

Scholar's Advanced Technological System

- Chapter 692 - Do You Need Help?

Chapter 692: Do You Need Help?

The day after the bidding conference.

That same auditorium.

Lu Zhou stood in the front of the auditorium and spoke in a loud and steady voice. He was giving a computational materials science lecture to some Harbin Institute of Technology students.

“The advantage of computational materials science is that we can avoid many unnecessary mistakes through calculation, and get rid of human scientific bias, and use a more pragmatic approach to find the answers we want.

“Take the Theoretical Model of the Electrochemical Interface Structure as an example. I will briefly explain the application of mathematical methods such as functional analysis into the field of computational materials science...”

The venue was fully packed, shoulder touching shoulder, and some people were even sitting on the ground.

After hearing about the conference, students from Harbin Institute of Technology and other nearby universities as well as some researchers who graduated years ago, who were working in nearby research institutes, all came to this seminar.

In order to maintain order at the venue, Harbin Institute of Technology placed almost half of their security guards around this venue. Even though this added a lot of trouble to the teachers at Harbin Institute of Technology, judging by Academician Zou's face, he was quite happy.

In response to their enthusiasm, Lu Zhou gave his 110% into this lecture.

The Theoretical Model of the Electrochemical Interface Structure had caused a huge sensation in the fields of computational materials science and surface chemistry. Because of this theory, Lu Zhou was awarded the Hoffman Prize by the German Chemical Society and the joint nomination of several Nobel Prize laureates.

Both the theory itself and the mathematical methods he described in the report was inspiring, both for people in materials science and applied mathematics.

Therefore, everyone in the venue listened carefully.

Regardless of whether or not they understood what was going on, they all wrote their own notes.

Both the students and the professor.

Both people from the chemistry department and the mathematics department...

The lecture was held from 10 am to 1 pm.

The lecture was originally scheduled to end at 12:30 pm, but it was extended by half an hour. Less than ten people left the lecture before it was finished.

After the lecture was finished, the entire auditorium was filled with thunderous applause.

Lu Zhou looked at the teachers and students in the crowd. He nodded and began to walk off the stage.

He spent the entire morning lecturing, and by now, everyone in the venue was hungry and tired.

Lu Zhou followed the staff member and went to the school cafeteria.

The school prepared a table of food for him at the faculty dining floor.

"Professor Lu, on behalf of the students at Harbin Institute of Technology, I'd like to thank you! Thank you for bringing your wonderful lecture to our students!"

“Academician Zou, you’re too kind.” Lu Zhou toasted Academician Zou and humbly smiled. He said, “I wonder if you can give me a tour of your laboratory this afternoon?”

“Oh, I nearly forgot.” Academician Zou put down his cup and patted his forehead. He smiled and said, “No problem, I’m happy you’re so interested in my research! I’ll take you there after lunch!”

Lu Zhou smiled and said, “Thanks, you’re too kind.”

After eating lunch, the group of people left the cafeteria.

As Academician Zou walked along the tree-lined path leading to the laboratory, he smiled and asked, “What do you think of the campus of our Harbin Institute of Technology?”

Lu Zhou walked along the tree shade and saw the library nearby. He smiled and replied, “It has a strong engineering atmosphere.”

“That’s our specialty. We are training the future national defense talents, and engineering is the strongest field in our school.” Academician Zou paused for a second and smiled. He then said, “If you have the time, I hope you can give more lectures at our school.”

Lu Zhou smiled and nodded.

“I definitely will.”

Academician Zou didn’t invite Lu Zhou to stay as a staff member. After all, he knew this wasn’t realistic.

Even Yan University and Shuimu University weren’t able to poach Lu Zhou, much less Harbin Institute of Technology. Inviting Lu Zhou for a few lectures was already more than enough.

Even Academician Zou was able to learn a lot from Lu Zhou’s lecture.

Soon, the group of people came to a six-story tall building.

After they crossed the security gate, Academician Zou brought Lu Zhou into the laboratory.

“This is the thing I told you, the bionics prosthetic laboratory. My hydroxyapatite and titanium biocomposite project teams all work here. There is also a research team from Aurora University, and they would occasionally come here and collaborate with us. Of course, they are mainly responsible for the neural interface, and we are responsible for solving the material and mechanical problems... Right this way.”

Academician Zou opened a door and brought Lu Zhou into the laboratory.

The two researchers standing next to some experiment equipment noticed the door opening.

The two researchers were about to say hello to Academician Zou when they noticed Lu Zhou. The researcher who was wearing a pair of glasses instantly looked surprised, and he excitedly took two steps forward and asked, “You... You are Lu Zhou?”

“Oh... yeah.” Lu Zhou was a little embarrassed. He smiled and said, “I’m not disturbing your work, am I?”

“No, you’re not, please sit down, I’ll make a cup of coffee.”

“No, it’s fine, Academician Zou is just giving me a visit, I’m not staying for long.”

The researcher finally calmed down, and Lu Zhou followed Academician Zou around the laboratory. They arrived at a transparent container around one or two meters long. Inside the container was a pair of mechanical arms, which were mounted on a metal base.

Lu Zhou looked at the robotic arms.

“Can this thing move?”

Academician Zou smiled.

“Of course it can! Some things have to be adjusted, but it’s basically functional... Do you want to try?”

“Please, I’d be glad to.”

The device used to control this robotic arm was a separate hollow metal ring. Lu Zhou placed his real arm through the metal ring, like a fencing guard.

After the researcher who was wearing glasses did some adjustments, Lu Zhou felt a slight tingling feeling in his elbow, but soon, the feeling disappeared. Two tiny probes were penetrated into his muscles, collecting neural signals transmitted from his arm.

“Is it done?”

“Should be fine.” The researcher tapped a few buttons on the computer and a fluctuating electrocardiogram-like line appeared on the screen. He smiled at Lu Zhou and said, “Try to punch something.”

Lu Zhou tried to punch the air.

Then, a miracle happened.

His real arm didn’t move; it only slightly jittered forward. Instead, the robotic arm inside the container punched forward awkwardly.

Lu Zhou was intrigued. He looked at his “dead arm”.

“Did it block my neural signal?”

He pinched the palm of his right hand with his left hand.

Emm...

I still feel pain.

That’s weird!

The researcher standing next to them said, “Actually, it’s not blocking anything. After all, this is only used to collect experimental data, so it’s not a fully-developed technology... In fact, as long as your nerve cells are healthy enough, you should be able to lift your hand. At most, they would feel a little weak, like you just finished weightlifting.”

“I never weightlift... But this is an interesting invention,” Lu Zhou said as he moved his arm, but only some of the movements were able to be replicated by the robotic arm.

Just like the researcher had said, this technology was in its early stages.

Even so, this technology was full of potential.

Unlike exoskeletons that amplified human movements, this kind of device allowed one to operate machinery that was far away from one's human body just by relying on transferring neural electrical signals into digital signals.

If this technology could be fully developed, not only would it be applied in the medical equipment field, but it would also play an unexpected role in many other fields!

Academician Zou shook his head and said, "Not really an invention. The neural bypass system appeared in Nature as early as April 2016. Our project is only a sub-branch of this technology. From what I understand, MIT is at the forefront of this technology, and they've already achieved some amazing results. We're just trying to catch up to them."

"It doesn't matter who's at the forefront." Lu Zhou took off the ring and touched the two tiny holes in his arm as he said, "If only it can be connected painlessly... This needle is quite long."

The researcher standing next to them made a helpless gesture.

"There's no need for that since this thing is originally intended for amputees. It generally won't be taken off."

Lu Zhou smiled and said, "I think this technology is applicable beyond amputees. If someone installs this on their spine, could they remotely control an entire robot?"

Academician Zou smiled and said, "That's an interesting idea, but probably too difficult to implement. The spinal neural signal is 100 times more complicated than limbic neural signals. Also, this is related to the overall health and comfort of the nervous center, it's not something we can do experiments on easily."

Lu Zhou nodded thoughtfully.

"You're right."

Lu Zhou returned the equipment to the researcher and walked around the laboratory.

Lu Zhou was at the entrance of the research institute, and he was about to leave. He suddenly stopped and looked at Academician Zou.

“Oh yeah, Academician Zou, I have something else I want to ask you.”

Academician Zou asked, “What?”

Lu Zhou smiled awkwardly.

“Do you need help with this project?”

Chapter 693: Experts Have the Final Say

Beijing.

Ministry of Industry and Information Technology.

An old man with thin hair was sitting at his desk. After he finished reading the report in his hand, he shook his head and gently dropped the report on the table.

“This thing isn’t handled properly.”

Yesterday noon, the tender conference for the moon landing project came to an end. The conference information was quickly delivered to his desk.

Even though the moon landing project was being handled by a second-level government department, the Communist Party of China attached great importance to this project. The higher-ups had repeatedly asked about this project many times. Therefore, as the leader of the Ministry of Industry and Information Technology, he had to put 110% of his effort into this matter.

However, who would have thought that such a huge disagreement had already appeared...

Ion thruster propulsion or chemical rocket propulsion?

If possible, it would be better to go with both of those technical routes. Unfortunately, the moon landing project funding was limited. Even though the state’s investment was large, it wasn’t unlimited.

Choosing between these two was a difficult decision.

The middle-aged secretary looked at the leader sitting there in silence. He tried to figure out what the minister was trying to say.

Is he unhappy with Director Li's approach?

Or does he not know what to do?

The secretary paused for a second and asked, "There is no contract for this bet, it's just a verbal agreement... Should I discuss with both sides and let them take a step back and cancel the bet?"

The minister smiled and shook his head.

"There's no need to do that."

There's no need to do that.

But weren't you the one who said this isn't being handled properly?

The secretary was muddled.

However, even though he didn't know what to do, from his past experience from working in the department, he knew that his best option was to shut his mouth.

The minister glanced at the secretary and said, "Secretary Li, this thing isn't being handled properly, but it's not entirely wrong. The academic experts can argue however they want. We can decide after the argument ends."

"Are you saying to leave them alone?"

"Not exactly." The minister shook his head and said, "Compared to China Aerospace Science and Technology Corporation, Star Sky Technology is still too small. To be fair, we should help Professor Lu."

Because of Professor Lu's reputation, he wasn't worried about China Aerospace Science and Technology Corporation using malicious strategies.

Letting the two companies compete fairly was beneficial.

The most important thing was that, no matter what, the state would still come out on top in the end...

The minister couldn't help but smirk.

The China Aerospace Science and Technology Corporation had been cruising along for too long; it was time to give them some pressure.

The secretary immediately asked, "How do you plan on helping them?"

The minister thought for a while before saying, "Contact the Air Force Equipment Department and ask if they're interested."

"I don't know a lot about space shuttle and ion thruster propulsion systems, and neither do you."

"Whether or not it is worth researching..."

"Let the experts have the final say!"

...

Academician Zou obviously welcomed the cooperative research proposal from Lu Zhou.

The Institute of Computational Materials of the Jinling Institute for Advanced Study was well-known in the field of materials science. Whether it was the facility, equipment, or the professionalism of researchers, it was ranked among the top in the world.

Not to mention the tremendous achievement of helping in the controllable fusion project, there was no reason for Aurora University and Harbin Institute of Technology to refuse the collaboration.

Also, aside from these resource advantages, being able to have a Nobel laureate involved in the project would mean more support at both the enterprise and national levels. This was much better than letting a single academician lead the project.

After signing a cooperation research and development agreement with the Harbin Institute of Technology, Lu Zhou got on a plane and returned to Jinling the next day. On his way back, he sent his researchers the information about the research project and assigned tasks to each research team.

Generally speaking, the research projects that were taken on by the Institute for Advanced Study could be divided into two parts. One was the “neural interface” and the other was the “bionics bone”.

The former was jointly handled by the Institute of Computational Materials and the newly established Institute of Information Engineering. This had the same priority as the “carbon-based chip” project that began a year ago. The latter was a cooperative project between the Harbin Institute of Technology and the Institute of Computational Materials and had a lower priority than the “lithium-air battery”.

As for the projects such as the servo motors and the neural electrical signal processing used in the robotic arms, the Jinling Institute for Advanced Study hadn't recruited experts in this field, so Lu Zhou decided to step aside.

Even though these technologies were equally as important, they didn't interest him.

There were so many research projects, it wasn't like he could take on all of them, right?

Even if other people didn't mind, his energy would be drained from all of these projects.

Of course, even though these projects were immensely interesting, most of his energy was still focused on aerospace.

After Lu Zhou's flight landed in Jin Ling City, he didn't even return home. He immediately went to the space shuttle assembly center and found the person in charge—Hou Guang.

Lu Zhou saw this the lanky chief engineer and was about to speak, but the chief engineer spoke first.

“I've heard CEO Chen talk about the bet you made.”

“Good, that saves me from explaining it.” Lu Zhou thanked Chen Yushan in his heart and said, “The schedule is tight, I know this is very difficult, but this is integral to our project. I hope we can get a working prototype by January next year.”

“January next year?” Hou Guang nodded reluctantly as he said, “I’ll do my best.”

Even though this task was difficult, it wasn’t impossible.

After all, he had personally witnessed the processing capacity of this factory.

Also, most of the engine components had been developed, and they could refer to the 863 plan technical reserves for the remaining technical problems. As long as the few key problems were solved, building a prototype shouldn’t be a big problem.

At most...

I’ll just spend a few nights in the office!

Hou Guang clenched his teeth and said, “There’s one more thing.”

Lu Zhou said, “What?”

“We are still missing an astronaut to test the prototype.” Hou Guang paused for a second and said, “Of course... There are a lot of things the astronaut needs to do, so it’s best if we get two.”

Lu Zhou patted his head.

“I nearly forgot about this... Okay, I’ll find a way to solve this. Is it urgent?”

Hou Guang said, “Not super urgent, but preferably within a month.”

Within a month?

Lu Zhou rubbed his chin.

There’s no way I can train astronauts in time.

Space shuttle pilots were much more in demand than ordinary pilots. Not only did they have higher physical fitness requirements, but they also had higher mental capability requirements. Finding or training a person capable of a flight mission like this was going to be difficult, especially because of the limited time and capital.

Lu Zhou looked a little awkward.

I don't want to trouble him...

But it looks like I'll have to use my connections...

Chapter 694: Skyglow

Borrowing two pilots from some departments would be the easiest way to go about this.

However, the cumbersome part was that he wasn't familiar with the Air Force. He didn't know where to borrow the appropriate pilots. However, the problem seemed to solve itself.

The second week after the moon landing bidding conference, after Lu Zhou had finished writing the letter, the space shuttle assembly center welcomed several special guests.

Inside the reception room at the aerospace assembly center...

The secretary of the Ministry of Industry and Information Technology introduced Lu Zhou to the chief engineer of the Air Force Equipment Department, Academician Wu Kang, as well as the minister of the Air Force Equipment Department.

This old man in a military uniform looked serious and stern. He gave off a solemn vibe.

"This is the head of the Air Force Equipment Department, Minister Qin Zhuangyan."

"Minister Qin, nice to meet you."

Lu Zhou wasn't sure if he should shake the minister's hand, but the minister reached out his hand first.

"It's a pleasure to meet you, Professor Lu."

After Lu Zhou shook hands with several other experts from the Air Force Equipment Department, Minister Qin spoke to him.

“Professor Lu, I’m sure you’re a busy person, so I won’t waste your time. I apologize in advance for being straightforward.”

Lu Zhou smiled and nodded.

“No, it’s totally fine, I don’t like small talk anyway.”

Minister Qin nodded and spoke in a serious manner.

“I’m sure that the Ministry of Industry and Information Technology has already contacted you before I came here. I only have one question, can your ion thruster propulsion engine really produce 200 kN thrust?”

Lu Zhou thought for a bit and said, “I’m not sure about your stability requirements... but it should be fine if you’re using it to send space shuttles into low-Earth orbit.”

The experts standing behind Minister Qin looked shocked.

Even though they had seen the data sent from the Ministry of Industry and Information Technology, seeing it on the PowerPoint was far less shocking than hearing Lu Zhou say it in person.

Especially Academician Wu, who was even more excited.

According to usual aerospace engine standards, 200 kN of thrust wasn’t very large. Even the Trent-800 from the Boeing 77 had double the thrust.

However, if someone were to take the continuous flight time into account, very few conventional fuel engines could stand up against the ion thruster propulsion engines equipped with small nuclear fusion machines. Even though the 200 kN thrust was much lower than traditional jet aircraft, the extreme endurance of the nuclear fusion propulsion can outlast any traditional aircraft...

Instantly, an idea popped into his mind.

Airspace strategic bomber jet!

If this ion thruster propulsion engine is really as magical as Lu Zhou describes it to be, then this would be perfect for bombing planes!

He wasn’t the only one that had this idea.

Obviously, Minister Qin, who was standing beside him, also had this idea.

After hearing Lu Zhou's explanation, Minister Qin instantly looked a little excited. He looked at Lu Zhou and asked sincerely, "I wonder if you can show us the ion thruster propulsion system?"

Lu Zhou looked at Minister Qin's eager face and smiled.

"Of course I can, you guys happened to come here at the right time. We just finished assembling a Hall-effect thruster yesterday, and now, the thing is lying on the rocket engine test bench, waiting for testing. If you guys are interested, just follow me."

Right after Lu Zhou finished speaking, Academician Wu replied, "Please, we'd be glad to see it!"

"Okay then, right this way."

Lu Zhou took the group of people to the rocket engine test bench, which was located at the corner of the assembly center.

In the center of the test rig, there was a cone that was a couple of meters tall, which was securely attached on a steel alloy stand. The cone was densely packed with hundreds of fist-sized propulsion units. Right in front of the cone's opening was a concrete wall.

Lu Zhou noticed that Academician Wu was very interested in the concrete wall, so he said, "The temperature of the Hall-effect thruster jet stream is very high, so we have to put it in front of a concrete wall to avoid accidents." He looked at the staff member who was adjusting the equipment and nodded. He said, "There's going to be an experiment on the thrust and jet plume stability; I think you'll be very interested."

Half an hour quickly passed by.

The experiment officially began.

Maintenance personnel located near the thruster began to evacuate. The staff members finished the final adjustments and pulled down the lever. Huge amounts of electricity began to flow inside the engine ionization chamber. The temperature on the screen began to rise, and the air around the engine

condensed into a clear blue cone as an orange thruster shell was pushed outward.

The plasma was continuously being ejected out of the thruster. The thrust value on the screen gradually began to rise. After it reached 198.68 kN, it began to fluctuate up and down over a range of 10 kN.

“The plasma output is stable!”

“The ionization chamber temperature is normal!”

“ ... ”

After Academician Wu listened to the staff member, he glanced at the plume speed on the screen.

“What material does your engine use? How is it able to withstand such high temperatures?”

“It’s not the material that is resistant against high temperatures, it’s the magnetic field... But that concrete wall isn’t so lucky.”

The concrete wall behind the thruster had melted, creating a one-meter wide concave dent in the wall.

Even though the total amount of working medium ejected wasn’t large, the concrete wall wasn’t able to bear the temperature.

The experiment went on for about an hour.

In addition to the maximum thrust, Lu Zhou instructed the staff to conduct experiments on the orbital change speed at 15% of maximum power and the outer space cruise speed at 3% of maximum power.

After the entire set of experiments were completed, the power consumption alone was close to 100,000 kWh.

Minister Qin was standing on the reinforced steel platform, looking over the engine. He was totally astonished.

After a while, he looked at Lu Zhou and took a deep breath.

“This ion thruster system... How long before it’s complete?”

Lu Zhou said, "This ion thruster propulsion system is already complete, but it's still sitting on the rocket engine test bench. Before we complete space shuttle test flights, I can't guarantee that its operation in the sky is reliable."

Minister Qin looked at Lu Zhou and said seriously, "If you encounter any difficulties in your research, please tell us, we'll try our best to help!"

Lu Zhou smiled and said, "I actually do have some things I need help with. I need two aviators."

Minister Qin paused for a second before asking, "Are two enough?"

Lu Zhou: "Yeah."

Minister Qin didn't expect this request. He said, "I heard you were having a funding problem."

Lu Zhou said, "Oh, funding problem? We've already solved that."

"Oh, you solved your funding problem. Good, good..." Minister Qin nodded. He was relieved.

He knew that the Ministry of Industry and Information Technology wanted the Air Force Equipment Department to pay for the research and development of the ion thruster propulsion system.

If it weren't for the fact that the ion thruster system was so strong on paper and because Lu Zhou was Nobel Prize and Ling Yun winner, he would not have brought so many experts here. Nor would he had given so much support to this project.

But now that the funding problem was solved, they could just spend money on buying the final product.

As for buying the two aviators...

Given that this technology was going to change the entire future of air combat, two aviators were a piece of cake.

Minister Qin looked at Lu Zhou and solemnly said, "I'll arrange the aviators. As for the Hall-effect thruster research... I'll leave that to you, thanks!"

Lu Zhou gently smiled.

“Rest assured, I’m confident about my research.”

Lu Zhou was quite relaxed.

There are bound to be people who would like a technical route.

Unfortunately, the China Aerospace Science and Technology Corporation experts aren’t here...

Lu Zhou was looking forward to seeing the haters’ faces when they see his plane in the sky.

Minister Qin suddenly remembered something, and he said, “Oh yeah... Does the space shuttle have a name?”

Name?

Lu Zhou hadn’t thought of this before. It only had a code name at the moment.

But...

I guess I can name it.

The perfect name came to mind.

He looked down at the huge silver engine under the steel platform and said, “The Hall-effect thruster jet plume can reach hundreds of millions of degrees when it’s in the air, and it’ll leave a red and blue glow in the clouds.”

Lu Zhou paused for a second and smile.

“It’s nearly Chinese New Year soon, so let’s call it Skyglow!”

Chapter 695: Astronaut Team

Above the blue sky.

Two fighter jets soared through the sky, gliding back and forth between the clouds, leaving behind the roar of their engines.

Nie Yun was closely behind the other aircraft, and the missile targeting mechanism was locked on the fighter jet in front of him. He took a deep breath and pressed the launch button on his joystick.

Right after, he heard a command from his headset.

“Target destroyed.

“Prepare for the next exercise.”

I won!

Nie Yun sighed in relief and loosened his helmet. He then replied calmly, “Roger that.”

They couldn’t fire live ammunition in training exercises obviously. Instead, optoelectronic transmitting and receiving devices were installed on the fighter jets. The light beam emitted acted as substitute missiles. If the target was hit, the optoelectronic receiving device on the target would receive the signal and notify the ground command post. The aircraft that was “hit” would then exit the exercise.

Of course, this type of fighting simulation exercise was only one section of the entire training course. They had to complete the training course before they could touch down at the airbase.

After the ground command post announced that the losing jet had been shot down, the two fighter jets changed their formation and started to fly to their next designated airspace, in preparation for their next exercise.

Just when Nie Yun was mentally preparing himself for the next exercise, he heard a command in his ears.

“Exercise terminated, return immediately.”

Exercise terminated?

Nie Yun paused for a second.

Even though he was surprised, he still replied calmly, “Roger that, exercise terminated, returning now.”

Nie Yun gave one last look to the blue sky and gave a thumbs-up to his friend in the other fighter jet. He used the joystick to control the J-20 and flew back to the airbase.

...

The silver-gray fighter jet steadily touched the runway. After a short taxi, the parachute was ejected and the fighter jet came to a stop.

The ground crew came forward and the cockpit hood was opened.

After Nie Yun handed the ground crew his helmet, he followed the flight test captain's footsteps and walked toward the senior officer. He then performed a military salute.

The serious-faced senior officer saluted as well before turning his attention to Minister Qin.

"This is Nie Yun, the one I told you about, J-20 test pilot, and the best of our flight team."

Minister Qin looked away from the J-20 jet and looked at the test pilot. He slowly nodded.

"Nice to meet you, Nie Yun, I'm sure training was exhausting."

Nie Yun said, "Not at all, this type of training is very common for our flight team."

Minister Qin looked at the energetic man standing in front of him and nodded.

After a while, he put on a more serious face and said, "Our Air Force Equipment Department has a critical mission that requires two outstanding pilots. Commander Sun recommended you to me. Now all you have to do is tell me if you want to go or not."

Air Force Equipment Department mission?

Testing some kind of new weapon?

Nie Yun suddenly became intrigued.

"I'll go wherever my country needs me to go."

Minister Qin smiled and said, "Are you sure? You're not even going to ask what it is about?"

Even if I asked, you wouldn't tell me...

Nie Yun answered decisively.

"I am certain!"

Minister Qin nodded.

"Okay then."

"From now on, you'll be moved from the test flight team to the astronaut team."

Astronaut...

Astronaut team?!

Nie Yun was dumbfounded.

...

He definitely was a little disappointed.

Nie Yun never thought that the Air Force Equipment Department would assign him to the astronaut team. The so-called mission turned out to only be a test of a space shuttle made by a private company that cooperated with the national defense team, the so-called Skyglow.

Even though the astronaut team wasn't shabby at all, they were all elites, but whenever he remembered that he could no longer fly the J-20 through the blue sky, he couldn't help but feel a little lost.

However, the duty of a soldier was to follow orders, so even though he was lost, he had nothing to complain about.

He threw his thoughts aside and looked at the young man standing in front of him.

Is this the legendary Professor Lu?

He's just... a bit more handsome than I had imagined. He doesn't seem special.

While the two pilots were secretly looking at Lu Zhou, Lu Zhou, who was holding a document, watched the pilots carefully as well.

Of course, he wasn't concerned about their appearances. He was concerned about whether or not they had the qualities to become qualified astronauts.

[Nie Yun, male, age 32, jet model J-10, J-20...]

[Nie Yan, female, age 29, jet model Xi'an Y-20, Shaanxi Y-8...]

Lu Zhou looked up from his document and asked a question.

"You guys are siblings?"

The two said in unison, "Yes."

Lu Zhou was curious, and he asked, "Why were you guys selected?"

The female with short hair said, "The chief asked me if I wanted to fly higher in the sky, I said yes, so he told me to come here."

There was nothing wrong with this answer, but Lu Zhou laughed a little.

He coughed and looked at Nie Yun.

"What about you?"

Nie Yun said, "Orders from the higher-ups."

Lu Zhou could tell something was different with this guy.

He looked at the file in his hand and turned to the next page while speaking.

"Even though Skyglow is neither a fighter jet nor a bomber jet, I promise that flying it will be more interesting than either of them... It'll also be more meaningful. I promise that many people will be envious of you two, and your teammates will be proud of you. Therefore, it doesn't matter what you guys think, just follow my orders."

Honestly, if it weren't because of the State Administration for National Defense calling him in the middle of the night asking if he was crazy, Lu Zhou would have become the test astronaut himself. His physical fitness was just as good as normal pilots.

However, this didn't matter too much.

He could always fly after the technology was fully and safely developed. He didn't have to be the first to fly.

Lu Zhou finished reading through the material and cleared his throat. He looked at the two and asked, "How much do you know about space shuttles?"

Nie Yun: "It's an aircraft that can travel to and from outer space and atmosphere."

Nie Yan's reaction was slower, and she said, "I agree with my brother."

Lu Zhou smiled and nodded. "Correct, but there are a lot more than that. Before boarding the space shuttle, I hope you guys can have a comprehensive understanding of the characteristics of a space shuttle.

"In the next three months, there will be dedicated people teaching you guys what exactly the space shuttle is, how to operate it, and most importantly... how to save yourself in the event of an accident.

"This mission is very crucial, and we only have three months, so I hope you guys can do your best."

The two aviators stood up straight and answered in unison.

"Yes, sir!"

Chapter 696: Nobel Prize Season

Even though Lu Zhou could feel that the two new pilots were somewhat reluctant to accept their new identities, fortunately, they didn't bring their emotions into their work. They completed each task meticulously.

What satisfied Lu Zhou the most was that these elite pilots achieved excellent results in all of their tasks, whether it was underwater weightless training or high-G centrifuge training.

They obviously nailed other tasks such as skydiving and outdoor survival training.

Since they were formal aviators, they had already completed those training missions before.

In fact, compared with the chemical high-thrust manned rockets, the Skyglow didn't have particularly tough physical fitness requirements. Its acceleration in the atmosphere was only 2 g. After entering low-Earth orbit, the Hall-effect thruster would switch to outer space mode and fly with a lower engine thrust. Therefore, even ordinary people could handle flying in this spacecraft.

However, they still had to prepare accordingly.

The days quickly flew by, and it was soon December.

Another year of the Nobel Prize dinner was held in the Stockholm Blue Hall.

Even though Lu Zhou, like previous Nobel Prize laureates, received an invitation from the Swedish royal family, and the Ministry of Foreign Affairs also asked if he was interested in attending diplomatic occasions, after some careful consideration, Lu Zhou politely declined the invitation.

First of all, he was too busy with his research. Secondly, it was pretty boring to sit on the sidelines. Rather than watching other people receive awards, he much preferred to receive the awards himself. Even though the food in the Blue Hall was quite memorable, it wasn't good enough to make him want to go back.

Also, this year's winners of the Physics award were David O'Sharon and Arthur C. Gossard, and the reason for their award was because of their research in the field of semiconductor spin electronics.

The former had a Ph.D. in physics from Cornell University and was a professor of electrical and computer engineering at the University of California, Santa Barbara. The latter was a big name in the field of materials science and computer engineering, who was also teaching at the University of California, Santa Barbara.

In this day and age, it was very rare to find scholars who were proficient in two fields at the same time. It was even rarer for those scholars to achieve outstanding results in two different fields. Because of this difficulty, their research results were regarded as prominent.

In particular, the discovery of the quantum-restricted Stark effect and the fractional quantification of the Hall effect was a huge physical breakthrough. It also had profound impacts on the computer chip industry.

In fact, many years ago, many people predicted that these two would win the prize.

Now, this award had finally fallen into the hands of these two.

It was worth mentioning that people had been predicting whether or not Lu Zhou would win this year's Nobel Prize in Physics, and people even began to place bets online.

Just like Lu Zhou had predicted, even though the controllable fusion project was excellent, the Nobel Prize Committee did not consider giving awards to group research projects.

However, Lu Zhou thought that this was only one of the many reasons. The main reason was probably that he had just won a Nobel Prize in Chemistry not long ago. Otherwise, the theoretical model of plasma turbulence in the application of controllable fusion engineering would be more than enough to win him the award.

Not to mention there was also the He3 atom probe technology.

As a generous person, he would have gladly shared the millions of krona prize money with Professor Lazerson.

The same day when Lu Zhou decided to reject the Nobel Prize dinner invitation, he heard news from East Asia Energy.

After a year of construction, the Xihe fusion reactor in Daya Bay was finally completed. The final commissioning would be completed before the end of the year. On New Year's Day, it would begin to deliver clean and cheap electricity to the Guangdong, Shenzhen, and Xiangjiang area.

So far, the installed capacity of the power station had reached 11,000 MW, which had exceeded the total installed capacity of the original Daya Bay Fission Nuclear Power Station. The new reactor would continue to expand its electricity generator, eventually matching the Pangu 100,000 MW capacity.

In the month of December, the Southeast Asian cross-regional power grid project had entered its final phase. The Jinwu and Houyi reactors, which were located in the north and central regions, had also completed their first project phase and could be put in use as soon as next fall.

By then, controllable fusion would supply power to East China, South China, North China, and Central China. The high pollution thermal stations would gradually be phased out.

Apparently, because of the Houyi reactor, some people proposed to dismantle the Three Gorges Dam. This matter was heavily debated in the academic world and was still unresolved.

On the other hand, after the Xihe reactor began its construction, the other ITER member states had begun to negotiate.

One year ago, they were confident that they could replicate the success of Pangu reactor in five to six years. Now, regardless of whether they were still confident in their scholars and ITER itself, the gap between them and China would slowly increase. China would go through an energy revolution. The other countries couldn't stand waiting anymore.

Lu Zhou wasn't very certain about the specific negotiation progress and what the Americans and Europeans had offered in exchange. However, due to the fact that the Sweden Ministry of Foreign Affairs invited him to Stockholm, the negotiations should be going smoothly.

After all, if the negotiations weren't going well, the Chinese government wouldn't risk letting him set foot on foreign soil.

Lu Zhou was standing at the training room entrance. He thought about all of the interesting experiences he missed out on and couldn't help but sigh.

He looked at the two people laying on the vibration training machine with their teeth trembling, and he muttered, "I'm so jealous..."

Wang Peng, who was standing beside him, paused for a second.

“Jealous?”

Wang Peng looked at the two pilots on the vibration training machine, then looked strangely at Lu Zhou.

What is there to be jealous about?

“Yeah,” Lu Zhou nodded and said, “don’t you want to fly?”

Wang Peng: “Fly... You mean in space?”

“Yeah.”

Wang Peng shook his head and said, “I’ve never thought about flying so high before.”

Lu Zhou sighed and said, “What was your maximum skydiving height?”

Wang Peng: “The highest was probably... six thousand meters.”

Generally speaking, airborne parachuting was completed at heights of less than one thousand meters. At this height, the temperature and air pressure outside the aircraft were at normal levels, and the parachutists wouldn’t have to risk the lack of oxygen or freezing conditions.

Skydiving above five thousand meters was extremely dangerous, even for special forces. It was only used as an absolute last resort, like when an aircraft was in a critical area and couldn’t descend. Otherwise, no one in their right mind would skydive at those heights.

“Six thousand meters?” Lu Zhou smiled and said, “Once you return to the army in a few years, thousand-kilometer skydives will be the norm.”

1A thousand kilometers?

Wang Peng chuckled.

I never thought the rigorous Professor Lu would make mistakes with his units.

A person jumping from a thousand kilometers would become popsicles.

Chapter 697: Begin Preparations!

Time quickly flew by.

As the end of the year was getting closer, the aviators and engineers were like tightened clockwork gears as they put all of their efforts into their jobs.

As for Lu Zhou, since the project was getting closer and closer to an end, all of the work had already been arranged and delegated. He, as the leader of the project, had actually had less work to do.

Hou Guang had previously participated in the 863 Program, and he was responsible for the design of the space shuttle. Xiao Ai, on the other hand, could precisely use the five-axis CNC machine tool to process the required parts and use various automated machines such as logistics vehicles and robot arms for assembly. The Skyglow space shuttle was moving from blueprint to reality.

As long as Lu Zhou could ensure the funding was coming in, this aircraft would be a done deal.

Of course, this was no easy feat.

Even though Xiao Ai's industrial performance with a full set of processing equipment was sufficient, there were still many things that Lu Zhou couldn't manufacture. For example, the flight control system was purchased from China Aerospace Science and Industry Corporation. Also, while the surface coating material was designed by the Institute of Computational Materials, the production was outsourced to a professional chemical materials company.

Then there were a series of cutting-edge materials such as high-temperature surface insulation tiles, reinforced CC composite materials, and even the special steel used in the main structure of the aircraft. These were all uncommon materials. They had to ensure that these materials stayed relatively light while maintaining tensile strength, fracture toughness, corrosion resistance, and high-temperature resistance.

Because of its excellent performance capabilities, it also had a complicated and cumbersome processing technology.

It was no exaggeration to say that the per square meter material cost was higher than Jin Ling City's downtown per square meter housing cost.

1These materials weren't produced by Star Sky Technology itself, but rather, they were produced by an upstream supplier in the industrial chain. A large part of the space shuttle cost came from this area, with orders in the tens and hundreds of millions of yuan range. The entire Skyglow space shuttle was built with cash.

It was no exaggeration at all to say that aerospace was a money-burning industry.

However, compared to the Americans, Lu Zhou was still quite comfortable.

Before the Columbia was retired, the United States government spent hundreds of billions of dollars on the space shuttle. Each launch cost was as high as US\$500 million, and there were all kinds of problems.

On the other hand, Lu Zhou referenced and improved the design from the 863 Program, eliminating the need for large amounts of money that would have been thrown in research and development. The Hall-effect thruster design came from the scanner gun, so he reverse-engineered the technology without spending a dime.

Otherwise, he wouldn't have been able to build a space shuttle even if he invested and liquidated all of his assets.

Nie Yun was standing in the space shuttle assembly center. As he looked up at the ginormous space shuttle and its five sturdy ion thruster engines, he couldn't help but exclaim, "Unbelievable."

Lu Zhou was standing next to him. He smiled and asked, "What's unbelievable?"

Nie Yun: "It's unbelievable that you built this thing in two months."

Nie Yan didn't say anything, but her expression was similar to her brother's.

Compared to Nie Yun, who flew fighter jets, she flew large military transport aircraft such as the Xi'an Y-20. Therefore, she was more excited at being able to fly in this gigantic spacecraft. She was disappointed at the beginning, but she was now looking forward to boarding the flight.

Lu Zhou could tell that the siblings were shocked. "It is not just two months. The production preparation work started half a year ago. The energy supply components were prepared a year ago."

Nie Yun said, "But I still think this is amazing..."

"Yeah?" Lu Zhou looked at the space shuttle and thought seriously for a moment. He then said, "I think compared to the Yang-Mills equations, this is a lot simpler."

Nie Yun: "..."

Nie Yan: "..."

Lu Zhou was probably the only person on Earth that could make a comparison like this.

...

Actually, Lu Zhou wasn't bragging when he made this comparison; this was his true opinion.

After completing the Yang-Mills equations and establishing the electrostrong interaction theory, he easily calculated the theoretical model of the sound fusion machine. The Hall-effect thruster was obtained through the scanner gun, and the design and manufacture of the space shuttle were mostly done by other professionals. When he thought about it carefully, he didn't actually have to do that much work.

Chief Engineer Hou Guang was leading a number of technicians. They were conducting a comprehensive inspection of the various space shuttle components. In order to eliminate the chances of an accident, he divided the maintenance staff into two teams and began to inspect the space shuttle from two different starting positions. They were extra careful with this process.

"Are you done with the inspection?"

Technician: “Yes, sir!”

Hou Guang: “What about the ionization chamber and working medium interface compartment? And the hydraulic pump and thermal cycle device, have those been checked?”

The technician nodded and said, “They’ve all been inspected! Everything is normal!”

Hou Guang: “Are you sure?”

Technician: “Certain!”

Hou Guang nodded and said, “Then double-check it!”

“Okay!”

Even though repeated inspections was a torturous process, the technicians didn’t complain about Hou Guang’s orders.

The space shuttle was a large and sophisticated piece of equipment. They had to ensure that each of the 100,000 or so components were working properly. Only then, could the astronauts be safely sent and brought back from outer space.

Any tiny mistake, even if one screw wasn’t tightened properly, could have serious consequences.

Therefore, just like China’s great aerospace experts said, every successful launch was one small mistake away from failure, and every failed launch was one small correction from success.

The maintenance work lasted for three whole days.

Finally, on the day before New Year’s day, all of the inspections were completed. Hou Guang brought the maintenance report to Lu Zhou.

Lu Zhou glanced at the report and asked, “Is everything ready?”

“It’s ready!” Hou Guang looked at Lu Zhou and said with excitement, “Now we just need to find a way to transport it to the launch base, which is more than ten kilometers away, then do one more inspection. After that, we can schedule the launch!”

Transporting this big guy for more than ten kilometers was no easy piece of cake.

Especially since they had to keep everything confidential.

However, even though this might be difficult for others, it wasn't difficult for Lu Zhou.

Lu Zhou said with a smile, "No problem."

He took out his phone and walked to the side. He then dialed a familiar number.

"Regiment Commander Dai, there's a favor I need from you."

Chapter 698: Are We Overthinking?

The United States.

California.

Space-X headquarters building, press conference site.

Elon Musk was wearing a classical silicon valley outfit, jeans and a t-shirt. He was facing the audience at the press conference and various reporter cameras. He spoke in his unique, stuttering voice regarding Space-X's future.

A futuristic bright silver bullet-shaped spaceship was being displayed on the screen behind him, and the spaceship left off a trail of light, with the blue earth and boundless space as the background.

The words BFR and Space-X were printed on the side of the spacecraft.

The theme of this press conference was the BFR.

"The first section has the main thrust rocket, which will be powered by 31 Raptor methane rocket engines, the second section has 2 sea-level engines and 4 vacuum engines. The fuel tank can store a total of 240 tons of methane,

and the maximum thrust is in the magnitude of kilotons... Of course, this is not my main point. Our focus is on a series of plans surrounding the BFR rocket.”

Musk paused for a moment. He then looked at the audience and camera.

“We will launch two manned spacecraft to Mars by 2024!”

There was a commotion in the audience as the reporters frantically pressed their camera shutters.

Aerospace wasn’t anything new for Americans.

However, the exploration of Mars and the colonization of outer space was still fascinating.

Otherwise, Star Wars wouldn’t be such a cultural icon in the United States.

Musk smirked and raised his volume.

“Once the BFR research and development is complete, it will replace all of our current launch devices. It will allow spacecraft to perform various space missions. Whether it’s the Moon or Mars, we can achieve all kinds of things with this power.”

“It will redefine our understanding of aerospace.”

“It will change our future!”

Later on, Musk continued to talk about the advantages of the BFR spacecraft as well as Space-X’s plans for Mars.

In the midst of the applause, the press conference came to an end.

The reporters rushed up to the stage, surrounding Musk.

Musk finally finished all of the interviews.

After getting rid of the reporters, he went back to his office and sat in his office chair. He couldn’t wait to take out his phone.

Musk looked at the rise of his stock price on his phone and relaxed a little.

The feedback from his stock price told him that the press conference went well.

The concept of the BFR gave the aerospace investors hope.

Of course, now was not the time to celebrate.

The stock market was a volatile animal, especially for high-tech companies like Space-X.

Whether or not the wealthy investors would still be willing to support Musk's vision, didn't depend on the type of profit returns Musk could give them, but was rather dependent on Musk fulfilling his promises.

Fortunately, due to controllable fusion and lithium-sulfur batteries, the overall performance of the alternative energy industry was good. Tesla's stock price was rising, and compared to a few years ago, the investors' confidence in him had greatly increased. However, aerospace was a brand new field; even he himself wasn't 100% certain that everything would go smoothly.

He heard a knock on the door, and a female secretary wearing professional attire walked in.

"Sir, there's someone asking for you."

Musk was about to take a break.

His eyebrows furrowed as he asked, "Who?"

The secretary said, "They claim to be from the CIA..."

"CIA?" Musk hesitated for a bit and played with the pen in his hand. He said, "I don't remember..."

The office door was aggressively pushed open, and two men wearing black jackets walked in.

Musk looked dissatisfied as he looked at the two rude men who walked in without permission.

"I don't recall allowing you guys to come in, do you have a warrant?"

“My apologies, Mr. Musk, but the situation is urgent, I hope you can forgive us.” the African American agent showed his credentials and said, “You can call me Aiden.”

Musk looked at the African American agent and leaned back in his chair.

“I’m Elon... You guys know who I am anyway, do you want some coffee?”

The agent standing behind Aiden said, “No need, we’re in a hurry.”

“Okay then.” Musk looked at the female secretary standing next to his desk and said, “Alyssa, bring me a latte.”

“Okay, sir.” The secretary nodded and walked out of the door.

Aiden: “...”

Agent: “...”

After five minutes, the coffee was finally served.

Aiden didn’t want to waste any time, so he went straight to the main topic.

“We heard that around two months ago, Star Sky Technology purchased a US\$20 million order from you guys, is that correct?”

Musk thought for a while and nodded.

“Yeah... But I remember those orders aren’t regarding banned items, is there a problem?”

Aiden said, “The problem isn’t with those parts, but what those parts are being used for.”

Musk wasn’t frightened by his tone. He said impatiently, “We are not concerned with what our customers do with our products. If there are any problems, I suggest you consult customs.”

Aiden didn’t say anything. He took out a blurry photo and placed it on the table.

When Musk saw the space shuttle in the photo, he immediately sat up from his chair and asked, “What is this?”

“Your customer, or your future competitor. It’s called Skyglow.” Aiden shrugged and said, “Apparently, they’re using a cutting-edge ion thruster electric propulsion system. We’re still investigating this matter.”

“Wait a second, electric propulsion?” Musk opened his mouth and looked at the man standing in front of his desk. “Ion thrusters? Are you sure?”

“We’re certain.” Aiden nodded and said, “Our sources are reliable, but it’s not detailed.”

Musk smiled and shook his head. He then sat back down.

Suddenly, Musk’s look of interest became a look of mockery.

“Aiden and Mr. Agent, even though I’m not sure what the CIA investigation process is, as a taxpayer, I hope you guys can be a little bit more professional... Ion thrusters? Using electric propulsion to send space shuttles to the sky?” Musk shook his head and smiled. He then said, “This is ridiculous.”

Aiden said, “Is ion thruster propulsion unrealistic?”

“It’s impossible,” Musk answered without hesitation. “Even with our most advanced ion thruster propulsion technology, the thrust is merely on the order of Newtons. Sending a spacecraft to outer space orbit requires at least the order of kilo Newtons!”

Aiden looked at the agent next to him.

The other agent said, “NASA also said this... Are we overthinking this?”

Aiden was lost in his thoughts, and he didn’t say anything.

He hoped that he was overthinking this whole thing.

But whenever he thought of the name Lu Zhou, he couldn’t help but feel nervous...

Chapter 699: Responsible for the Countdown

China Aerospace Science and Technology Corporation.

Chief engineer's office.

When he heard that Star Sky Technology planned to conduct a test flight on New Year's day, Secretary Yu immediately rushed over in order to bring this news here. Yuan Huanmin was reading a thesis, and after hearing about the situation, he froze for a few seconds.

Once he realized what was going on, he had a look of disbelief on his face.

"Test flight?"

"Yeah! Who knew they were moving so fast!" Secretary Yu was worried. He sighed and said, "Ah, we were one step behind, what do we do now?!"

Actually, unlike the Ministry of Industry and Information Technology, the China Aerospace Science and Technology Corporation never took this bet seriously.

Ion thruster propulsion...

Everyone knew that it would be impossible to overcome gravity with that small amount of thrust. Otherwise, the China Aerospace Science and Technology Corporation leaders wouldn't have agreed on this bet so easily. They would rather let Professor Lu self-destruct.

Now...

Who would have thought that they were starting their flight tests?

When Yuan Huanmin saw how anxious Secretary Yu was, he was astonished.

However, his worries were different from Secretary Yu's worries...

After staying silent for a while, he spoke in a suspicious tone.

"They're sending people on their first test flight?"

Secretary Yu paused for a second and said, "There are two pilots in the launch plan..."

"This is outrageous!"

Yuan Huanmin slapped the table with his right hand, causing the teacups that were on it to shake. He stood up angrily from his chair and grabbed his coat from the back of the chair. He then started to walk out of the office.

Secretary Yu quickly caught up to him.

“Chief Engineer Yuan, where are you going?”

Yuan Huanmin said without hesitating, “Do you really need to ask? I’m going to Jinling’s launch site!”

Secretary Yu said, “But Jinling didn’t invite us, wouldn’t it be embarrassing for us to show up like this...”

“Is this the time to feel embarrassed?!” Yuan Huanmin’s eyes were wide open as he said, “Which one’s more important, human lives or pride?!”

Two astronauts!

Not to mention they’re the elites of the test flight team!

Yuan Huanmin was furious, he shook his head.

As expected, Lu Zhou is too immature.

His ego is through the roof.

Using novel technology is whatever, but now he’s putting the precious lives of the two astronauts at risk!

Yuan Huanmin’s opinion was that Lu Zhou was blindly abusing the country’s trust in him!

Yuan Huanmin was fine with Lu Zhou spending money on the project, but now that lives were at risk, he had to do something.

I have to stop him!

Yuan Huanmin called his assistants and asked him to book him a train ticket from Beijing to Jinling. He then went downstairs to the parking lot.

Secretary Yu was walking right behind Mr. Yuan. He wanted to persuade him not to go, but in the end, he decided against it.

Maybe it's a good thing for him to prevent this test launch?

Regardless of whether Mr. Yuan can stop the launch, it's worth a try...

...

Outside the Jinling aerospace launch site.

A heavy rocket transport vehicle was being escorted by several military vehicles, and it slowly entered the launch site.

Yesterday, the Jin Ling city council blocked this section of the highway and used police forces to temporarily block all sections of the road leading to the launch site. This was for the protection of the citizens and also to keep this launch confidential.

However, it was obvious that many foreign countries had their eyes on this launch.

But that didn't matter.

Nothing could be kept secret forever. Moreover, it was actually quite amazing they were able to keep this confidential until now.

Regiment Commander Dai got off a military green jeep and walked in front of Lu Zhou. He then firmly shook Lu Zhou's hand.

"Professor Lu, we meet again."

"Good to see you, Regiment Commander Dai," Lu Zhou said while shaking his hand.

These two had known each other since the controllable fusion project. They had always had a good relationship. This test launch was very important to the higher-ups; therefore, the China Eastern Military Division was responsible for security, which meant that Regiment Commander Dai was in charge.

After some small talk, Regiment Commander Dai said, "Let's catch up after the launch is over, I won't bother you anymore. This area is guarded by our soldiers. You just have to focus on the experiment!"

"Okay," Lu Zhou nodded and said, "thank you guys so much."

“No need to thank us, this is our duty.”

Regiment Commander Dai waved his hand and walked back to his jeep.

The moment he picked up his walkie-talkie, he spoke in a dignified manner.

“Squadron 1, Squadron 2, begin patrol of the launch site!

“I don’t want to see a single fly within a 500-meter radius!”

...

After saying goodbye to Regiment Commander Dai, Lu Zhou found the two test pilots. They were preparing to board the flight. Their instructor was giving them some last-minute advice.

When the instructor saw Professor Lu coming, he stopped talking and gave Lu Zhou the opportunity to speak.

Lu Zhou walked next to the two test pilots and reached out his fist. He then gave Nie Yun a fist bump.

“You got this!”

Nie Yun took a deep breath.

He didn’t talk a lot. He smirked and replied, “Ok!”

Lu Zhou walked in front of Nie Yan and reached out his fist. He suddenly remembered that Nie Yan was a girl, so he awkwardly touched her shoulder instead.

Nie Yan noticed Lu Zhou’s movements, so she smiled and began to flirt.

“Actually I don’t mind fist-bumping.”

“Are all the women in the army so masculine?”

“Not quite, there are many types of girls in the army. What type do you like? I can introduce some to you.”

“I’m good...”

Does everyone know I'm single?

Lu Zhou put on a more serious face and looked at her solemnly as he said, "Do your best."

Nie Yan did a military salute. Her expression was fearless and strong, and she looked exactly like her brother.

"I will!"

Lu Zhou nodded and started to walk toward the space shuttle. He suddenly turned around and looked at the two pilots again.

"This is going to start a new age of aerospace, and you guys will be the first people to take that step.

"I won't waste your time.

"But just know that history will remember this day, they will remember you guys, and everyone else standing here."

Lu Zhou paused for a second and looked at the silver spaceship.

"See you guys later."

All of the engineers and technicians at the scene were touched.

No one noticed that Lu Zhou, who was looking at the space shuttle, had a beaming smile on his face.

After a while, Lu Zhou yelled out a name.

"Hou Guang."

"Yes, sir!"

"You'll be responsible for the countdown!"

Hou Guang excitedly nodded his head.

"Yes, sir!"

Chapter 700: Ignition! Take off!

“5

“4

“3

“2

“1

“Ignite!”

The circulating liquid lithium began to tumble in the reactor.

A series of dense bubbles were injected, and the energy of a star was ignited in the invisible atomic nuclei. The moment the solid-state xenon in the working medium compartment was injected into the ionization chamber, the high-temperature plasma began to emit light and heat. While constrained by the magnetic field, the plasma was sent to the engine exhaust nozzle...

A light blue arc could be seen from the bottom of the space shuttle, pushing the giant space shuttle forward...

The speed gradually became faster and faster, and the tires left the runway as the landing gear retracted into the space shuttle.

That blue arc of light represented humans' vision of space. The silver bullet disappeared into the clouds, heading toward space...

The technicians standing near the runway were watching the whole thing unfold as they cheered and threw their hats into the sky, celebrating with excitement.

At the same time, in the ground command center less than 500 meters away from the runway, sounds of cheering were heard.

As Hou Guang listened to the deafening cheers, he took a deep breath and took off his headset. He wiped the tears from his eye.

It had been so many years.

His dream finally became a reality.

At last, he didn't disappoint his teachers...

Those designs that were considered useless at the time, was finally reborn.

Outside the launch site.

The soldiers guarding the launch site also saw the blue arc of light disappearing in the clouds.

Even though their jobs didn't allow them to show excitement, everyone's face was full of pride and joy.

Regiment Commander Dai looked into the direction the blue light disappeared to, and his expression didn't change much. He silently raised his right hand and did a military salute.

God bless this country.

May you return safely!

...

Meanwhile, outside the launch site.

An SUV came to a stop.

Yuan Huanmin, who was authorized to enter the site, quickly walked toward the main entrance of the launch center. Secretary Yu followed him closely.

The security staff at the entrance noticed the two men approaching, and he immediately stopped them.

"Stop right there, this is a restricted area!"

Secretary Yu immediately presented their authorization documents.

“This is our authorization documents from the Ministry of Industry and Information Technology, get out of the way.”

The security guard took a close look at the documents, then returned the documents to Secretary Yu.

“Sorry, this authorization is only a permit to enter the perimeter, you can stay in this area, but you may not enter.”

Yuan Huanmin squinted his eyes and said, “What do you mean?”

The security guard said, “This is a private area.”

Secretary Yu’s eyes widened. “What!”

This was correct.

Even though this was a controlled airspace area, the land was ultimately owned by Star Sky Technology. The documents from the Ministry of Industry and Information Technology allowed them to pass through the restricted area, but if they wanted to enter the private area, they would have to have a court warrant or authorization from a special department...

Suddenly, there was a commotion on the launch site.

A team of army soldiers ran across the launch site, toward the command center.

The security guard was stunned. He obviously didn’t know what was going on. He saw Regiment Commander Dai and Chief Engineer Hou Guang walk out of the launch site.

Yuan Huanmin noticed the commotion, and he immediately asked Regiment Commander Dai.

“What happened? Is there an accident?”

Regiment Commander Dai was about to speak, but Hou Guang shook his head and spoke first.

“Not quite, the launches have been successful, it’s just...”

Secretary Yu gulped and said, “Just what?”

Regiment Commander Dai sighed and said, "Professor Lu has disappeared, and we're not sure why. We're trying to find him. If you guys have any clues, please tell us as soon as possible..."

"Disappeared?" Yuan Huanmin had his mouth open, and he asked, "Where is he?"

"He was just on the launch site a second ago... maybe..."

Hou Guang suddenly had a strange expression on his face.

Regiment Commander Dai noticed his change of expression, and he immediately asked, "Maybe what? Where is he now?"

Hou Guang still had a strange expression on his face.

"I'm not sure, but maybe, and just maybe... He's on the flight."

Yuan Huanmin: "???"

Secretary Yu: "???"

Regiment Commander Dai: "???"

The soldiers on duty: "???"

On the space shuttle?

*F*ck!*

...

Meanwhile, above the clouds.

Nie Yun was sitting in the cockpit. His entire hand was shaking.

He looked at Lu Zhou, who appeared out of nowhere, and asked, "Why are you here?"

Lu Zhou leisurely made himself a cup of coffee. He said while sitting in the crew seat, "It's my plane, why can't I be here?"

Nie Yun: "..."

Nie Yan: "..."

Lu Zhou did seem to make sense, so they didn't know how to respond.

Nie Yan looked at Lu Zhou's coffee and couldn't help but ask, "Is now the best time for coffee?"

"It's the only time for coffee." Lu Zhou stirred his cup with a spoon and said, "Once we fly to the stratosphere, I won't be able to drink anything."

Ion thruster propulsion acceleration was much slower than chemical propulsion. Even under ideal conditions, it would take two hours to reach orbital velocity. Using the wings to provide an upward force in the ozone layer meant a stable flight.

Because of this, he could enjoy his cup of coffee while they were still in the ozone layer.

Also, carrying one extra person wouldn't impact their safety. The Skyglow was designed for a maximum capacity of ten people. They could have seven more people on this flight if they wanted to.

Nie Yun and Nie Yan looked at each other. They gulped and communicated with their eyes.

"Brother, what do we do?"

"I don't know! Should we go back?"

"But the launching cost is probably astronomical, we can't just go back..."

"But think about how much Lu Zhou is worth?"

Nie Yun began to clench his teeth.

This guy...

Has no awareness regarding how important his safety is.

Honestly, the moment Nie Yun stepped on the space shuttle, he was putting his life at risk. He even placed his own testament in his drawer. But now, failure wasn't an answer.

He had to do everything to land this spacecraft safely.

Nie Yan, while sitting in the co-pilot's seat, looked at her brother.

"You're right... I'll talk to ground command."

Lu Zhou saw the siblings communicating with their facial expressions, and he could probably guess what they were planning, so he coughed and said, "I know what you guys are thinking, but I advise you against it.

"If we land now, not only will that destroy thousands of researchers' efforts over the past year, the entire project will also be at risk of bankruptcy."

Lu Zhou paused for a second before adding, "Also... I didn't just come here for fun, I have my reasons.

"No matter what the reasons are, you guys are soldiers, right? So you will listen to orders. The military sent you guys to me, so you have to listen to my orders. Right now, I want you guys to concentrate on completing your own tasks. Don't worry about anything else, don't worry about me. I run for an hour every single morning, and I'm in better physical shape than you think. Just pretend like I don't exist."

Is this about physical health?

What do you mean to pretend like you don't exist?

Nie Yun hesitated for a bit and decided not to land this flight.

Like Lu Zhou said, his mission was to follow orders.

The moment his senior officer sent him here, Lu Zhou became his superior. Even though Lu Zhou was not a soldier, he still had the power to command him.

Therefore, even though there were a million reasons to land this flight, he had to follow orders...