

Mech Touch 6811

Chapter 6811: Processor Quotas

Once Ves and Gloriana made up their minds, they announced the institution of weekly quotas to the Design Department.

"The SF-02 is incredibly powerful." Ves spoke in front of the gathered mech designers. "Each of you has experienced its capabilities. It is making life incredibly convenient for you all, but that is not necessarily a good development. Our civilization has always grappled with the problem of relying too much on automation. The more we off-load work to AIs, the more control we cede over our lives. Lack of practice is detrimental to your development as mech designers. If you keep delegating work to our smart AIs, you will deprive yourself of essential practice and experimentation. The lack of effort will slow down your progress and cause your careers to stall. Are you truly willing to remain stuck as Apprentices or Journeymen?"

Many mech designers shook their heads. The vast majority of them were new and optimistic about their future.

They derived a lot of pride in their ability to work in the legendary Design Department of the Living Mech Corporation!

Even if their design capabilities were nowhere close to that of Ves or Gloriana, many of them still fantasized that they would be able to transform themselves and one day catch up to the founders of the Larkinson Clan!

After a bit more lecturing, Gloriana took over in her capacity as the director of the Design Department and announced the weekly quota rules.

"In order to limit your dependence on the SF-02's powerful capabilities and encourage you to exercise your design skills, we will limit the amount of hours you can make extensive use of its processing power. Once you have used up all of your quota, the smart AIs will become inaccessible to you. The SF-02 will only grant you access to as much processor power as before, which is not much. This should be enough for you to complete your work assignments by relying on a classical design approach."

It was not a good idea to deny access to the SF-02 entirely once a mech designer had used up his quota. He could only rely on consumer electronics or their own cranial

implants to perform their calculations. This was far too inefficient and also highly insecure.

"The weekly quotas are based on your mech designer ranks." Gloriana continued. "The higher your rank, the more agency we are willing to bestow you. We believe that as long as you have managed to climb your way up through hard work and ingenuity, you should already have enough awareness and self-control to seek the best development trajectory for yourself. If you still fail to withstand temptation and use the smart AI as a crutch to save yourself from doing hard work, then you will ultimately bear the consequences of your own decisions."

Everyone looked as if they took her words seriously, but Ves and Gloriana knew that they were only humans. There should definitely be a lot of mech designers who wouldn't be able to resist temptation and use their access to the SF-02 as a way to shirk hard work instead of using it for its intended purpose.

Ves could have added an instruction that caused Momo and Polly to intelligently track how the mech designers made use of their capabilities.

They possessed enough understanding and familiarity by now to judge whether a mech designer was trying to be more efficient or whether he was attempting to slack off during his work shifts.

If the two smart AIs detected any instances of the latter, they could deny any requests to leverage their processing power and tell the mech designers to do the hard work themselves.

However, Ves ultimately rejected this measure. It was way too intrusive and risked going too far. No good would come out of micromanaging his subordinates.

Mech designers were not children and should not be treated as such. They were already adults when they started their careers, and they had to grow up even further in order to earn the qualifications to undertake greater responsibilities.

Ves ultimately agreed with the Rubarthan philosophy of treating this as a test. Those that were able to resist the easy way out and proactively sought to challenge their design skills held greater promise. These mech designers all possessed the potential to rise above their peers and become the next pillar of the Larkinson Clan such as Ketis.

As for those that did not push themselves too much and stagnated as a result, they had their own place in the Design Department. There was always a need for assistant mech designers that took care of a lot of low-level grunt work such as performing tests, recording data and designing variants that catered to different demands.

Ves and Gloriana had given their subordinate mech designers enough hints about their thoughts and intentions.

It was up to the mech designers themselves to act upon that information.

After Gloriana briefly explained the intentions behind the quotas, she announced the specific numbers.

"Novice Mech Designers are granted a quota of 4 hours per standard week. Apprentice Mech Designers are granted a quota of 10 hours per standard week. Journeyman Mech Designers are granted a quota of 16 hours per standard week. As for Senior Mech Designers, they are no longer bound by any quotas. Do note that these quotas are based on the time that the processor cluster is actively following your math-intensive requests. It is not based on power consumption, calculations per seconds or other units of measurement. This means that the actual amount of processing power at your disposal may change on a daily or hourly basis depending on load and allocations."

Ves and Gloriana wanted to keep the quota system simple and straightforward. The SF-02 may undergo drastic changes in the future that would cause its efficiency to undergo a lot of upheaval. It was better to use a unit of measurement that would remain constant regardless of how the processor cluster changed in the next few years.

Predictably, a lot of mech designers groaned and expressed dismay at the figures.

This was an understandable reaction.

The low-ranking mech designers previously went from being able to make use of the SF-02 on an unlimited basis to being restricted to using it for 4 or 10 hours at most!

Even the Journeymen became disappointed at the harsh limitation on their own usage. A quota of just 16 hours was not that much considering that their work often involved design applications of considerably greater scope and complexity.

This limitation massively cut down their productivity!

The consequences were quite severe. Many mech design projects would take weeks or even months longer to complete due to lacking the ability to conduct a lot of simulations.

"I can see that you have objections." Ves spoke up as he crossed his arms. "Your feelings on the matter are irrelevant to us. We have put much thought behind the weekly quotas. We cannot afford to ignore it. Having it speeds up our work by a huge extent. The more work we get done per day, the faster we are able to pump out mech designs, many of which are essential and directly impact the survival of our clansmen. That said, I will not allow the SF-02 to turn you into spoiled children. The processing power it offers is abundant but precious. It cost us a lot to acquire it from the fleeters, and it takes a huge amount of energy just to feed its hunger. The cost of spare parts and materials needed to maintain the SF-02 over its lifespan are also high."

He wanted to remind everyone that the SF-02 was a luxury they could never have access to under normal circumstances. It should never turn into a freely available public resource that clansmen could borrow at will.

"To the Novices and Apprentices among you, the quotas are particularly low for you because you are in your formative periods. These are the stages of your career where you need to accrue experience and master your fundamental knowledge through practice. The quotas you have received are enough to complete a large amount of high-volume calculations of low complexity."

It took skill and thinking to gain the most results out of the least amount of resources. Ves wanted to encourage the mech designers to be frugal and efficient in their usage of the SF-02.

"As long as you construct your requests in a clever and efficient manner, you will waste less processing power, which leaves more room for other mech designers. So long as you intelligently master the data-driven design approach, you will find yourself with a large amount of time that you can use to manually solve more complex design problems. If you have any free time left after that, you are free to study more

knowledge or work on your own personal design projects. However, if you do not adequately master the skills to make efficient use of our smart AIs, then you will end up spending more time on monotonous design tasks."

Gloriana gave the mech designers a warning. "In light of the latest changes, I have rescheduled your work assignments to allow for more time. That said, I have carefully calculated and modeled how much time a typical Novice, Apprentice and Journeyman needs to spend in order to complete the new assignments. I expect that each of you should not have any problems with completing your work within the fairly tight deadlines that I have set. The key to completing your work in time lies in the usage of your weekly quota. You can solve many low-level problems within an hour's time of using Momo or Polly's services. That same hour can also be spent to obtain margin progress in solving a complex, open-ended problem."

"Even if you feel the need to make use of the SF-02 to solve a complex problem, then at least put in the effort to complete as much preparation as you can by yourself." Ves added his own thoughts. "It is much more sensible for you to understand the underlying rules and principles of the problem at hand first. This will allow you to narrow down the range of solutions. The better you grasp the theories and how to apply them, the more effective you can execute this approach. If you only use the smart AIs to solve the last steps that you cannot effectively complete by yourself, then the SF-02 will not be as heavily burdened and should not take too long to spit out the answers you sought."

Both Ves and Gloriana gave the mech designers more advice on how to make the best use of the SF-02 given their limited quotas.

This way, the mech designers should be adequately equipped to pass the implicit test that came with the latest rule changes.

If the subordinate mech designers still failed to meet their work obligations after all of that, then Gloriana would definitely transfer them away from the Design Department.

She had already done so in the past when it came to assistant mech designers who were originally third-raters.

Regardless of whether they had joined the clan in the early days and consistently remained loyal, Gloriana did not want her department to get dragged down by incompetence.

She did not expect for any of the low-ranking mech designers to match her pace of improvement. No mech designer was more perfect than her as far as she was concerned.

What she did expect from her subordinates was for them to be able to remain useful to her as she continued to progress. She saw no value in retaining mech designers who were unable to work with transphasic components or who did not know how to handle the most basic work assignments related to first-class mech design projects.

The Miracle Couple's high pace of development was a constant source of stress to the majority of workers of the Design Department. They did not want to get kicked out of this holy land, but their poor foundations were dragging them down.

If neither augmentations nor systematic cultivation could make them smart and knowledgeable enough to assist in any ongoing advanced mech design project, then they had no place in the Design Department anymore.

Gloriana secretly hoped to sweep these old-timers aside and fill up the vacancies with more competent and well-educated first-class and second-class mech designers.

Chapter 6812: Another Graduating Student

The atmosphere in the design labs had changed after instituting the new rules.

The mech designers no longer looked as relaxed as before. Instead of formulating requests before letting Momo or Polly do the actual work of solving design problems, they had to make careful judgments on whether it was worthwhile to spend their limited quotas.

The low-ranking mech designers looked especially concerned. They had to work harder and figure out how to make good use of their limited hours with the SF-02.

None of them wanted to miss the deadline for their work assignments. Gloriana had long established a reputation for being a harsh taskmistress. No one wanted to be on the receiving end of her rants, much less the other punishments that she had in store.

It was precisely due to her strict regime that the Design Department quickly shaped up. No one was able to relax and take it easy under her watch, but the mech designers did not really reject the changes.

They were mech designers. They were professionals who yearned to formulate their design philosophies and become famed for their innovations. Each of them knew that they would never be able to make any notable accomplishments without putting in the work and effort of improving themselves.

This was why no one rebelled or voiced any objections to the changes. Gloriana was also good at calculating work assignments that exerted enough pressure on the mech designers without becoming overbearing.

The result of all of this was a renewed and more focused Design Department. The mech designers all treated their work a lot more seriously than before.

With the Red Tide Offensive running roughshod over the 5th defensive band, this was how his mech designers should work.

Compared to the poor linefighters that were struggling and dying on the frontlines, these mech designers enjoyed the privilege of contributing to the war effort in a secure base located on a highly secure Terran planet.

Although the decision to limit their usage of the SF-02 most definitely caused all of the mech design projects to take longer to complete, Ves felt it was an acceptable compromise.

The mech designers needed to stay sharp. They needed to struggle in their own way. Only then would they be able to draw out their potential and turn into high-value talents.

Speaking of talents, a certain mech designer had managed to cross the extraordinary threshold and become a Journeyman Mech Designer.

Normally, Ves had no reason to pay attention to such a breakthrough. The Design Department already employed a lot of Journeymen that he recruited from various places. They were no longer as rare as a decade ago. It was enough to let Gloriana take charge.

This time was different, though. The reason why Ves felt the need to address this matter in person was because it pertained to one of his students.

He continued to move through the main design lab. He eventually entered his office with his silent Collie bodyguards shadowing him while making remarkably little noise.

"Zanthar. Congratulations are in order. You did not disappoint my expectations."

"Teacher." The new Journeyman had already entered the office and taken a seat beforehand. "Thank you for your words. I feel... more ready than before. I finally have a design application that I can call my own. It took so much work and experimentation, and I only got a half-finished invention at the end. It shouldn't be enough, but... it's a start."

Ves sat down on his own luxurious puelmer leather seat and sank into its adaptive cushions. He faced his student with an evaluating gaze.

The breakthrough had done the younger trueblood Larkinson a lot of good.

He had shed the weight of doubt and indecision from his shoulders.

Becoming a Journeyman meant that he had become a true mech designer. He had successfully proven his dedication and competence to the art and science of mech design.

He earned the recognition from many mech designers. While there were still many ways for Journeyman Mech Designers to falter, they also had a much higher chance to become a respected Senior or Master Mech Designer.

"Well, now that you have become a Journeyman Mech Designer, you should visit the headquarters of the Red Association as soon as possible. I am not sure if pilgrimages are the same as before. The current war climate makes long-distance travel a lot less convenient. You will need to get briefed by the mechers in person, though. They can explain the things you have a right to know a lot better than me. Are you looking forward to going on a small vacation?"

"Not really, sir." Zanthar shook his head. "There is so much I can do. Now that I have completed one of my major goals, I want to spend more time on studying everything I need to know as a first-class Journeyman Mech Designer. There is so much to learn. I am eager to find ways to improve my initial solution. It is still incomplete and needs much more refinement in order to turn it into a product that I can be proud of. Right now, it is not even close to ready for use."

Ves leaned forward while pressing his fingers together. "You are talking about your EEE Munitions, right?"

"Yes, but not exactly! In my vision, I can invent hundreds if not thousands of different variations of E E energy Explosive Munitions. I am not even close to meeting that goal because I only just invented the first variation, and it isn't even complete."

"Please present to me your work."

"Well, I will not embarrass myself by showing off my mech design. I will only explain the munitions for the kinetic rifle that I have designed."

A projection came to life that showed off a solid round. This projectile was made out of unexceptional exotics, but it was the use of hypers that stood out to Ves.

"This is my FadeBurst Round." The younger Journeyman said with pride. "As you can see, it does not contain any explosive propellants. The entire round is made out of solid and stable metals. That does not mean it is entirely stable. I am sure you have noticed that the proportion of hyper materials is rather high. This is because they are the source of the damage inflicted by this round."

The design did not seem all that complicated on the surface, but Ves knew that there was more depth to this projectile design.

"Low-grade exotics. Low-grade hypers. This is an economical projectile, even for third-raters. The internal design is also extremely simple. The design lacks sophistication, but that makes it disgustingly easy to mass produce. As long as you can supply the easily sourced materials to a light industry production facility, its production lines should easily be able to pump out millions of rounds a day. The cost will be so low that you can easily supply enough rounds for lots of third-class ranged

mechs armed with ballistic weapons. In fact, as long as you modify the rounds to fit the specifications of the Onager Version C's Enriched Gauss Gun System, I can see millions of Yellow Jackets firing these special rounds to their enemies."

As long as the product was stable, reliable and effective enough, Zanthar should be able to mass produce his so-called FadeBurst Rounds and find plenty of buyers in the Lower Zones.

The FadeBurst Rounds would definitely take the third-class mech market by storm if Ves personally endorsed his student's product!

Not that Ves had any intentions of doing so. Zanthar's product should stand on its own feet. If it was truly a good product, then it should find its way into the hands of customers.

This product was incredibly appropriate for the current day and age. The encroaching aliens had disrupted normal commerce across the human-occupied space and made it a lot more difficult to ship materials across star systems.

The low-quality materials that Zanthar used in the design of this FadeBurst Round might not all be present in a single star system, but it should be incredibly easy for cargo vessels to ship the missing materials from adjacent star systems.

The availability of all of the exotics and hypers were high. The cost of purchasing them in bulk should be minimal.

In a few cases, the cost of shipping exceeded the cost of buying the actual resources!

"Have you designed a second-class variant of your FadeBurst Round as well?" Ves asked.

"Yes."

A second projection appeared. It was clearly not the original. Zanthar had merely tried to substitute low-grade materials for mid-grade materials whenever it was possible. He had to make other tweaks in order to account for changes in density and center of mass, but it still remained a variation of the third-class product.

As Ves repeatedly switched his gaze between the two projected schematics, he slowly began to frown.

"You have me at a loss." He admitted. "What... does it actually do? I can tell that this round is centered around the interaction of water, fire and air-attributed hyper materials. This is certainly a volatile combination when put into close proximity, but what added value does your projectile create?"

"Perhaps... it is best to show you, sir."

Zanthar activated another projection that showed the experimental firing yard. This was the place where the mech designers tested their firearms, from handheld pistols to large mech-grade cannons.

At the time of the recording, Zanthar had already installed a standalone third-class ballistic rifle on a robust holder.

The muzzle aimed straight at a mech dummy on the far end.

What made this test special was that the mech dummy was protected by an azure energy shield.

Although it did not offer a lot of protection, it was still an unusual sight among third-class mechs.

Then Zanthar pressed the activation button.

A booming noise echoed throughout the underground firing yard as the weapon discharged a FadeBurst Round.

The projectile struck the azure energy shield almost instantly, but failed to make any further progress.

Just as expected.

Even the weakest azure energy shield was still capable of blocking a single round, especially one fired from a relatively weak ballistic rifle.

The FadeBurst round also was not that special from a material perspective. Its shape was not conducive to penetrating solid matter, and its materials did not possess any special advantages when used against energy or physical defenses.

Yet instead of doing nothing after bursting apart against the azure energy shields, the FadeBurst Round apparently produced a second effect.

A smaller but still distinctively violent bursting noise spread across the firing yard as the mech dummy unexpectedly received a dent!

"What!?"

The dent on the chest plating of the mech dummy was rather shallow and unimpressive, but that still did not change the fact that a cheap third-class ballistic rifle loaded with a cheap low-grade projectile managed to bypass a working azure energy shield!

A lot of thoughts ran through Ves' mind as he studied the arrangement of hyper materials with a much more critical eye.

"This FadeBurst Round of yours... looks like it is never meant to inflict material damage. It frankly sucks when you try to damage anything made out of solid matter. Yet when you use it against a shielded target, an unknown interaction between fire energy, water energy and a small dash of air energy somehow produces a violent reaction that somehow allows this explosive mix to inflict a significant degree of material damage. I... don't know how you managed to pull off the transition from virtual and real, yet still bypass the azure energy shield. It should have blocked this attack regardless of whether it is a physical or spiritual attack."

This did not make any sense. What he just witnessed from this simple test did not conform to his theoretical frameworks!

His eyes lit up. Ves not only recognized the potential of this rather weak and unimpressive product, but also gained a lot of interest in how it managed to violate the rules of reality as he knew it. There had to be a secret that enabled this projectile to bypass energy defenses so well!

Chapter 6813: Clever Use of Properties

Zanthar Larkinson began to explain his invention in simple terms.

"As you know, I have been researching for a way to make EEE Munitions useful and appropriate in the current times." He said. "I could have used more expensive materials and better tech to design a better ballistic round, but that would never get accepted by the market. I had to design a round that produces a good effect while also being cheap."

"Cheap and good usually don't belong in the same sentence." Ves voiced as he stared at his student with interest.

"I know. I went into this with the knowledge that I had to go above and beyond in order to create a type of munitions that is among the few exceptions. Since that was the case, I decided to aim high. There are many possible munitions that I could have developed, but I chose one that is most needed among second-raters and third-raters. I wanted to develop an affordable round that can damage a shielded enemy."

"I see. Your ambition is not small. You took a considerable risk by going in this direction. You may have worked yourself into a dead end. That you somehow found a way to reach the light at the end of a tunnel is nothing short of a miracle."

Zanthar responded with a rueful smile. "In truth, my research hit a bottleneck. I could have remained stuck for many years if not for a recent turn of events. I will explain that a bit later. I should first explain the idea I came up with to produce the result you saw in the test footage."

This should be interesting. Ves leaned forward in a clear sign of interest.

The younger mech designer raised his arm and projected a very familiar looking model.

"Ever since Messier 87 began to shine its exotic radiation onto the Red Ocean, we all gained access to a new source of cosmic energy that comes with its own rules and

quirks. Many researchers and mech designers have conducted extensive research on the attributes that differentiate E energy. The most common attributes that people are studying belong to the five elements. I chose to base my research on the five elements as well."

"Why?" Ves curiously asked.

"Several reasons. Many researchers who are much smarter than I have discovered and published a lot of useful information on the five elements. Every academic journal release always contains a bundle of useful lessons on hyper materials and E technology, and much of that is related to the same elements. By absorbing all of this knowledge, I did not have to start from scratch, but try to combine what I have learned to create a new design application."

He chose correctly. It was too difficult to follow Ves' example and pioneer a completely new field from scratch.

Most mech designers worked like Zanthar. They extensively studied existing knowledge and tried to combine different pieces together to produce a new combination that would hopefully be useful.

"So what did you learn about the five elements that caused you to have the idea that you could develop a means of attack that can partially bypass energy shields?"

"I had an idea that if I created an explosion with E energy, it would somehow become violent enough to cross from one realm to another realm." Zanthar explained his reasoning. "I had no proof whether this is possible and whether I can realize it, but I was so taken by this premise that I had to commit to it. This made me search for an E energy attribute that is most likely to produce a powerful explosion. This is why I first settled on the fire attribute."

"I imagine that was not enough for you." Ves said. "The fire element can potentially produce a powerful explosion, but it is much more effective if it is used with another element to produce a dramatic interaction."

Zanthar nodded. "I found that out as well after conducting a lot of experiments. Fire energy mostly wants to burn. This is why I tried to find an E energy attribute that can produce a violent reaction. I tried my best to stick with the 5 elements because anything else would make my product more expensive and difficult to mass produce."

"Let me guess. You settled on the water element."

"Yes, teacher. Fire and water do not mix well. There is lots of research that describes how different proportions of fire energy and water energy could produce something akin to explosions. I used up many samples of hyper materials of these two attributes to see if I could reproduce that effect. It was... harder than I thought."

"This must have been the first bottleneck in your research." Ves knowingly said.
"How did you solve this challenge?"

Zanthar lowered his head in disappointment.

"My solution is anything but perfect. I initially tried to mash different proportions of fire and water hyper materials together, but the results I got were either too gentle or violently inconsistent. I never managed to find the right ratios and shapes to produce the effect I wanted. I eventually became so upset that I decided to give up on working with two hyper materials. After a lot of thinking, I decided to add a third material to see if I could add a measure of control. I chose wind energy."

"Reasoning?"

"Well, I did not conduct all of the failed experiments in vain. They taught me how fire and water energy interacted with each other in different proportions. I noticed that if you expose a small quantity of water energy to a large quantity of fire energy, the former will behave like real water and turn into steam that violently ejects in different directions. I noticed that this 'spiritual steam ejection' had quite a respectable amount of force behind it. I could easily imagine using it as a weapon. Yet when I tried to develop this angle further, I found that no matter how precise I made my work, it always produced different spiritual steam ejections with every attempt."

The idea sounded strange to Ves, but Zanthar obviously thought it had merit. This caused him to persist in his research.

"It was not until I read a treatise on fire energy that I discovered that it was inherently volatile in nature." Zanthar continued to speak. "It never maintained the same shape and was always changing. Fire is an element that embodies change. Burning is just one of many chemical reactions. I concluded that if fire energy alone would not be

able to act in a predictable fashion, I sought out a third E energy attribute that could impose control."

"The wind attribute."

"Yes. I worked so hard that I eventually found a way to design a round where the triggered activation of a hyper material would cause wind energy to blow onto fire energy. The two synergise each other due to unknown reasons that caused a consistent and unchanging cone of fire energy to hit the nearby collection of water energy. The rapid contact causes water energy to get agitated and blow in a single direction."

This explained why the new FadeBurst Round relied on fire, water and wind hypers. It was not possible to produce the same kind of ammunition without access to any of these materials.

It did not explain how an E energy attack could produce physical damage.

Under ordinary circumstances, only high-ranking mech pilots had the ability to turn a virtual attack into a physical attack. The use of willpower could ignore many laws of reality!

Zanthar did not have the luxury of working under those conditions. The vast majority of his customer base for his product should encompass the poor and average citizens. They needed a solution that they could readily use to increase their combat effectiveness.

"So I found a good combination of hyper materials to inflict damage with E energy. Now I had to make it damaging to solid matter while also bypassing energy shields. I conducted a lot of random experiments and read a lot of academic articles. I was trying to force myself to read 50 articles a day. That was a nightmare considering most of the literature is written for Seniors, Masters and high-level researchers."

"You're not supposed to read that kind of material." Ves said with a frown. "I grant the mech designers of the Design Department access to those databases because I trust you guys to exercise good judgment and self-restraint. If you read too many articles written by Masters, you will inevitably get contaminated by their design philosophies."

Zanthar's expression grew complex. "I think... that is one of the reasons why I succeeded."

"What?!"

"I didn't know what I was doing, okay!? I read a lot of articles and conducted a lot of random experiments in between. As the days continued to pass, the two started to blend into each other. I began to devise strange theories by combining all of the overcomplicated research that I have read, and I wanted to verify what I came up with by messing around in my design lab. For a long time, I never managed to produce any solid results, but all of the trial and error allowed me to get closer to the right answer. Then, my progress stalled."

"Another bottleneck?"

Zanthar nodded. "I couldn't make any further progress because I had to balance too many variables. If I change one parameter, something else goes wrong. If I change that other parameter, fifteen things become misaligned. It was a nightmare for me to find a configuration that made everything right. If I wasn't able to grasp any rules, I thought it would take years to make any significant progress. That was when you brought in the SF-02."

"Are you saying that the new processor cluster has helped you achieve a breakthrough?"

"I guess so, teacher. I initially did not think it could help all that much, but when I talked to Polly about how to solve my problem, she helped me figure out what sort of calculations and simulations needed to be performed. She even suggested the help of Aria for one reason or another. After the two smart AIs went to work, I only had to wait for a couple of days before she gave me the results. It. Changed. Everything."

Zanthar pointed at the projected rounds. "When I saw the results, it was as if everything in my mind clicked. Multiple different theories that I picked up from those academic articles started to make a lot more sense when used in combination with each other."

"Can you explain the working principle of this shield-bypassing effect to me in simple terms?" Ves requested.

"Well, in short, I think that you and everyone else must have noticed that E energy radiation pretty much goes through everything. Aside from a few materials that can naturally block E energy, everything is permeable to E energy. The radiation just passes straight through energy shields, alloy plating and even our bodies. While some of the E energy might stick due to hyper materials or qi cultivation, the rest will continue to pass through."

Ves widened his eyes. "I see now! The FadeBurst Round is only meant to create a burst of water energy in a single direction. As long as it retains the properties of E energy, most of it will pass right through the azure energy shield! The defensive measure doesn't even identify the intrusion as a hostile attack!"

This was a clever way to circumvent defenses!

However, Ves quickly frowned when he still did not gain an answer to the most important question.

"Wait, if the directional burst of water energy passes right through the azure energy shield, logic dictates that it should pass through the armor of a mech or the hull of a starship as well. The only exception is if the E energy comes into contact with one of the few materials that can block the passage of E energy, but that is almost never used. What is your secret?"

"That is the most interesting part." Zanthar grinned.

Chapter 6814: FadeBurst Round

The second-class and third-class FadeBurst Rounds invented by Zanthar Larkinson were rather weak.

It couldn't be helped. Their designs did not contain any special tech or materials that focused on increasing damage. When fired from a ballistic rifle, the rounds were more prone to shattering before it could expend all of its kinetic punch onto an obstacle.

Much of this had to do with the large proportion of hyper materials in the designs. They were decent at attracting E energy, but possessed disappointing physical properties. The greater the proportion of hyper materials, the weaker the overall construction.

This was a problem that plagued the Amaranto Mark III design as well. If not for Gloriana's excellent use of archetech and targeted amounts of high-grade exotic alloys to reinforce the mech frame, the ace mech would not have been able to spar so intensively against the Lamia Kailamassu.

From what Ves could gather so far, the FadeBurst Round centered entirely on ejecting a focused burst of water-attributed E energy in a single direction.

Zanthar's explanation about how E energy was mostly able to bypass azure energy shields without issue, he still had not revealed the most critical mechanism behind his remarkable new invention.

How was able to convert a focused spray of E energy into a physical attack?

Without the use of true resonance to alter its properties, Ves could not think of any way to make this happen.

"The secret behind how I was able to do it is... Alfred, my companion spirit." Zanthar finally exposed the source behind his most important breakthrough in his research.

"Mawah!"

A green cat that looked like he was on fire emerged from Zanthar's forehead. The cat still looked fairly young, but he had grown considerably from his kitten stage.

When Ves and Blinky examined Alfred, they noticed that the reason behind the companion spirit's vigorous growth was due to practicing a qi cultivation method based on the fire element.

Ves was not familiar with this qi cultivation method, but he could feel from Alfred's spiritual emissions that he not only became more aligned to the fire element, but also gained more volatile and explosive qualities.

Alfred should not only be able to create spiritual explosions that could damage E energy constructs, but also use his cultivation to create physical explosions!

The answers fell into place.

"You... managed to replicate one of Alfred's abilities into the FadeBurst Round." Ves voiced his conclusion.

"That is right." Zanthar said. "As you know, Alfred can turn a regular projectile into an EEE Round by infusing a small amount of his energy into it. He can also amplify the power of an existing EEE Round and enable it to inflict more physical damage. That is where the original conversion came from. One of the problems that I have been trying to solve in the past few months was to replicate this conversion process in my mech design. I cannot fully explain how I managed to do it, but after borrowing the help of Polly and Aria, I managed to design a mech armed with a ballistic rifle that can somehow make my FadeBurst Rounds behave as I wished. I knew that my design philosophy had made enough progress. I broke through shortly afterwards."

"That makes sense." Ves nodded. "It is not unusual for you to be unable to explain the underlying mechanics of what you are able to do. Many mech designers are faced with this 'chicken and egg' problem. It is through the help of their design philosophies that they can imbue their mech designs with characteristics that shouldn't physically be possible. Yet in order for mech designers to be able to create such works, they need to become Journeymen first in order to produce a noticeably strong effect. It is considered remarkable for Apprentices to be able to develop this special munition type at the strength of an Apprentice Mech Designer. That shows that your design philosophy not only holds greater promise, but that you have dedicated your heart and intention towards its realization."

Ves was in the same boat, so he knew exactly what it was like. It took strong dedication and unwavering confidence in one's vision of mechs to be able to produce such a reality-defying result.

Mech designers may not be as blatant as mech pilots in distorting the rules of reality, but that did not mean that the people staying in the rear were powerless. They channeled their strengths in other ways that best suited their preferred means of serving the people.

The two mech designers continued to talk further about the FadeBurst Round. Through the mysterious operations of Zanthar's design philosophy, his FadeBurst Rounds mysteriously managed to make up for the remaining gaps in its mechanisms and successfully convert E energy into a physical attack.

There were many limitations to this conversion process. Zanthar had already conducted extensive tests.

"My FadeBurst Rounds are best fired from the kinetic ranged weapons that I have designed." Zanthar explained. "Although they can also be launched from other weapons that can accommodate their caliber, the conversion process will weaken, causing the rounds to inflict less damage. The test footage already shows that. My FadeBurst Rounds should be able to deal a little more damage when fired under ideal conditions, but don't expect any miracles. The efficiency of the conversion process is terribly low."

"How much?"

"I am having difficulty with measurements, but in my estimation, at least 70 percent of the energy contained and leveraged by the hyper materials ultimately get wasted. Only 30 percent or less of that potential is converted into physical damage.

Ves did not look too upset with that. "This is still a good start. You are actually lucky that you can convert 30 percent of the potential of your FadeBurst Round into actual damage. It should be much more common for an initial experiment to be just 1 percent effective or less. You have saved yourself a lot of detours in your subsequent research."

The new Journeyman smiled at that. "I at least confirmed that I am working in the right direction. There is also a lot of room for improvement. I at least want to raise the efficiency of the conversion process to 50 percent."

Whether Zanthar could reach this goal in a few years remained to be seen, but Ves quietly wished him good luck.

"Alright, your FadeBurst Rounds are best used by mechs that are purpose-built to utilize them." Ves concluded. "If that is the case, then I want you to spend your time on developing a variant of the Yellow Jacket B and C to accommodate this new EEE Munition of yours. No matter whether your FadeBurst Rounds are effective on the battlefield or not, I want to give each of our customers the option to try out your new weapon system if possible."

"I am honored, teacher." Zanthar said as he bowed in gratitude. "I originally developed the FadeBurst Round with your Yellow Jacket in mind. I have already completed a large amount of preliminary work."

Ves raised his palm. "Not so fast, Zanthar. Before we discuss this matter further, I still need to know about the weaknesses and shortcomings of this round. I am curious about how much actual damage it can do against a shielded target. From what I have seen in the test footage, it is not much."

Zanthar sighed. "That is why I consider the FadeBurst Round to be an incomplete design. There are two major problems. I already mentioned the first one. The efficiency of the conversion process is too low. A lot of energy is going to waste before it ever hits the target. The second problem is the dispersion of water energy. Due to many reasons, when the FadeBurst Round crashes against an energy shield, the water energy ejected from the projectile spreads forward in an expanding cone pattern. This means that the power is most concentrated at point blank range, but quickly spread out. That means that the distance between an energy shield and the object under protection largely determines how much damage is being dealt."

This was easy to understand. If the water energy had yet to spread out, much of its power was still concentrated, enabling it to penetrate through alloy plating with relative ease.

If the water energy did not encounter any immediate obstacles and continued to traverse through empty, then by the time it struck a piece of alloy plating, much of its power would have dispersed already, causing the plate to endure virtually no effective damage!

The amount of energy in both scenarios remained roughly the same, but the results were drastically different!

It could mean the difference between getting poked by a knife and getting slapped by an open palm!

As Ves thought about the implications of what he learned, he roughly figured out how this flaw compromised the effectiveness of FadeBurst Rounds.

"Since the distance between an active azure energy shield and an object under protection is so crucial, then your FadeBurst Rounds are only effective against smaller

targets." Ves deduced. "Phasefighters are equipped with small azure energy shield generators. The latter are designed to stick as close to the exterior surface of the alien craft as possible. Any excess room results in wasted energy. This happens to play to the advantage of your PhaseBurst Rounds. When they strike the azure energy shields of these alien phasefighters, the water energy bursts only have to cover a distance of a meter or two at most before striking the vulnerable frames."

Zanthar eagerly nodded. "I think my first EEE Munitions will be especially effective when used to counter weaker alien phasefighters. However, it won't work against the more expensive and elite phasefighters. Their frames are made out of superior alloys that can withstand much of the damage."

"I know, but this is already a pretty good result for your first iteration of your FadeBurst Round."

"Another shortcoming is that if a target loses its azure energy shield, the attacking mechs are better off switching to a different ammunition type than my FadeBurst Round. It is frankly awful when used to damage unshielded enemies."

"I agree. This is a hefty shortcoming, but not an insurmountable one." Ves said. "You should design a kinetic rifle that can easily and quickly switch between two different ammunition types. The mech pilot can choose to switch between armor-piercing rounds and FadeBurst rounds."

"I have already begun to design such a weapon, teacher. In fact, I want the weapon to be able to load more ammunition types in case I invent additional variations of EEE Munitions in the future. I want my weapons to be just as versatile as your luminar crystal rifles."

"Your initiative is good. Have you ever tested whether your FadeBurst Round is effective against enemy warships?"

Zanthar shook his head in disappointment. "The results are not good. I haven't conducted any realistic tests against an actual starship, but according to the data gathered from other experiments, my FadeBurst Rounds are virtually ineffective against even the weakest alien warship. The distance between an azure energy shield and the hull can easily span 10 meters or longer. That is already enough for the water energy burst to disperse in a huge cone. The hull plating of enemy warships is also much thicker and denser than the armor plating of a cheap phasewater. Even if the

dispersion of water energy is non-existent, it will still struggle to inflict any noticeable damage onto solid hull plating. At most, my FadeBurst rounds can be used to clear vulnerable sensor arrays and other delicate systems."

Ves grew disappointed. "I see. It makes sense. Is it possible to drastically increase the effective damage of your FadeBurst Rounds by utilizing more expensive hyper materials? What about adding phasewater?"

"I haven't conducted any tests on rounds made with more premium materials, but I can already tell you that they will most definitely pack a greater punch." Zanthar said. "However, it will become too expensive to make use of them. You need to fire a lot of rounds in order to damage any tough target. Once you fire the rounds, you won't be able to recoup the costs. If you are crazy enough to use phasewater on these rounds, I can't imagine how much money you will be throwing away. Besides, the entire point of developing the FadeBurst Round is to give mechs a way to defeat shielded targets without relying on this limited resource. My work has to be affordable in order to offer enough value to customers. Otherwise, you are better off using a transphasic hyper luminar crystal weapon."

Chapter 6815: Future Research Directions

Now that Ves gained a much more complete understanding of Zanthar's FadeBurst Round, he began to evaluate whether it was ready for widespread use.

He eventually shook his head.

"You have given me an interesting presentation, Zanthar. Your breakthrough is completely justified. You have demonstrated a good amount of ingenuity. What is most commendable is that you made clever use of the resources that you have available. It is not a mistake for you to rely on Alfred and the smart AIs to solve a puzzle that had frustrated you for many months. So what if you cannot fully explain the theory behind the conversion process? Mech designers are not scientists, though we usually act like them whenever it is convenient. We are both engineers and artists. In order to design our ideal mechs, we are willing to rely on expedient methods. As long as the mechs work, you have done a good job."

His encouraging words fed into Zanthar's pride and vanity. It felt good to receive praise from the best Senior Mech Designer in the Red Ocean.

"Thank you, teacher!"

"That said, your evaluation of your own work is not wrong. Your FadeBurst Round cannot constitute a complete product. Not yet. As a proof of concept, it has brilliantly fulfilled its purpose. The testing of the prototypes shows that your work has successfully nailed down the essential mechanisms. From the combination of hypers that can produce a focused burst of water energy, to the mysterious conversion process that is derived from your companion spirit, you have successfully put all of the essential pieces together. They are just really crude and badly made for the time being. You need to spend a long time refining and optimizing what you have made."

Ves reached out with his hand and 'pulled' one of the projections that displayed the FadeBurst Round.

He then began to alter it in real-time. The projectile length grew longer. He increased the proportion of hyper materials, but altered the shape of the exterior so that it retained most of its rigidity. He then began to substitute the low-grade hyper materials for other ones that possessed many of the same properties but also contained their own unique qualities.

Ves was only casually messing around. These changes might cause the FadeBurst Round to produce much weaker results than before. The only way to know for sure was to test it out in reality, which was tedious and time-consuming.

Still, the demonstration inspired Zanthar. He had already thought about many of the changes that Ves made, but a few of the proposed solutions opened his eyes.

"What is your plan going forward, Zanthar?"

The younger mech designer already had an answer ready.

"I have three different goals in mind. On the one hand, I need to study a lot in order to become a Journeyman that you can depend upon. I want to become a first-class mech designer just like Alexa Streon and Kelsey Ampatoch. Seeing the two at work makes it clear that second-class mech designers are too far behind. I don't want to become an invisible fly to you and the rest. I want you to think of my name whenever you need a mech designer that can perform magic with kinetic weapons. I want to play the same role as Lord Richard Brownstone did when he collaborated with you on the legendary Swarm Project."

Apprentices could generally get away with relatively shallow education.

That was no longer the case for Journeymen.

Once a mech designer reached this rank, he had to perform at a higher standard, and that can never be done if he was lacking in knowledge.

Ves leaned back on his office chair. "It is understandable for you to think about this. Learning additional theory can indeed help you with refining your mech designs as well as your EEE Munitions. However, you told me earlier that you read a lot of high-level academic articles. I believe your head is already filled with knowledge, especially relating to hyper technology and E-technology. This has contaminated your mind and caused you to partially lose control over yourself. You are fortunate that it has worked out this time, but that does not mean that you should push your luck. What you need the most at this time is a vacation."

The younger man vigorously shook his head when he heard this suggestion.

"That is unacceptable to me, sir. I cannot rest. I do not want to relax while many people are fighting and dying as we speak. If I can't study, then I at least want to improve my EEE Munitions. The current iteration of my FadeBurst Round may be useless in all situations aside from trying to damage weak alien phasefighters, but it has lots of room for improvement. This is my second goal. I cannot stand the thought of leaving it half-finished."

"That is a good goal to pursue." The older mech designer smiled. "Your proof of concept is successful. Now you need to bring your FadeBurst Round to maturity. Your unfinished product is not powerful enough. You can address this problem in two ways. You can either use more expensive materials, or increase the efficiency of the various processes that take place when your projectile hits an energy shield. I suggest you explore both solutions."

"I do not like to spend my time on developing more expensive versions of my FadeBurst Round. Making it more expensive to the point that it is unaffordable goes against my vision for this product." Zanthar objected.

"You don't need to develop a product for the market. You can try to develop a superior round for the sake of exploring the depth of your new tech. You can also develop projectiles that our mech pilots would love to use. There are several machines in our mech roster that are armed with kinetic weapons. The recently released Karma Cutter

comes to mind. While its Null Rifle is primarily designed to fire Null Rounds, you can develop a modified FadeBurst Round that is compatible with our proprietary weapon system. The combination between the Karma Cutter and modified FadeBurst Rounds may produce interesting combinations on the battlefield."

Zanthar looked a little dubious after he heard this suggestion. "I have been thinking about developing second-class and potentially first-class FadeBurst Rounds that are compatible with gauss rifles."

"That is also a good idea."

"Aside from that, I do not want my specialization to produce only a single product. I developed the FadeBurst Round out of necessity, but I do not want my entire career to be based around this single product. I want to explore other ideas. There should be other hyper materials and other combinations of E energy attributes that I can exploit. I want to expand my catalog of solutions so that I eventually have a product for every situation."

"This is a good strategy over the long-term, Zanthar, but do not be in a hurry to spread yourself out right away. You need to do way too much stuff at this time. You should focus on finishing your FadeBurst Rounds first before branching out. If you don't complete your initial work, then your subsequent ones will retain many of the same flaws. Ideally, you should also study a lot in order to increase your theoretical foundation, but this is not a good time for you to do so due to earlier missteps."

Zanthar frowned. He still found it difficult to avoid any deliberate study. It was exactly because he read a lot of advanced theories that he managed to create his FadeBurst Round.

"Do I really have to follow your recommendation?"

"No." Ves shook his head. "Do not misunderstand. I feel responsibility towards you, but I have no interest in imposing my own ideas and design style on you. As far as I am concerned, you are free to arrange your schedule and pick your activities based on your own judgment. If you insist on studying Journeyman-level textbooks, then you can do so. Perhaps this may result in pleasant surprises. However, I sincerely believe that studying so intensely after immersing yourself in theory for so long is detrimental to your mental health and progression. This is why it is better for you to engage in more practical work and experimentation."

This was not entirely ideal as Zanthar would still be exerting a load on his brain, but at least it shouldn't be too heavy.

"I have high hopes for you, Zanthar." Ves said. "Do not be in a hurry to perfect your FadeBurst Rounds. They may be useful against the native aliens, but it is no silver bullet. Even if you optimize it so that it becomes 5 times as effective than before, it can only help our mechs shred enemy phasefighters with greater ease. It is difficult for me to imagine that your FadeBurst Round can be effective when employed against warships. Their hulls are too thick and their prodigious volumes make it difficult to concentrate the power of your special round. It can only be used to free up mechs for assaults against enemy warships."

This could make a considerable difference in the Red War.

Being able to kill enemy phasefighters faster should allow for mech forces to attack enemy warships with less concerns.

However, whether FadeBurst Rounds could truly enable such a strategy remained to be seen.

What Ves wanted to convey was that it was not necessary for Zanthar to make his FadeBurst Round more effective against enemy warships, especially larger ones.

His produce should instead focus solely on eliminating small craft. If he wanted to develop a solution that was more effective when used against warships, then it was better for Zanthar to develop a different type of EEE Munitions.

Ves and Zanthar continued to chat for a while. The latter had many questions that the former was willing to answer in one way or another.

While Ves conscientiously sidestepped the matters that Zanthar would get to learn during his pilgrimage to the Red Association, he freely dispensed advice on many other subjects.

Just like the Seniors and Masters that Ves had met throughout his career, he now felt a solemn responsibility to guide the younger generation of mech designers.

A lot of mech designers could avoid a lot of mistakes and detours if they received sage advice.

"When you are ready to start learning again, I can offer you an EdNet quota if you want." Ves offered to his student. "Of course, I will only offer it when red humanity's borders become stable. As long as you are willing to remain absent for 4 years in the main universe, then you will come out much more competent than before."

Zanthar clearly felt tempted, but he reluctantly shook his head. "I think I can catch up with my studies pretty quickly due to how much my memorization has improved after practicing an auxiliary qi cultivation method. I think I can manage to stay afloat. I really do not want to miss the events that are taking place during these months and years. I feel as if I am witnessing real human history unfolding in front of me. I don't want to look back on this period and get reminded that I spent much of the most critical periods of our race in virtual reality."

"I see. I think you have made the right choice."

"Would you like to travel around like Journeymen are supposed to do?" Ves asked next.

"To be honest, I haven't made up my mind on it. I feel tempted to go, but I don't want to leave the Design Department and explore unfamiliar terrain."

"I won't make your decision for you, but I think you can benefit a lot from traveling to different locations and learning the local customs. Seeing new and amazing stuff in person can inspire you. Perhaps you will generate an idea that can serve as the nucleus of your second type of EEE Munitions."

Zanthar looked interested. "This is certainly on my mind, but I still need to pick the destinations that I wish to visit."

Chapter 6816: First-Class Recruitment

After settling matters with Zanthar Larkinson, Ves met up with his wife later on to discuss how they should treat the new Journeyman.

"Meow~" Lucky swished his tail in contentment as Gloriana lovingly scratched him on the head.

His archemetal exterior felt abnormally warm and soft to her touch.

Gloriana had taken a liking for Lucky. His naughty personality reminded her of Ves, and his archemetal body frequently granted her inspiration on how to improve and develop her mastery of archetech.

As the mother continued to pamper the gem cat, she voiced her own opinion towards Zanthar.

"His design philosophy is too narrow. I mean, he has the potential to become as good as Lord Richard Brownstone, but his repertoire is too small for the time being. I have studied his private mech designs and his work is far below the standard that I expect from a second-class Journeyman Mech Designer. He needs to study a large amount of textbooks and design at least half-a-dozen mechs all by himself before I can even consider the idea of putting him in charge of a serious design project."

Her verdict sounded harsh, but Ves knew it was fair. His own evaluation of Zanthar was not that different.

"Zanthar is not as talented as the Journeyman Mech Designers that we have recruited over the past few years." Ves shared his own opinion. "I have given him a good amount of tutoring and granted him access to a lot of learning resources. His conditions are far better than many other second-class mech designers. While he has managed to come up with an invention that has the potential to revolutionize combat against shielded enemies, the practicality and effectiveness of his FadeBurst Rounds are too poor to be of use. He has nothing else aside from this. If he participates in a mech design contest, he would be the kind of person who will earn a below average score and be completely forgotten by the audience."

He had taught Zanthar for years. Even if he largely took a hands-off approach and gave Zanthar enough space to decide his own curriculum and specialization, Ves did not neglect his student entirely.

As far as he was concerned, neither Maikel nor Zanthar could come close to Alexa Streon in terms of talent, potential, judgment and competence.

Zanthar's unusual choice to form a design philosophy around special munitions of all choices also made it difficult for him to make a lot of achievements in the future.

However, that did not mean Ves was ready to write Zanthar off. Ketis was no genius or prodigy either, but she believed in her own conviction and vision of mechs so much that she had found success by establishing her own niche as a Journeyman Mech Designer.

Although Ketis was a lot more famous for being a swordmaster these days, her mech designs were truly useful and powerful enough to earn the adoration of the Swordmaidens.

Ves had a feeling that as long as Zanthar did not give up and continued to pursue his original vision, he may one day become a Journeyman Mech Designer like Ketis or maybe even Ves.

Their success did not rely on excellent skills or designing mechs that were nearly devoid of flaws.

Instead, their kind derived their success by opening up new markets for innovative mechs that did not exist in the past.

Why bother competing against existing mechs when they could just find an unoccupied corner and sell their own unique mechs?

Even if their products possessed obvious shortcomings, as long as their value proposition was strong enough, people would still buy them in droves!

"I think Zanthar has a bright future ahead of him, but it will take time for him to reach that point." Ves judged. "I am proud of what he has accomplished so far. His proof of concept is already innovative enough to attract further investment. It is a pity that the gap between an experimental prototype and a competitive product is too wide. I have no idea how much Zanthar will struggle to bridge this divide."

Gloriana smiled as she caressed Lucky's back. "I do not think it will take as long as you think. You are still thinking about the outdated metrics of the Age of Mechs. We

are in the Age of Dawn. Zanthar not only enjoyed the benefits of auxiliary qi cultivation, but also had a weekly quota of 16 hours with the SF-02. You told me earlier that the smart AIs helped him achieve his breakthrough. I think that the assistance of Polly can continue to accelerate his research."

She was right. Ves felt grateful for this reminder. Red humans were destined to progress a lot faster than original humans. Exotic radiation made such a great difference that the two branches of humanity were bound to diverge further over time.

Perhaps the differences would grow so great in the future that red humans could constitute its own separate species.

This was similar to how primordial humanity was so unfathomably more powerful than original humanity that it was hard to think they were related!

"Zanthar is far from the only mech designer that is taking advantage of E energy radiation." Ves responded. "He may be able to progress faster in this environment, but his rivals and competitors are not slowing down. I have been noticing that many of the other Journeymen are making a lot of progress in their own time."

His wife nodded even as she began to rock Lucky like he was her baby.

"The Journeymen that you have recruited over the years are truly superior stock. They are all ambitious and unwilling to get left in our dust. Beatrice Hendrix, Viktor MacMillan, Harry Kaikkonen and Adrien Marceau have particularly impressed me with their work and rate of improvement. While I do not think that they will advance to the rank of Senior Mech Designer anytime soon, I would not be surprised if they do in the next 5 to 10 years."

That sounded really good. Not everyone could be measured by the insane standards set by the Polymath. Becoming a Senior Mech Designer at around 50 to 70 years old was commendable.

"Alexa Streon and Kelsey Ampatoch are much better than them due to their Terran or Rubarthan backgrounds." Ves felt obliged to mention. "They are already undertaking far greater responsibilities. We should focus on recruiting additional first-class mech designers, but not too many at once. I don't want to give the second-raters the impression that I am trying to replace them as if they are obsolete mechs."

"Meow meow~"

Lucky stretched his body and limbs, granting Gloriana a chance to rub his belly.

The female mech designer frowned in thought.

"Now that you mention it, I have already tasked our recruiters to take a close look at the applications we have received from first-class mech designers. If the need is great, I can accept the most promising applications right away. I have been holding off on this decision because the arrival of so many superior mech designers may cause unwanted division. Alexa and Kelsey are too oppressive towards second-raters, you know that? They naturally exude their superiority and their productivity is so much higher that they can drive a second-class mech designer to despair."

The arrival of the SF-02 significantly eased the pressure on the Design Department, but it did not solve every problem.

The Design Department still needed to increase its output of mech designs.

The demand for both original designs and variant designs was growing with every passing year.

The consequences for failing to address this problem were severe.

Expert pilots and ace pilots may be forced to wait for two years before they received stronger machines that matched their strength.

Norms that couldn't wait to become Carmine mech pilots had to wait for multiple years until the LMC released a Carmine mech design that catered to their interests and budget.

The loyal customers who fell in love with old LMC mechs from the previous generation may be forced to switch to third-party mechs because the lack of modern updates increasingly put their lives at greater risk.

These reasons and more all demanded an expansion to the Design Department.

"I am looking into recruiting a batch of first-class mech designers from all three colonial alliances." Gloriana said. "Right now, I am closely studying the applications from Terran mech designers who graduated from the Eden Institute of Business & Technology. The ones who attended your classes in the past few years should find it much easier to integrate into our clan and make meaningful contributions to our mech design project. Who knows, they may even be able to design living mechs like Ketis and I. That will allow us to work on more living mech designs at the same time."

This was a good solution. Ves had not been as attentive when it came to fulfilling his teaching duties, but there were certain Terran mech design students that had managed to catch his interest or impressed him during the previous semesters.

If they were open to joining the Larkinson Clan, then Ves would definitely welcome these Terrans!

"That is a good idea, Gloriana. It doesn't matter if you play favorites and make the Rubarthans upset somehow. Competence is more important than hurting other people's feelings. Living mechs has always been a signature of our clan and mech company. It doesn't make any sense to publish mech designs under our label that aren't alive. I can't work on so many projects at the same time, so the best way to increase our Design Department's 'bandwidth' without stretching myself thin is to make progress in this area."

"This would be so much easier if you are able to realize your design philosophy." She said. "How much progress have you made?"

Ves thought on how he should answer this question, knowing that his wife was extremely sensitive to any perception that she was falling behind.

"Not that much, I think. I am not standing still. The Arboreal Project that is centered around Woodsap mechs should be the first step towards becoming a Master Mech Designer. The Hunting Association does not appear to be in a hurry to cooperate with me on designing a Mergewater mech. I still have no idea what I should design as my first Bloodfire mech. I am also too busy and short on time to work on my Polymetal mech. I have even less ideas about Elemental Carmine mechs based on the earth element."

His wife stared at him with unreadable eyes. She even ceased to pet Lucky, which elicited a complaint from Lucky.

"Meow!"

"It sounds to me that you urgently require more manpower to share your burden." She eventually said. "You are only one Senior Mech Designer, and you do not even have the benefit of a cranial augment suite that is empowered by Mentalist Crystal fragments."

"That is why I need the help of more mech designers like Alexa Streon. Let's start with screening the Terran mech designers first. They are already so close that it shouldn't take more than a week to interview them and test whether they have what it takes to become our next assistants and maybe even peers."

Gloriana remained still for a few seconds before she slowly nodded. "I shall take care of it. I am thinking about recruiting 3 Terran mech designers. It is not difficult to recruit more, but I am afraid that absorbing any more at the same time will result in too much tension among our current workforce."

Recruiting 3 mech designers did not sound like much, but it was a different story if they were highly competent first-raters.

They could make a huge difference once they settled into the Larkinson Clan and began their work in earnest!

Due to their excellent education, they required minimal study and training to become useful to the Design Department!

"If you think that is a good number, then go for it, Gloriana. I trust your judgment."

Chapter 6817: The Decline of Collective Responsibility

The Borteale System was burning.

Gas harvesters plunged into the brutal depths of the gas giants they once harvested for fuel and other materials.

Light mechs on scouting duty suffered ambushes that caused them to get torn apart by the transphasic hyper energy cannons of alien phasefighters.

Multiple alien fleets surrounded one stronghold after another. They methodically bombarded orbital defenses from afar and choked any attempt to launch serious counterattacks.

Enormous energy beams and projectiles the size of meteorites struck the Titan Shields that protected many settlements from annihilation. These powerful energy barriers could only hold out for so long before they collapsed, causing the residents who failed to evacuate in time to pray that their underground shelters were deep and sufficiently far away to survive the cataclysms that would ensue.

Ever since the Bortele System had been designated as one of the key nodes of the 5th defensive band, it had turned into the most important stronghold of the Torald Middle Zone.

If Bortele fell, the ravages of war would completely engulf the Krakatoa Middle Zone!

The human defenders assigned to resist the alien invaders fought harder than before. The stakes were far too high. Many of them still had families in the Krakatoa Middle Zone. Even if this was the case, they still felt responsible for the lives and deaths of trillions of colonists.

Whether these brave human soldiers could all evacuate away in time depended on how long they were able to stall the advancing aliens!

It was under these dire circumstances that the expeditionary fleet of the Golden Skull Alliance sought to make a difference wherever possible.

The port system where they previously traded away their plunder and replenished their supplies had become a raging hot battleground!

In fact, the expeditionary fleet was not supposed to be here. The Larkinson Army and the allied forces fighting alongside it all required a lot more time to replenish their spent mechs and recruit additional personnel. Their starships also hadn't been able to repair all of the damage that they accrued in previous engagements.

However, Saint Commander Casella Ingvar and several other leaders chose to cut their pitstop at Davute short and rush towards the Bortele System in order to make a difference.

Their intervention definitely helped. Many soldiers regained their confidence when several ace pilots of the Larkinson Clan and the Cross Clan chose to fight by their side.

The incredibly flashy and ostentatious performance of her Knights turned entire battles around.

Thousands of Knights and dozens of Barons struck the enemy phasefighters and warships like ancient heroes come to life.

Her Command Field blessed all of the mechs with an aspect of her true resonance, enabling them to hit their targets many times harder than normal.

Combined with the perfect command and coordination of a true ace commander, her forces regularly routed invasion forces while outnumbered three to one or worse!

Yet for all of her efforts, the aliens simply did not relent.

They took their losses with grim determination. Their faith in their native gods and their hatred towards humans overwhelmed their need for survival.

To the aliens, the Red War was not a game between high-level players.

It was a holy war that directly determined which side gained possession of the Red War.

No matter whether they were nunsers, orvens or zzamayels, each of them were more than willing to fight to the death!

Their fanaticism exerted immense pressure on the over-stressed linefighters.

The lack of time to recover and repair was taking a toll on every soldier, including the members of the expeditionary fleet.

The mechs and mech pilots outside of the control of her Command Field began to slip up and make mistakes that they shouldn't have made under optimal circumstances.

As stress, fatigue, trauma and other mental ailments caught up to the mech pilots, the Planetary Guard units of Bortele found it necessary to apply the glows of their Pacifier mechs on soldiers that desperately needed relief from their haunting nightmares.

As the proportion of forces getting killed or becoming unfit to rejoin the fight increased, the pressure on the remaining defenders also rose.

This turned into a vicious cycle where the aliens continued to gain ground no matter whether they won or lost a battle.

Several smaller planets and strongholds had already fallen due to the enemy's willingness to absorb great losses.

What was worse was that reinforcements weren't coming in as fast as everyone hoped.

The colonial states in the rear definitely had enough mechs and manpower to spare. They even dedicated a lot of their efforts on building additional fixed defenses as well as other combat vehicles such as tanks, starfighters and submarines.

Yet the leaders of all of those states no longer had faith that the fifth defensive band would hold.

So what if the frontlines at the Upper Zones held? That wouldn't save the states located in vulnerable regions like the Krakatoa Middle Zone from getting swept by an alien tide!

After realizing that no one could save them aside from themselves, the Davutans no longer sent anything but token forces to the frontlines. They decided to keep most of

their core fighting forces in their own territories in order to meet the alien attacks that were bound to arrive sooner or later.

The Saint Commander's expression grew ugly at the selfishness displayed by all of those colonial states. It was no wonder that Ves always looked down on these local and regional interests.

When their safety and power base were at stake, their leaders always made decisions that benefited their own narrow interests!

The clearest sign that the states had abandoned any pretense of reinforcing the increasingly diminished linefighters was the refusal to send out the 77th Warborn Mech Division.

Although Casella Ingvar hated the so-called Saint General, her personal animosity towards him paled in comparison to the need to save trillions of civilians from relentless alien raids.

She truly wished that the mech pilots and champions of the 77th Warborn fought alongside the forces of the expeditionary fleet!

She was even willing to let General Ark Larkinson preen like a peacock on the battlefield if that was what it took to delay the alien advance for a few more days!

Unfortunately, none of her messages received a satisfying response.

The Davutans were clever enough to use excuses such as the amount of time it took to replenish the serious losses suffered by the Warborn Mech Division, but Casella was no fool.

She understood logistics pretty well considering that she used to run the Living Sentinel Mech Legion.

As long as the Davutans sincerely wanted to reinforce the fifth defensive band, they could have dropped a few protocols and taken a few shortcuts. The Warborn could have been fighting alongside the members of the expeditionary fleet if Davute was truly willing to send out this elite mech division.

Yet rather than doing so, Davute withdrew many of its forces back to its own territories and refused to let them leave.

It was not alone in this behavior. Other colonial states no longer upheld their collective duty and responsibility to red humanity and kept their own forces in their own separate regions.

This caused red humanity's fighting forces to fracture and splinter!

The lack of any overarching strategy or coordination meant that it would be trivially easy for the native aliens to defeat all of the defending forces in detail.

The Davutans could not possibly withstand the invading aliens by relying on its own mechs and auxiliary warships.

The states located further in the rear should ideally send their armed forces to places like Davute, but that did not happen.

Instead, those states were happy to let states like Davute perish while consuming the resources of the invading aliens!

They all hoped that by the time the alien invaders moved deeper into human-occupied space, they wouldn't be able to press as hard as before.

Casella had little hope that this would come true. The lack of troop concentration would keep the native aliens in high spirits. The casualties they suffered by defeating the humans piecemeal would be limited.

This was a game of attrition that red humanity was bound to lose!

The Saint Commander felt extremely frustrated about this unfolding disaster. She refused to acknowledge that all of those cowardly and selfish leaders were blind to the mistakes they made.

Yet despite knowing that logic was against them, they still refused to coordinate any defensive efforts with other states!

Suffice to say, the visible lack of support from the hinterland of human space had a negative effect on everyone's morale.

No matter how much Casella and the others tried to reassure them, the linefighters that were suffering and dying in the Bortele System felt increasingly abandoned by their rear.

Honor and glory meant little as death continued to spread across the Bortele System and beyond.

The lack of reinforcements and the dwindling stockpiles of supplies continued to take a toll on the remaining defenders.

Although ace pilots such as Saint Commander Casella, Saint Dise Larkinson and Saint Linda Cross tried their best to rally them during every major engagement, they faced their own difficulties!

"Careful!"

Two greater phase lords worked together to accelerate a large rock from afar.

Their spatial manipulation had given the rock such a powerful push that it soared forward and threatened to crash against one of the largest orbital fortresses of Bortele III, the final remaining stronghold in the port system!

Thousands of Commandeered Transcendent Punishers and other ranged mechs unceasingly struck the space rock.

Huge chunks of stone got chipped away or vaporized into particles.

Yet against a space rock that was the size of a metropolis, none of the damage inflicted by the empowered mechs could make much of a difference!

The orbital fortresses were forced to divert their firepower from the enemy warships and focus their most powerful guns on the space rock.

Thunderous primary cannon batteries struck the incoming asteroid with a combination of solid projectiles and energy beams.

The space rock quickly shattered after enduring this bombardment!

The human defenders had no time to celebrate this small victory.

The two greater phase lords had already begun to launch another space rock that one of the alien assault fleets had especially retrieved from the nearest asteroid belt!

Again, the humans dedicated more firepower to intercepting the space rocks, enabling the enemy warships to press forward more aggressively as they endured less attacks than before!

"Let me loose!" Saint Dise aggressively requested a private communication channel. "My Decapitator thirsts for phase lord blood. These rock throwers need to die."

As much as the Saint Commander wanted this to happen as well, she still shook her head.

"No. Absolutely not. I told you before that it is a trap. The aliens aren't even hiding it that well. The 2 erudite greater phase lords are being guarded by 4 martial phase lords, two of whom are wielding Saint Piercers. They know they outnumber us and are practically salivating to bait us into their killing zone."

"I don't care! I can outfight any of them! These greater phase lords or not, I can easily maneuver around them so that they will only get in the way of each other! Trust in my skill, Casella!"

The Saint Commander's expression grew pained. "It is not your skill that is in doubt. It is your mech that is in question. It can't keep up with your strength."

That was a brutal observation, and one that Saint Dise could not refute.

As much as she believed in her ability to defeat the strong with the weak, the circumstances were far too stacked against her this time.

Perhaps the story would have been different if Casella and Dise received the ace mechs that they deserved, but that was an impossible dream.

The fact of the matter was that the First Sword Mark II and the Minerva Mark I were simply too weak to overcome the might of 6 greater phase lords that were fully aware of what they were facing.

Chapter 6818: The Complaints of the Weak

The expeditionary fleet retreated from Bortele!

It couldn't be helped.

The Larkinsons and its allies put up a good fight, but the odds were stacked against the defenders.

Lack of support, insufficient rest, rising casualties, plunging morale and not enough ace pilots all doomed the effort to save Bortele from falling into the hands of the vengeful aliens.

The defeat weighed heavily on the soldiers. They all knew that this was the correct decision to make. As hard as they fought to slow down the alien advance, they were not invincible. Their losses were hard to replenish, which meant that with every engagement, they became increasingly more outnumbered.

Even then, the soldiers of the expeditionary fleet could have chosen to stand their ground and defend Bortele III to the death.

Yet as honorable as it may be to put up a heroic last stand, the mech pilots did not want to sacrifice their life for an outcome that was already inevitable.

Whether the Bortele System fell today or tomorrow made little difference for them. It was not worth sacrificing their lives when the native aliens could just wait for reinforcements and make another offensive push.

Many of the soldiers knew that this was not supposed to happen.

The Bortele System could have held out for at least several weeks longer if the circumstances were more ideal.

If the colonial states sent out their reserves and newly mobilized mech units as they had done before, the linefighters stationed in Bortele wouldn't have become so badly outnumbered.

If Human High Command did not insist on transferring so many ace pilots to the Upper Zones, they could have prevented the enemy phase lords from dominating the battlefield.

It was already bad enough that the alien phase lords outnumbered their human counterparts.

What was worse was that they completely fought in a scumbag manner!

After suffering several humiliating defeats against the Larkinson Clan, the lesser and greater phase lords that found themselves its latest opponents had completely put down their pride and arrogance.

The phase lords were not in a hurry to lead their forces from the front. Two greater phase lords that were skilled in spatial manipulation combined their power to launch massive space rocks at distant targets.

Due to their enormous size and phasewater volume, they were able to fling asteroids of such great size that it took a huge amount of firepower to blow them apart!

The weapons utilized by mechs weren't able to break them up fast enough. Only warships and orbital platforms could dismantle them in time before they hit anything important, but even they could not keep their weapons active for hours on end.

Their ammunition and energy reserves began to dwindle. The weapon barrels and other mechanisms become increasingly more worn out. Their crews became more fatigued.

The erudite phase lords meanwhile kept going for many days without showing any visible sign of exhaustion. Their enormous and transcendent bodies granted them amazing endurance. So long as they did not exert themselves too hard, they may be able to persist for several weeks without interruption!

With other phase lords staying behind for the sole purpose of guarding this siege combination, the enemy champions clearly wanted to rely on flinging space rocks to exhaust the defenses of the humans!

It didn't matter to the aliens that their progress slowed down. As long as they remained patient, they could easily achieve results without taking any excessive risks.

At no point did the phase lords ever move forward even when they noticed that they outnumbered the enemy ace pilots.

They not only feared the possibility that they would inexplicably falter when fighting against the likes of Saint Dise, but they also did not want to trigger the breakthroughs of high-tier expert pilots.

After years of fighting against human champions, the alien phase lords had gained a good understanding of how they worked.

Many arrogant and overconfident phase lords had fought hearty battles against high-tier expert pilots, only to get capsized in the gutter when their human foe suddenly became a saint!

It was common knowledge that high pressure and heightened emotions were all correlated with a higher rate of breakthroughs.

The best way for phase lords to avoid getting blasted in their enormous faces by a newly ascended ace pilot was to avoid aggression as much as possible.

It was still possible for them to fight, but they carefully needed to grasp how much they attacked the enemy ace pilots.

If possible, the phase lords no longer fought to kill, but rather tried to tire out their enemies.

In any case, the native gods all possessed good defenses, so they could easily resist the attacks of most expert mechs.

Under these circumstances, expert pilots such as Venerable Brutus Wodin, Venerable Jannzi Larkinson and Venerable Joshua Larkinson had no chance of blazing their way towards sainthood.

The only way they could possibly force the issue was to go on the offensive and get close to the alien phase lords.

However, doing so would not only put a lot of distance between their ace mechs and friendly forces, but also put them in the heart of the alien armada!

Few ace mechs would be able to withstand the onslaught of attacks from nearby phasefighters and warships.

Combined with the attacks from every phase lord, even ace mechs wouldn't be able to last long under the circumstances!

This essentially ruled out any possibility of a miracle. The inability to produce breakthroughs cut off all hope of saving the Bortele System and safeguarding the Krakatoa Middle ZOne.

As the expeditionary fleet ultimately made the difficult choice to preserve their remaining strength and avoid a collapse by withdrawing from the Bortele System, the lack of accomplishments still weighed heavily on Casella's mind.

"This is war." Ves spoke over the comm. "I read the reports and watched the footage. You did your best under the circumstances. Our ace mechs made a difference. The aliens would have taken the Bortele System a lot sooner without you and the rest."

The Saint Commander grimaced in response. "You do not need to placate me. I failed. We failed. So many clansmen have fought and died in the Torald Middle Zone in the belief that their sacrifice would make a difference. In the end... I fear that their efforts to hold the defensive bands and safeguard our hinterland from alien incursions may ultimately be in vain..."

Ves looked closely at the projected form of the Saint Commander. He could feel that her cynicism extended beyond the failure to defend the Bortele System.

As an ace commander whose mind was naturally predisposed towards strategy and tactics, she likely deduced the true intentions of Human High Command.

Those high-and-mighty military strategists and planners were tasked with preserving the human race and as much of its society as possible.

This mandate did not necessarily translate into defending every single human life.

If necessary, these rational and ruthless thinkers may have decided that it was worthwhile to sacrifice the lives of space peasants in order to protect the core power base of red humanity.

While this decision made a lot of sense, it was very hard for the people fighting in the effectively abandoned Middle and Lower Zones to accept this harsh calculus.

"Casella, we don't have the power to protect the Krakatoa Middle Zone by ourselves." Ves gently spoke. "We are but one of many organizations in the new frontier. We are not responsible for everything that is happening. What matters is that we have already done the best we could. Nobody will be able to accuse us of doing less than what our duty demands."

"That is because we are too weak." Casella resentfully grumbled as she lowered her head. "Saint Dise eagerly wanted to chop the enemy phase lords, but her outdated expert mech cannot keep up with her ambitions. Swordmaster Ketis has promised to complete the design of the First Sword Mark III in two months or less, but that may already be too late to save the people who remain stuck in the Krakatoa Middle Zone from getting slaughtered. As for myself, you know more than I how long it will take to complete the design of the Minerva Mark II."

She had become a lot more cognizant about the importance of piloting better mechs. There were many decisions that she couldn't make in the Bortele System due to the inferiority of their mechs.

Ves tried to console the ace commander.

"We are working faster than before. We have already taken concrete measures to speed up our design work by acquiring a powerful new processor cluster. My wife has already begun to interview several first-class mech designers who may be able to undertake important responsibilities in the Design Department. Your Minerva is ready to be upgraded within a month. Once we have transformed your command mech, you will be able to make a much greater difference."

"Perhaps, but it will come at the cost of my absence in the Krakatoa Middle Zone."

Her tone along with her brooding expression caused Ves to develop a suspicion.

"Are you thinking about bringing your soon-to-be-graded first-class ace command mech back to the expeditionary fleet?"

"I am considering it." She admitted. "Why must all first-class mechs join the defense at the Upper Zones? There are already so many powerful assets over there that my entry will not necessarily make a difference. The second-raters who are left at the mercy of the alien invaders need my protection more."

Ves shook his head. "We already held this discussion before. Your Command Field is much more effective when applied to first-class mechs than second-class mechs. Helping other first-raters defeat their direct opposition will also blunt much of the alien push into our territories. As long as the battles of the Upper Zones are resolved, the aliens will not dare to overextend themselves and push too deep into the Middle and Lower Zones. This is the best way for you to save the people who are residing in the latter."

"I know." The Saint Commander responded. "It is just... I hate the notion that I am abandoning the second-raters who are left vulnerable to alien attacks. Fighting the enemies that threaten Krakatoa directly is much more satisfying than protecting this Middle Zone through more indirect means."

"No matter what, you will absolutely need a powerful first-class ace mech in order to support your ambitions. Now that you have tasted a lot of defeats, you should be more eager to get your hands on an improved machine. As long as you become powerful enough, you can force the strategists to prioritize saving lives and single-handedly defeat the alien phase lords that are so difficult to deal with by others."

The reminder of what she could do if she became more powerful lit a fire in her heart. Casella's eyes grew firmer as she stared at the mech designer who was calling from New Constantinople.

"The complaints of the weak are always ignored. There is little point for me to lament the injustice of it all. If I want to change this dwarf galaxy for the better, then I should at least come closer to wielding the power of the Fist of Defiance during his latest public performance. Is there any way to further strengthen my ace mech with the help of superdimensional matter?"

"It will be hard for the Minerva to match that outrageous god mech in the foreseeable future." Ves almost winced in response. "The First of Defiance excels at brawling. His superdimensional gear also works well for the simple configuration of the Invictus. Your Minerva fights completely differently on the battlefield. High-grade superdimensional matter won't do much to you beyond making your machine a lot more resistant towards damage. Your lack of Saint Kingdom means that you won't be able to amplify the properties of superdimensional parts as much as other ace mechs. To be completely honest, the Minerva should have the lowest priority of receiving a superdimensional makeover."

There was no way that Ves and Gloriana would agree to waste precious armor-grade and weapon-grade superdimensional matter on the Minerva Mark II when there were plenty of high-ranking melee mechs that needed it more!

Chapter 6819: Trusting A Loser

The withdrawal of the expeditionary fleet from the Bortele System meant that Saint Commander Casella Ingvar was free to travel to the New Constantinople System.

She and her mech had already boarded a fast courier vessel that would deliver them to Diandi Base as fast as possible.

Many people had great expectations for Casella Ingvar and her soon-to-be-upgraded ace mech.

Ves tried his best to juggle his attention between the Minerva Mark II Project and the Final Glory Project.

The latter was still important, but Ves did not want to neglect the former.

The availability of the SF-02 massively sped up progress in every design project, but it also forced Ves to work more intensively than usual.

He had to develop inventive solutions to different problems at a faster pace. In the past, a lot of calculation and simulation work took days to complete, so Ves could use that time on other activities.

That was not as easy to do as before. Unless Ves ordered his smart AIs to perform a really big job, he usually obtained the data he needed within minutes or hours.

This forced him to expend a lot more brainpower than before. While his productivity had increased, his mental fatigue also built up a lot faster.

Fortunately, all of the work would pay off in the end. Ves and Gloriana both felt gratified at all of the progress they made.

"How is your screening of the applicants going?"

"I am already interviewing the potential new recruits in person." Gloriana replied.

"Many of them are old students of yours. Their attainments in living mech design are not deep, but they hold genuine passion in the field. They have the potential to become the Alexa Streon or Maikel Larkinson so long as you provide them with private tutoring."

Ves looked interested. "I don't have a lot of free time, but I guess I can guide their studies every once in a while. They should be able to learn a lot more from my documentation. I can also tell Alexa to pass on her knowledge to the new recruits, as they only require the basics."

"The only downside is that most of the new recruits are still Novices or Apprentices that are still years away from becoming Journeymen. Whether they will be able to break through when they are 30 is still in doubt."

"I don't mind if the new recruits take their time." Ves responded in a calm voice. "Even if they are still stuck as Apprentices, I can still delegate a lot of simpler work assignments to them. They can also provide me with new perspectives on living mech design. Trust me, they can definitely help me a lot."

His wife did not question his assertion and simply nodded in acceptance.

She switched topics. "Casella Ingvar and her Minerva will be arriving early. This is good as we can collect more data and finetune the design according to her actual parameters. We can also apply minor changes to the design of the Mark II before we finalize the project. Make sure you do your best. This is by far our most important ace mech to date. The Saint Commander is a role model to the Larkinsons and a wonderful force multiplier."

"You don't need to tell me that, honey. I understand her strategic importance more than you. Don't worry about the Minerva Mark II. The design is already in a very good state so far. The assistance provided by the smart AIs has only made our work better."

His wife was worrying too much. She was juggling a lot of responsibilities as well and accrued a considerable amount of stress.

Ves tried to reassure her as best as possible, but he didn't think he made much of a difference.

They soon discussed another matter.

"I have received a notification that Venerable Rosa Orfan is making a good recovery." Gloriana mentioned. "The doctors permit her to receive guests. I think you should pay her a visit. I would do this myself, but the Riot Mark III Project is predominantly your work, so you should have this honor."

The mention of Rosa's recovery mildly took Ves by surprise. He had overlooked her presence in these past few weeks.

"I will take care of it. She must be feeling really depressed about her defeat and near-death experience. She could use a bit of encouragement, and what better to delight a mech pilot than talk about her next mech?"

"Are you still insisting on using up our limited reserves of armor-grade superdimensional matter on the Riot Mark III?" Gloriana questioned.

Ves let out a tired breath. "We already had this debate. Superdimensional matter should always prioritize melee mechs first. Of the projects that are in the pipeline, the Riot Mark III Project is the first that qualifies. Even if Venerable Orfan is just an expert pilot for now, I believe that her latest defeat has only strengthened her determination to grow stronger."

"I hope you are right, Ves, but... what if you are wrong?"

He shrugged. "Then I have made the wrong bet. Simple as that."

His wife became speechless.

Ves smiled and patted her shoulder. "I will go visit Venerable Orfan right away."

He did just that. Ever since Rosa Orfan received heavy injuries, she received emergency treatment from the Red Association before being transferred to Diandi Base to recover in a more comfortable location.

When Ves entered the Orfan's room, he could see that the expert pilot was engrossed in the footage of the Fist of Defiance's latest smackdown.

"Good afternoon."

"Hey."

Ves moved closer and sat on the chair that was conveniently placed next to the expert pilot's bed.

Her injuries had been rather serious at first, but excellent treatments caused her to look almost completely okay. Her mood was relatively subdued, however.

"How are you doing?"

"...Fine, I guess." The high-tier expert pilot said. "I was close. I almost had it. I ultimately fell short. Jannzi ultimately had to bail me out, and almost got killed in the process. I feel like such a failure."

"Good."

"You think that is good?"

"Failure is a fact of life." Ves said. "Everyone stumbles at times. What matters is that you survived and have an opportunity to do better next time. Besides, I don't think that your failure is your fault. Your Riot simply couldn't keep up that well. He is long overdue an upgrade. It is a failure on our part for not being able to update your battle partner in time."

Venerable Orfan frowned. "You don't have to shift responsibility away from me. I am an adult. I can handle it. I don't blame you for taking so long to upgrade my expert mech. I grew too quickly. We all did. I did not fight as cautiously as I should. I was so eager to break through that I took unnecessary risks."

"Do you feel that you deserved to die back then?" Ves quietly asked.

"..."

He snorted. "Well, it hasn't happened, so there is no use thinking about it. Instead of looking backwards, let's look forward. According to the latest reports, you will recover sooner than we will be able to fix up your Riot. It will still take several months for us to complete the Riot Mark III Project. You will love what we have in store."

Ves began to give her an updated preview of what he intended to make for her. Venerable Orfan was already familiar with many details, but the decision to make use of armor-grade superdimensional matter completely took her by surprise!

"Why do you look so surprised?"

"I don't... I don't deserve this gift." Venerable Orfan said in a depressed tone. "I... am not only a failure, but still an expert pilot. Why don't you upgrade the Dark Zephyr, the First Sword or the Lionheart instead? Tusa and Ark can make much better use of it than I. You don't have to bet that they will break through in the near future because they are already ace pilots."

Ves shook his head in rejection. "Their situations are not so urgent. The Dark Zephyr Mark III primarily relies on evasion, and the situation is not that different with the First Sword. The Lionheart is due for an upgrade a year later or so. I chose to apply superdimensional matter to your machine first because it is the best recipient for it. There are very few mechs that I trust to fight against enemy phase lords head-on. Your Riot is made for these kinds of battles, and your last performance has shown that you possess the grit, courage and will to persevere in the face of great danger and difficulties. Aside from the Bastion, your expert mech relies the most on armor to gain an advantage in combat."

Venerable Rosa Orfan looked flattered. She could feel the sincerity of his words and understood that he genuinely thought that superdimensional matter was a good fit for her and her expert mech.

"Is this... is this really the same stuff that is installed on the Invictus?"

"Not exactly." Ves carefully answered. "The key ingredients are the same, but I am sure that the mechers have developed an alloy that enhances the original superdimensional matter. Even so, you are largely correct. Just make sure you don't allow your Riot Mark III to get bitten by a phase whale. The reason why the Invictus was able to withstand blows of this magnitude has a lot to do with the God Kingdom of the Fist of Defiance. You won't be able to increase the performance of superdimensional armor plating nearly as much as an expert pilot or ace pilot."

"It is more than enough." Venerable Orfan said as a fire began to light in her eyes. She became more and more stoked about what she could pilot once the Design Department completed the Riot Mark III Project. "I feel more and more in debt to you and the clan."

You already reserved a tier 3 Destroyer spear for me, and now you are willing to use up high-grade superdimensional matter for my mech in advance. I would feel incredibly guilty if I still fail to break through."

It sounded a bit unreasonable for Ves to bestow so many benefits to an expert pilot that did not merit this treatment. Did he have ulterior motives, or was he crazy?

"Work hard and stay loyal. That is all I ask of you." Ves tried to reassure her. "My motivation for making the Riot Mark III so good is because I love this mech. I love the concept that I have devised and I truly think it has great potential. While I can say the same for the Amaranto Mark III and the First Sword Mark III, every high-ranking mech has its own charm. Your Riot Mark III happens to be a rare offensive mech that has the potential to clash directly against enemy phase lords. We need this capacity the most, hence why I am willing to invest so much in your machine."

Venerable Orfan looked touched. She truly felt flattered in all of the trust he put in a supposed loser like herself.

Her motivation only burned hotter as a consequence.

"I... will definitely live up to your expectations!" Venerable Orfan vowed. "I have made a decision. I want you to turn the Riot Mark III into a Carmine mech."

That took Ves by surprise. "Are you sure? You should understand the consequences quite well. It is possible for me to convert the Riot Mark III into a Carmine mech, but once I do so, you are bound to this singular machine for the rest of your life."

"The Riot saved me." She said. "I put my trust in him despite how outdated he has become, and he almost died because he stood by me. During that moment of life and death... I understood the importance of standing with your partners. I finally understand where Jannzi is coming from. Just like her, I don't want to pilot any other mech anymore. I want to form a deeper connection with the Riot because I don't think I will ever feel as strong and in tune with any other machine."

"Very well. If you are sure about it, then I will work to fulfill your request. You still have a month of time to reconsider your choice. If you still haven't reversed this decision, then our Design Department will endeavor to design the Riot Mark III as a Carmine mech."

Chapter 6820: Disconnect

When Saint Commander Casella Ingvar arrived at New Constantinople, the Larkinsons assigned to Diandi Base trotted out and formally greeted the powerful ace commander.

The predominantly first-class members of the Premier Branch had never met the famous Saint Commander in person. This was a rare treat to them as they had long admired her command prowess.

It was too bad that Casella Ingvar was in no mood to entertain her fans. Her heart remained with the expeditionary fleet. Only the Larkinsons who had fought side-by-side with her for multiple years earned her recognition and affection.

These other Larkinsons were predominantly strangers. They had never served in the expeditionary fleet. They had never faced the threat of death against human or alien opponents. They lacked understanding of what a true Larkinson was supposed to be. All she saw in these first-class clansmen were soft civilians whose only merit was their superior education and intellect.

Although the Saint Commander knew that she was being a little too unfair towards people who contributed to the Larkinson Clan in their own way, her headspace was not in the right place at the moment.

The expeditionary fleet's withdrawal from the Bortele System still weighed heavily on her mind.

Meanwhile, the news circulating on the galactic net painted a grim picture. The 5th defensive band had become a joke in the Middle and Lower Zones.

There were still plenty of linefighters that tried their best to keep the alien menace at bay, but their advantages dwindled with every push made by the native aliens.

The crush of superior numbers and the oppression of the phase lords left many defenders helpless to hold the line for long.

Even so, the linefighters should have been able to hold out longer. There were many people who expected the 5th defensive band to hold out a lot longer due to the buildup of defensive works.

Unfortunately, the obvious reduction of support from the rear inflicted a heavy blow to morale.

Humans were capable of transcending their mortal limitations so long as they had confidence in themselves.

What happened when their confidence disappeared?

People only needed to look at what was happening at the frontlines to see the result.

The Upper Zones largely managed to hold out. The abundant reinforcements and supplies funneled to the most contested star systems ensured that the first-raters remained relatively safe for the time being.

However, it was hard to find anyone that still maintained a lot of confidence and optimism in the Middle and Lower Zones.

The space peasants all felt abandoned by the bigshots.

Although the vast majority of them had yet to figure out the deeper conspiracy behind red humanity's lack of effort to defend the Middle and Lower Zones, the residents of those places were rapidly becoming disillusioned with the major powers.

The Red Association did not protect them. The Red Fleet did not protect them. The Red Collective was not able to offer that much help, but most people did not mind that they did not expect much from the young superorganization.

The collies even managed to earn a lot of goodwill by lowering the redemption requirements for premium curated cultivation methods.

Although there was a much larger chance that would-be practitioners would fail to get started with these advanced methods, those that did manage to get past this hurdle usually became a lot stronger in a short amount of time!

Was it enough to give them a better chance to survive while stuck on a blockaded planet?

Not really.

Unless these qi cultivators possessed production or support capabilities, all they could do was make it a little more difficult for the aliens to wipe them out. Becoming stronger might not allow them to survive, but it should at least make them feel a little better as they fought against their fate.

In any case, the Red Collective was not strong or influential enough to change the prevailing trend.

It was precisely due to the blatantly unequal treatment afforded to the different zones that the contradiction between first-raters and the so-called 'space peasants' grew so serious.

If red humanity ever managed to survive the ongoing crisis, the two groups would never be able to get along as well as before. The heartless strategies employed by Human High Command had permanently severed the fragile bonds of trust between the upper and lower segments of humanity.

Ves found this to be a sad state of affairs. Red humanity may be on the way to fracturing if it managed to survive the Red War.

It was better than getting exterminated, though.

Due to the ongoing crisis, the Premier Branch did not organize a welcome banquet or other festive occasion. Everyone was too busy with work and no one was in the mood to party.

The Saint Commander did not do much during the first day of her arrival. She largely remained in her guest room and only began to wander around the next day.

"Is it hard for you to fight all of the time?" Andraste looked up to the ace pilot and asked.

"It is not easy, girl, but that is no excuse for mech pilots like myself to shirk our duty." Casella responded with an indulgent smile. "When you take up the life of a soldier, you often do not get to fight on your terms. The native aliens are especially fond of attrition warfare. They will throw phasefighters and warships at us on a repeated basis until we cannot take it anymore. The longer you can endure these assaults, the more people you can protect. That is what motivates us to keep fighting. We never want to give up early because so many civilians are counting on our protection."

"It must have been hard for you and the rest of the expeditionary fleet to retreat."

Casella sighed and softly patted Andraste's head. "We have a duty to protect the people, but also a responsibility to do right by our people. If necessary, we are willing to lay down our lives to protect the Larkinson Clan. That does not mean that we are willing to waste our lives for marginal gains. When you grow up and possibly take charge of your own mech force one day, you should never treat your subordinates as currency to spend on battlefield gains. The soldiers who fight on your behalf are your friends and family. There may be situations where you have to throw them into the thick of battle in order to win a crucial bout, but there are other times when it is better to abandon an unwinnable effort and pull back in order to regroup. That is what we have done."

Andraste attentively nodded as if she was seriously taking notes.

Ves doubted that Andraste would retain much interest in the valuable words of wisdom of a rare ace commander.

He knew enough about his second daughter that she would rather follow Saint Dise's example and focus on developing extreme martial skills. She had developed very little interest in commanding troops.

"I would hate to be in your shoes." Andraste honestly admitted. "I do not think I can bring myself to make these difficult decisions. I didn't know it was so difficult to do the ring thing."

"Truly good people tend to die early in the Red Ocean." Casella whispered while frowning. "Those that have a higher chance to survive tend to be selfish."

"That sucks."

"That is reality for you, Andraste. It is not a bad idea for you to settle for developing your martial skills. As long as you have trustworthy people by your side who can do the thinking, you should have little to worry about. If you become strong enough to kill enemy champions, then you will always be valued by others."

"That sounds like Saint Dise. She is really strong. I am really looking forward to seeing her next swordsman mech."

"That day will come pretty soon if everything goes smoothly."

While the Saint Commander and Andraste continued to chat while sitting on a bench located in a small green park, Ves gradually approached.

"Hello Casella. As for you, aren't you supposed to do your homework, young lady?"

Andraste petulantly huffed. "Homework is boring. I can do that later. I wanted to talk to the Saint Commander first! I am learning valuable lessons about piloting mechs and how to survive on the battlefield."

"I applaud your enthusiasm, but it is too soon for you to immerse yourself in this stuff. Run along now. Your mother will be angry if you haven't done your homework by the time she returns home."

The mention of her mother was enough for Andraste to take her homework more seriously. She jumped off the bench and turned towards the Saint Commander.

"I have to go now. Can I talk to you again? I really want to hear more about what you've learned on the battlefield."

"You can seek me anytime I am not preoccupied with serious matters." Casella responded. "I should be available until the end of my stay in this facility."

"Okay. I will see you tomorrow, then!"

As Andraste scampered off, Ves took the place where she previously sat and made himself comfortable.

"So. Thoughts?"

"It's too peaceful here." The Saint Commander mentioned the first overarching thought in her mind. "I still cannot believe it. Everything gives me the illusion that the Red War will never touch this star system. While I haven't visited the nearby city or anything, if the clansmen and other groups in this base are representative of all of the first-raters, then I think they are in for a rude awakening. "

Ves did not refute her argument. "I think so as well. It is rather frustrating to see that many Terran locals are still stuck in a pre-war mindset. The war has not sunk into their minds as of yet. The true leaders and soldiers of the Terran Alliance are certainly aware of the brutal fights being waged across the frontlines, but it is hard to impose stricter measures."

Saint Commander Casella scowled. "Martial law is a complete joke here. The readiness of the troops of the Premier Branch is too low."

"The servicemen that we have recruited in order to staff our upcoming first-class fleet are predominantly young and inexperienced first-raters. Their theoretical knowledge is impressive, and their skills when operating standard mechs and equipment are also great. However, it is not easy for us to send them to the frontlines, so they have yet to get blooded."

The Saint Commander looked around. She could easily spot the top half of the mechs walking around inside the base.

Many of them belonged to the mechters who were assigned to the Bluejay Fleet.

Only a handful of the mechs consisted of training mechs that were being piloted by first-class mech pilots recruited into the clan.

Casella clearly did not look impressed. "Are these supposed to be my new colleagues and allies?"

"Not entirely." Ves responded. "There are still major vacancies, especially when it comes to mech pilots. Tell you what. If you don't like the first-raters that I have recruited, you can take charge of it yourself. You will need to keep yourself busy somehow, so what better way to make yourself useful by screening applications and interviewing promising talents? This way, our first-class fleet will be staffed by enough first-raters that you have approved that you should be able to place your trust in them. It is better than leaving this job to less qualified or knowledgeable personnel."

It did not take long for Casella to accept this offer.

"I would very much like to be in charge of recruiting, but only for as long as my Minerva still needs an upgrade. Once you have finished this job, duty will take me elsewhere."

"That's okay." Ves smiled. "You should focus your time on recruiting more mech pilots. You understand them better than the rest of us. Perhaps you may even find a special talent that can become much more special when affected by your Enfeoffment ability."