could she have reached such a high academic level? Her home wasn't opulent, but modern enough to have a "real bathroom" with "real toilet paper". Still, she cautioned me to only use my right hand to eat finger food.

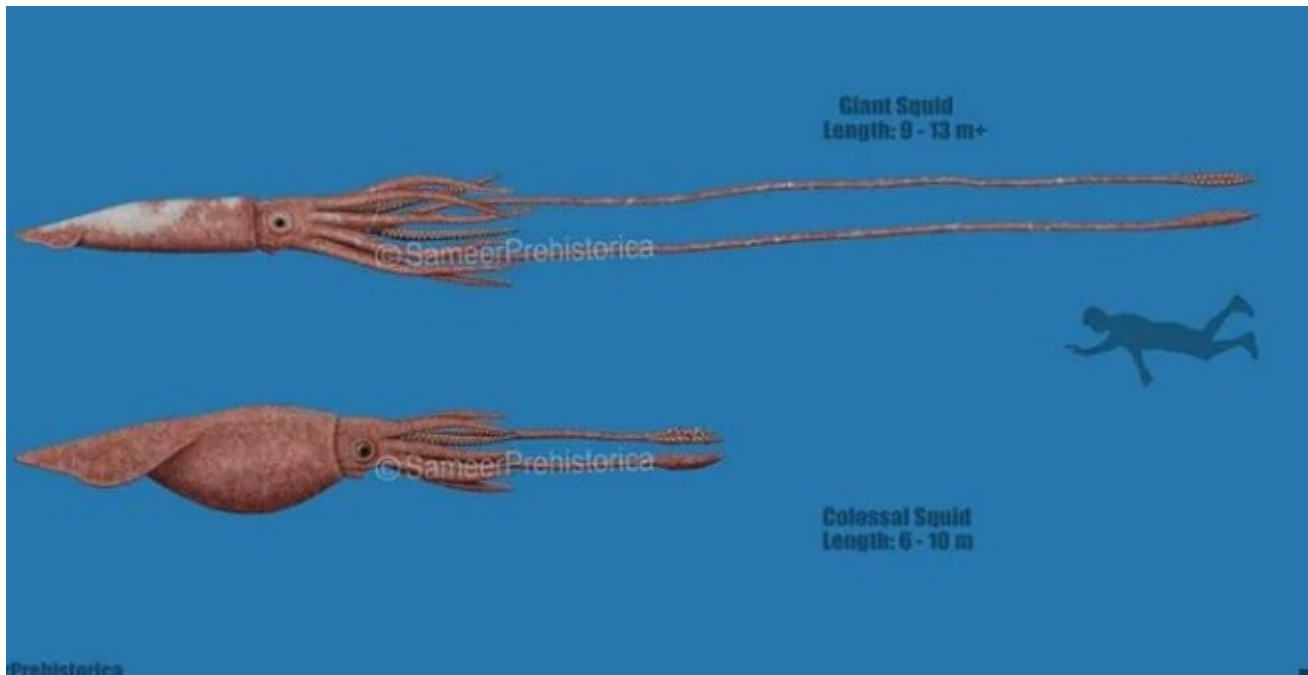
In Indian culture, people only use the right hand to eat because the left hand is traditionally reserved for personal hygiene, such as cleaning and sanitation after using the restroom. Using the right hand keeps the dining experience sanitary and respectful to others. Her parents welcomed me just as she had predicted. It was obvious that they recognized me as a boyfriend. Mara had never brought home anyone other than Dilip.

They were preparing dinner and her parents asked me what kind of dish I preferred. Mara gave me a look with her dagger eyes warning me not to ask for a hamburger. She already knew of my playful personality, but I wasn't that stupid. I told them I had really enjoyed the vegetarian dishes in Kolkata. Her face returned to her normal smiling beauty.

Some Indians do eat meats and dairy. Primarily chicken. Beef and rabbits are banned in many city. It is done state by state.

I found her parents very open and inquisitive. Of course they asked about Dilip. I told them I had made good friends with him and he had taken over the diving operation. Why aren't you both on the ship? Mara told them

about our recent encounter with the colossal squid. She showed them this comparison of size she had downloaded from Google.



They were both appropriately concerned. Mara had kept the story about the leak at seven miles down from them.

So vegetarian it is. Not a disappointing affair. Check out the dishes Mara's mother made for us.



I particularly liked the tofu curry. Mara's dad brought out an old traditional drink called Palm Toddy. AKA Tari. A fresh, mildly alcoholic, and milky sap tapped directly from coconut or palm trees. It ferments naturally within hours into a tart, slightly acidic beverage. A side conference with Mara warned me not to drink too much. It seems to have a light effect at first, but doubles down later. I should have heeded her advice.

At night I was escorted to their guest room. A very traditionally appointed room. I was not Yao Ming, but I wasn't Mickey Rooney either. My feet stuck out a foot beyond the end of the bed.



Waking up the next morning with a slight hangover, I still didn't want to miss the day Mara had planned for us. She honored her promise to be my tour guide. Mumbai is rich in history and beauty. You have to look past the slums.

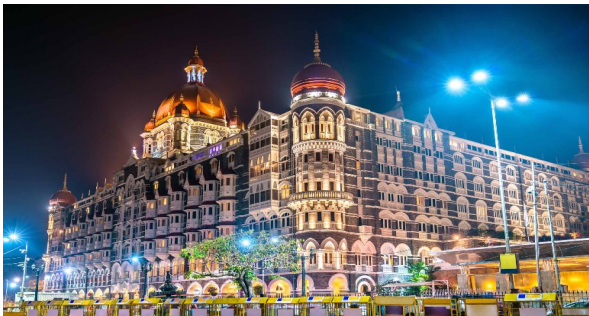
One of my favorite movies was "Slumdog Millionaire". Riding trains in India. Another example of their over population.



So we started out visiting the elephanta caves.



The Elephanta Caves, located on Gharapuri Island in Mumbai Harbor, are a complex of ancient rock-cut temples dating back to the 5th to 8th centuries BC. Originally a Buddhist site, the caves were later carved as magnificent shrines dedicated to the Hindu god Shiva. Check out these sites.



Day view of Marine Drive in Mumbai

Night View



We shared the most romantic spot in Mumbai.



When we returned to her parents home, there was some unsettling news. A typhoon was reported in the vicinity of the research ship. This ship was a substantial vessel. But larger ships were known to succumb to Mother Nature.

*An Alien World Below*  
(Chapter 5)

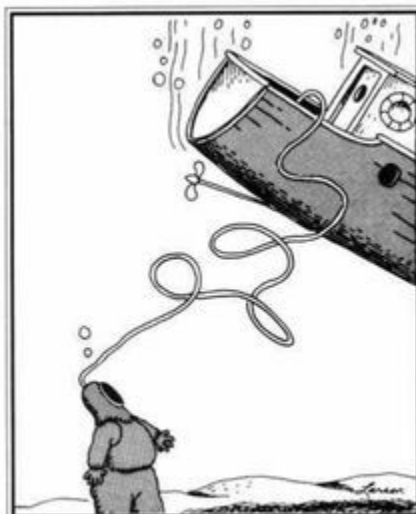
The captain of the research ship reported to Dilip about the oncoming typhoon. We have had too many setbacks. We are way behind schedule. Is there time to make a dive? There is if we start soon. What about the ship's safety? This ship can sustain just about anything. The captain's bravado about his ship's ability to sustain just about anything would come back to haunt Dilip. He had missed Mara, but with Amaya around, he had switched his interest. She was not as pretty as Mara, but she had something Mara did not have. An appreciation for Indian customs. In fact, she was even stricter than Dilip. It also seemed that she had quickly developed some affection for him. Dilip did command respect for his professionalism. With Mara gone, he was clearly in charge.

## Amaya



During the 2 hour descent, the weather on the surface quickly turned catastrophic. The captain severely underestimated the strength of this storm. When Dilip radioed that they had reached the bottom, there was no acknowledgment back of his message. After several more attempts, he realized why. He saw the cable, that was supposed to be attached to the submersible, ripple down to the ocean floor. Amaya asked what's wrong? It looks like we lost our lift back up. What can we do? The first thing I need to do is detach the cable from our eyelet. He managed to do that using the robotic arms. This newer version had some additional safety measures that the old one did not. In fact, it did not need the cable to reach the surface. It had ballast tanks like a real submarine. He could initiate the rise with the push of a button.

This Farside cartoon would be funny to anyone else, but to Dilip, it represented his current situation.



He did not know what happened to the research ship. It wasn't the typhoon exactly that sealed the fate of the ship. It was the rogue wave probably caused by the typhoon. A 50 ft wall of water hit the ship broadside and flipped it like a toy.

It took Dilip and Amaya four hours to get back to the surface. By that time, the worst of the typhoon had passed. The seas were still rough and the submersible was bobbing up and down like a cork. They were not in any immediate danger. The integrity of the sub was intact. The danger was the fact that they had no long range radio contact ability. The communication with the surface ship was short range.

Both Mara and James knew they had to fly back to the Mariana Islands. It took them a day and a half to get there. There was no contact with the research ship. Mara ordered a search of their last known location.

Dilip and Amaya had been floating around for the last two days going on three. Their main concern now was water. They had already consumed the sub's supply and with no means to replenish, dehydration was what they feared the most. It wasn't like they were in a life raft with a water making machine and flares. A person can survive for a couple months without food, but only three days without water.

At least the sub was white and although small compared to the vastness of the sea, James spotted them from the air. He radioed the nearest ship and Dilip and Amaya were picked up within the hour.

After medical checkups, food, and lots of hydration drinks, they were OK. They were released from the hospital two days later. James and Mara picked them up at the hospital and brought them to a hotel he had booked.

I am always an early riser. Even though the room had a coffee machine, I prefer to go to a cafe and have good coffee with a bagel or muffin. Who do I run in to coming out of Dilip's room? None other than Amaya. No look of

embarrassment or avoiding eye contact, she said I will join you for some coffee.

This did not surprise me. Her and Dilip had spent almost three days together in a small capsule not sure if they had a future. After the water and food was gone, what else was there to do.

According to physiologists: Here are the top 5 human needs.

#1 Basic survival necessities like food, water, sleep, clothing, and shelter.

#2 Protection from violence, job and financial security, and emotional/physical well-being.

#3 Social interactions, friendships, intimacy, and family connections.

#4 Self-respect, confidence, achievement, and the respect of others.

#5 The realization of personal potential, self-fulfillment, and pursuing personal growth.

So sex is #3. Explains why India is so overcrowded.

Amaya thanked me for rescuing them. She said Dilip was particularly thankful since this was the second time I had done it. We had initially gotten off on the wrong foot, but if there are any weddings planned in the future, we might volunteer to be each other's best man.

**The End**