## Day 5 - 29.8.2022

## The most beautiful sunrise of my life

Split between two minibuses, we headed towards Space-Coast Regional Airport Titusville. It was 0:30 in the morning, when we joined the long line of cars that led up to the parking lot. After half an hour, we found ourselves at the front of the line and were directed to our parking spot. It was unbelievable how many cars were in this area alone, with it only being a small fraction of the people, who want to see the launch. <a href="https://www.flickr.com/photos/spaceeducation/5https://youtu.be/DKJ-Sunj7xY2325570136/sizes/l/">https://www.flickr.com/photos/spaceeducation/5https://youtu.be/DKJ-Sunj7xY2325570136/sizes/l/</a>

The feeling I had when I got out of the car is hard to describe. It felt like being asleep, yet wide awake at the same time. It was surreal like walking in a dream.

We gathered next to the cars, packed provisions and cameras, and walked together to the bus. Powerful spotlights illuminated the parking lot, which was incidentally on a lawn inside the airport runways. You could see the parked planes from here.

There were a total of 16 of us, so we were complete. Tickets were checked before we boarded the big tour buses. When you stood in front of them, it felt like you were standing in front of a wall. They were huge, but nothing compared to the moon rocket. <a href="https://www.flickr.com/photos/spaceeducation/52325934965/sizes/l/">https://www.flickr.com/photos/spaceeducation/52325934965/sizes/l/</a>

Once the air-conditioned bus was full, we headed out. It was still pitch black; the interior lights were off. I sat next to the Mexican team. After 15 min our bus leader announced our arrival, showed us the toilet routes and the many mobile bistros with coffee and cake.

Then we went to the VIP stand: we walked through the gap between the constructions, which were about 3 m wide. Many people were in front of me, attracted by the incredible view of the SLS rocket. Nobody looked anywhere else than at the rocket. People moved along dreamily and stopped at every corner. When I finally stood at the head of the crowd, a view opened up, like a veil, the effect of which cannot be described. Only 3 miles (about 5 km) away, 98 meters high and 2600 tons heavy was the colossus, which should take off in less than 6 hours. Madness!

https://www.flickr.com/photos/spaceeducation/52325931040/sizes/l/

The rocket was illuminated on all sides by bright cones of light that poked straight through the clouds. Due to the high humidity, you could see their trajectory that covered the rocket like a transparent veil. But precisely because of this, it glowed like a huge star. Brightly illuminated on the horizon.

https://www.flickr.com/photos/spaceeducation/52324618982/in/album-72177720301750579/

https://www.flickr.com/photos/spaceeducation/52325918579/sizes/l/

https://www.flickr.com/photos/spaceeducation/52325940020/sizes/l/

It was pleasantly warm; the place of the grandstand was illuminated and the benches were wet. We spread out on two rows of seats and had another look around. It was still unbelievable. After 30 minutes, everyone had settled in. The seats slowly filled up and so did the internal storage of the cell phones.

2:48: David passed 2 binoculars around, with which we tried taking better photos. Although this worked, Ralf was much better off with his camera equipment. From now on we had to wait. Everything was on Go. Thus 30min...1h....2h...3h.. passed.

At 5:15 the sky was still black and the rocket was brightly illuminated. All at once, a small red flickering fire was visible on the left side of the tower. Excitement swept through the crowd. After a glance through the telescope, it was more clearly visible. Doubts quickly arose, it looked like something was out of control. After 10 min, calm returned. It was explained that it was only the combustion of superfluous hydrogen gas. The flare was at a safe distance from the launch pad just behind the rocket. The perspective fooled us.

https://www.flickr.com/photos/spaceeducation/52325927259/sizes/l/

Now Ian, Turner and I headed to the Saturn V Center to shoot videos for social media and a German TV station. This worked out well. We stood at the base of the first Saturn V lunar rocket, which stood lengthwise on stilts. Just under 54 years ago, a rocket like this took off toward the moon for the first time. This one was for Apollo 19 and the 2nd and 3rd stages are here now. What few of the visitors know is that the big 3rd stage is a dummy. The original is in front of the Infinity Center at the Stennis Space Center in Mississippi. I've sat on it before.

https://www.flickr.com/photos/spaceeducation/33796475978/in/album72157680016481428/

Lots of people darted around among the exhibits as we admired the 5 huge thrusters. They were F-1 engines, 3.7 meters in diameter, the largest in the world up to this day, and huge!

6:45 a.m.: Suddenly, blue sky and pink-red-orange clouds were reflected on the glass wall of the Saturn V Center. The sun was rising. We quickly finished our filming and ran outside. We caught a first glimpse through the palm trees and coastal plants, but when we were exposed to the full sight at the grandstand, a wave of emotion overtook me. https://www.flickr.com/photos/spaceeducation/52325573361/sizes/l/

https://www.flickr.com/photos/spaceeducation/52324616947/sizes/l/

This breathtaking sight of the SLS rocket, the most powerful moon rocket on this planet, whose silhouette, together with the cable tower (from the book: Apollo 8, Jesco von Puttkamer) and the three lightning rod towers, surrounded by gold shining sunbeams, was visible, was unique. The fireball, which we call sun in our solar system, rose slowly and diagonally next to the rocket. The sky went through many color spectrums. From red-pink to red-orange further to orange-yellow in a long period of time. The great cloud towers, which were certainly higher than 600 meters above the ground, because of the safety distances, looked more magnificent than ever in their mighty, almost majestic appearance. Touched by the first rays of the day's sun, they had a golden rim. All this spectacle was reflected in the waters of Banana Creek. Magical. https://www.flickr.com/photos/spaceeducation/52324620532/sizes/l/

Now everyone was even more excited than before. The big screen was now playing the live broadcast, which I'm sure thousands of people were also watching. We took advantage of the daylight to conduct interviews about everyone's thoughts and emotions. Ian guided the camera and interviewed everyone.

https://www.flickr.com/photos/spaceeducation/52325808993/in/album-72177720301759493/

T-60min: the tension grew bigger.

T-40min: from here on, the countdown stopped. Now all the checks were done again. Everything seemed to be on go.

But when nothing had happened for half an hour, the speaker from Mission Control spoke to us over the loudspeakers. The RS-25 engines installed in the first stage have been flushed with some frozen liquid fuel. This is necessary to cool them down to the

desired temperature. However, the hydrogen vent on the fuel system had failed and the engine had not been cooled. They simply waited for a longer period of time in the hope that the cooling would be sufficient after all. But to no avail.

20 min. later: The flight director (Charlie Blackwell-Thompson) had to cancel the takeoff for this reason: "We have a SCUB". A wave of sighing went through the crowd. You could feel the disappointment. Everyone got up and headed to their buses, just as announced through the loudspeakers. We too were told to get back to the car quickly. https://www.flickr.com/photos/spaceeducation/52325942090/sizes/l/

https://www.flickr.com/photos/spaceeducation/52325572971/sizes/l/

https://www.flickr.com/photos/spaceeducation/52324622027/sizes/l/

https://www.flickr.com/photos/spaceeducation/52324619962/sizes/l/

There it was. Fueled, checked and practically ready to go, yet still on the ground. As we now know, even until 9/3/2022.

It was sad to see the rocket still on launch pad 39B during the bus ride. I would have loved to have witnessed its launch today. But it would have been dangerous. Components of the engine could have burst because of thermal stresses, like a cold cup you pour too hot tea into. It is not imaginable, what kind of explosion that would cause. That's why was a good thing.

After arriving at Titusville Airport, we went back to our cars, got in and drove straight to the Mexican team's vacation home. We loaded our dropped off luggage and said a temporary goodbye to our Mexican team members.

https://www.flickr.com/photos/spaceeducation/52325917469/sizes/l/

Next stop: the Beachside Hotel in Cocoa Beach.

It was 11 am in the morning and check-in hadn't opened yet. We enjoyed the hotel pool and caught some sleep since we had been awake for over 30 hours by now. Valeria will be staying with us.

Finally, the door to our room opened. Until then, I had hardly felt any tiredness, but when I lay down and closed my eyes, I fell asleep along with my mission shirt. I woke up after more than 18 hours.