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Illustration by Matsumoto Noriyuki

Design by Shindosha

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The first day of the 1258th Gaiapolis Graduation Exercise ended with the defensive training fleet "Blue" attacking the supply fleet of the attacking fleet "Red" taking control of most of the supply fleet and capturing two of "Red's" aircraft carriers, a great success.

However, the exercise was supposed to be a three-day fleet battle. The attacking fleet "Red" lost most of its supply fleet, but four of the eight accompanying large aircraft carriers managed to escape from "Blue's" guerrilla fleet, and two of them were boarded by an amphibious assault ship and fought off the attack in hand-to-hand combat. The moderate damage meant that they could not immediately return to the front line, but 70% of the carrier's functions remained, and they were deemed to have sustained damage to the extent that they could perform supply duties in the rear.

Although it was a great success for the defending fleet "Blue", the headquarters of both "Red" and "Blue" judged that the impact on the fleet battle would not be that great.

About 10% of the carrier-based aircraft that had been dispatched were shot down or judged to be heavily damaged and left the battlefield, while the remaining aircraft were taken aboard the Minosdelova-class large aircraft carrier, with one still intact and one moderately damaged.

Fleet "Red" would be short of supplies from now on, but with only two days left in the exercise, this would not have a significant impact. Also, even though two carriers had left the battlefield, it was calculated that the resulting loss in combat power would be less than 20%.

On the other hand, fleet "Blue", which had achieved great results, had suffered damage from the guerrilla fleet, which was supposed to be a reserve force.

Successfully taking control of a supply fleet would be a great achievement in real combat, but in a time-limited exercise, this has little effect. As a bonus, the guerrilla fleet was allowed to resupply from the supply fleet it had captured, but even this would only have a small effect on restoring combat power in a short-term battle.

"But it's going to have a big impact on the morale of the Red Team cadets."

Hyakume compares the combat information of a large aircraft carrier that was finally subdued by two amphibious assault ships, and an aircraft carrier that successfully eliminated the one amphibious assault ship that was attached to it.

"If we win this much in the initial battle, optimism will spread in the field and at the headquarters."

Schnitzer is busy checking the overall movements of the "Red" and "Blue" fleets.

"But the instructors at the military academy are all veterans, more experienced than the Third Fleet. They should be able to do a good job of keeping the restless cadets in line."

"So, what will the guerrilla forces do from tomorrow onwards?"

Hyakume checks the current situation of Grunwald 59, which had landed on one of the two aircraft carriers that were successfully subdued.

"In a real battle, it would take two to three days to deal with combat and supplies, but that's not possible in a time-limited exercise. The guerrilla fleet, having successfully completed its assault on the supply fleet and its mission, will be reorganized tonight, and starting tomorrow, it will begin a mission to pursue the vanguard of the Red fleet from the rear."

"Well, this is just a scenario, so it doesn't look like there will be much use for the amphibious assault ships, but if the initial battle is this chaotic, who knows how the actual fleet battle will turn out."

"We can no longer expect a proper fleet battle as per the scenario," Schnitzer said.

"What do you mean?"

"If we assume that the purpose of the exercise is to control the exercise in a way that deviates from the scenario and leads to battles that would not normally take place, then there is no need to conduct fleet battles that will produce results as simulated."

"If we can control the exercise to the point where an amphibious assault ship attacks an aircraft carrier in the first battle, then there is no need to conduct a proper fleet battle in an exercise to confirm the results, is that what you're saying?"

Hyakume glances at Schnitzer.

"But with all these highly motivated fleet forces assembled, what in the world are we supposed to have them do if it's not a proper fleet battle?"

"I don't know."

Schnitzer simply shook his head.

"All sorts of patterns of fleet battles have been fought throughout history. If you take simulations into account, there is no form of fleet battle that has not been tried before. With both the enemy and allies being of equal strength, I have no idea what else they can do to achieve results that simulations could not, or what results they are trying to achieve by controlling the upcoming exercises."

"Luca said, you were just having fun."

Coorie muttered.

"...I wonder if that's actually the right answer."

"So, you still don't know the identity of the freshman who teamed up with our captain and won the special prize for taking control of an aircraft carrier?"

"If it was just a passing data, it would come up right away, but is it really true? I looked into the pasts of both our captain and Chiaki, and all I could find was that they were members of the high school yacht club, so I've blocked out any data that would suggest they were pirates and had a track record, so that's something anyone could do if they wanted to."

"Hey, hey."

Hyakume spoke up while working.

"Is the electronic warfare officer on the great Bentenmaru stuck in a place like that?"

"If you do something suspicious, the lookouts might find you out."

Coorie answered without stopping what he was doing.

"Both our captain and Chiaki-chan are set up to send out an alert if someone starts an intrusive investigation. If this girl, or someone else sent her, they should be at least as cautious as the intelligence department."

"I see, that makes sense. So that makes them another target for surveillance?"

"That's right. Just because our communications network might be monitored, we've stopped our regular communications with the captain and Chiaki-chan, so they might be doing the same."

"It's a trap, right?"

Marika looked around the guest cabin, vigilantly, decorated with luxury furnishings.

"It's obviously a trap."

Chiaki was also busy reading the sensor he had taken out of his work clothes.

"Is it a trap?"

Looking around curiously, Kiara entered the guest cabin. Artificial gravity had returned to the interior of the Minosdelova-class large aircraft carrier Myradodo, which had switched from combat mode to normal mode, and the soft, luxurious carpet elegantly supported her feet as soon as she stepped inside.

"Wow, as expected of a guest cabin, it feels so different when you walk in!!"

Kiara shouted and stepped into a room that felt more like the top floor of a luxury hotel than the inside of a ship. The footprints left on the carpet softly disappeared.

"How's it going?"

Marika, who followed Kiara into the cabin, asked Chiaki behind her. Chiaki closed the card sensor with one hand and put it back in the pocket of her work clothes.

"There's no surveillance that would trigger a check. But this is a cabin reserved for upper-class guests on a fleet aircraft carrier, where we don't know who will be aboard. Of course there's a surveillance system."

"That's true, but I wonder who is monitoring the specific members of the cadets who came aboard in the midst of all this commotion?"

"We can just leave the surveillance to the computer. If they say anything that needs to be marked, we can just check it later."

"I'll open the window."

Kiara ran up to a large wall that was painted with a colorful landscape of a sandy beach on some resort planet and touched her hand. She touched it a few times to change the pattern on the wall to wallpaper or classical paintings, then projected the outside scenery.

The Minosdelova-class large aircraft carrier is surrounded by a flight deck on its periphery, and there are no rooms with windows except for the command post (island) on the flight deck and special spaces for observation purposes. The scenery projected on the windows can be viewed in any direction using cameras installed in various parts of the ship.

Kiara changed the scenery on the wall several times. It showed the outside view of the Myradodo, with the defensive ``Blue'' training fleet in formation around the captured ``Red'' attacking aircraft carrier of the same type.

``I guess it's something like this.''

Kiara took a few steps back and looked around the outside view, then nodded in satisfaction.

In a normal fleet battle, the treatment of captured enemy ships varies depending on the situation. If the capture was the result of hand-to-hand combat, as in this scenario, the interior of the ship would usually be badly damaged and the ship would be unable to function as it was.

In the case of exercises, the participating ships and personnel are hit and damaged by virtual bullets, so even if they are judged to be heavily damaged, sunk, exploded, or destroyed, everything will survive intact.

So, how are ships, equipment, and facilities captured by the enemy dealt with during the exercise?

It is rare for an entire legion to be taken prisoner during an exercise, or for a ship to be successfully captured or seized. However, the history of the Imperial Fleet is longer than that of most star system civilizations, and exercises have been conducted far more frequently than actual battles fought inside and outside the vast territory of the Empire.

Due to the long history of the Galactic Empire's fleet, the treatment of ships captured or seized during exercises has traditionally been determined.

The captured ships and legions must entertain the winners with all of their provisions and strength.

Specifically, the two captured Minosdelova-class aircraft carriers must entertain with all their might the entire crew of the training fleet reserve force, which is centered around the amphibious assault ships.

It is not uncommon for ships belonging to a training fleet made up of officer cadets to be defeated by the battle-hardened Numbers Fleet, with their food warehouses and stores being emptied and ransacked.

However, there are only a few cases of Numbers Fleet ships being overrun by officer cadets from the training fleet who have not yet been officially awarded ranks. Graduation exercises have been held more than a thousand times in Gaiapolis alone, and nearly 10,000 times if other school districts are included.

The total number of battles, including small-scale ones, is astronomical, and there are countless examples of the cadets, who are supposed to be at a disadvantage, achieving miraculous victories over active fleets that are supposed to be superior.

The exercises are conducted in the same way as real battles. If that is the case, rewards and punishments must be given accordingly.

When the training fleet succeeds in capturing a vessel from the regular fleet, the cadets who have achieved outstanding results are invited to the captain's cabin or the best guest cabin of the captured vessel.

In a normal exercise, even if the captain's cabin or guest cabin is provided and they have the authority to use it, they have no time to relax. However, in a situation like this, unlike the half-side rest where they wait equipped on the training vessel, they can relax until the next day in facilities comparable to those of a first-class hotel.

From the amphibious assault ship Grunwald 59, which succeeded in capturing the large aircraft carrier Myradodo, the three powered suit cadets who were the first to lock the central computer and declare domination, as well as other powered suit operators who had achieved outstanding results, and the helmsman who successfully landed on the aircraft carrier, which is not even practiced, were given the honor of using the guest cabin.

"Well, I don't know if it's our instructors or the ship's security that are watching, but we're definitely being watched."

Kiara looked around the guest cabin in the adjoining room, which had a separate bedroom, with a curious look on her face.

"But technically, this is a ship that we captured, and we have control over it, so I think the surveillance is lax."

"Is this the training fleet? The instructors? Or the cadets?"

Kiara raised one hand and leaned against the wall to answer Chiaki's question.

"Maybe the instructors. But, we captured an aircraft carrier that was much bigger than Grunwald, so I think the surveillance is laxer than on the mother ship, right here?"

Kiara opened the door to the adjoining room. The door was as thick as the one leading to the outside.

"There it is!"

"What?"

"The guest cabin communications system."

Kiara then opened a thick door with an elegantly decorated glass window. Inside was a small room with the latest electronic equipment functionally arranged, a little different from the luxuriously furnished luxury cabins.

"I thought that this class would be equipped with a high-end system that would allow communication with anywhere on the ship without any restrictions."

Kiara quickly slipped into the seat provided and flipped on the switches one by one, checking them. One by one, the numerous displays lit up.

"Wow, as expected, it's idling so it's ready to use. Umm, I wonder what kind of restrictions it has."

"Are you planning on making long-distance calls with your Numbers Fleet?"

Chiaki peered into the communications room through the open door.

"Hmm? No, that's not it, I was just thinking that if we did it right, we could monitor the Third Fleet's command and communications network from here."

Chiaki exchanged looks with Marika, who was peering into the communications room from next to her.

"If we captured a ship, we would have had to surrender the captain's quarters and the bridge. A sensible operator would have locked the central computer before the surrender and destroyed or erased any classified information, but we should have cut off all circuits and shut down the central computer before that happened, so all the information should be safe."

Kiara started up the communication system and tapped on the control panel.

"Oh, just as I expected, this is a guest cabin. Even for a guest, the permissions have been set generously. You can do anything, long-distance communication, searches, anything you want."

"Hey."

Chiaki called out to Kiara, who seemed to be going through the procedure smoothly.

"Are you planning on infiltrating the Third Fleet's command communication network from here?"

"Not at all infiltrating, I just thought it would be useful to monitor the latest situation."

Kiara stopped tapping on the control panel.

"Also, if it's a large aircraft carrier of the Red Fleet, which is our hypothetical enemy, surely there should be all of the scenarios for the Red side of this exercise?"

Chiaki and Marika exchanged looks of surprise.

"You gather information as soon as you enter the VIP cabin?"

Marika looked at the information displayed on the display, which was switching one after another.

"You're very diligent, aren't you?"

"I'm a worrier."

Kiara didn't stop manipulating the communication system.

"I grew up in a remote area, where there was always war somewhere, so if I neglect to gather information, I get anxious."

While moving her hands, Kiara glanced at the two people behind the seat.

"You guys are pretty cautious, scanning the VIP cabin as if it were a trap, even though you came across it first, don't you think?"

"I'm a cheapskate."

Chiaki answered with a dejected look on her face. After waiting for a while to continue, Kiara said.

"You're an experienced person, aren't you?"

"... What?"

Chiaki carefully asked Kiara, who continued tapping on the control panel. Kiara answered simply.

"In actual combat."

Glancing at Marika, Chiaki turned her eyes back to Kiara.

"Why do you think so?"

"You'll understand if we move together. Even though it's just a training exercise, it's probably your first time in an actual combat suit, but your speed of judgment is extraordinary. Our powered suit class is full of candidates with at least spacewalking experience, and many other experiences."

"Well, I thought that might be the case."

"You grew up in a place where there's always war."

Marika took over the conversation.

"Where on the frontier?"

"On the outside of Perseus' arm."

Kiara's finger movements were slowing down.

"You are?"

"Orion, Cetus."

"The star rise, right? The one with feet on the ground."

"You're a Traveler?"

Marika asked carefully.

"You're right."

Those who don't live on a specific planet, but spend their whole lives flying around on spaceships, are called by various names. They range in size and type from those with personal circumstances to those who have lost their home planet. Kiara stopped her hand.

"That's weird, it's too easy no matter how you look at it. I wonder if it's a trap to be able to get into the ship's main network so easily."

"Have you gone that far already!?"

Marika spoke up.

"But even though it's a guest cabin communication system, it's not equipment for ship operators, so how could you get there so easily!?"

"Because it's a guest cabin communication system, it's designed to avoid surveillance on the ship and set up a line for VIPs."

Kiara moved control to the remaining displays and began checking the surroundings, keeping the line that had penetrated deep into the backbone network fixed in front of her.

"It's not uncommon for ruling classes such as the heads of star systems' governments or royal families to board ships of this class, so they're pretty well-organized in that regard. If they accidentally get caught eavesdropping, it could become a diplomatic issue."

"But aren't the security settings of the communication lines and the combat information network inside this ship completely different in terms of their existence basis!?"

"That's why I thought it would be a bit more difficult. Even if they're set up to be captured, I don't think that an active ship of the Numbers Fleet would go easy on a candidate."

"Maybe it's a bonus point?"

Chiaki tries to read the information displayed on the screen.

"Of the two Minosdelova-class ships we managed to capture, ours was the only one that had its central computer destroyed. If we followed the procedure when we captured it, we'll reboot it under our control, so it should be easy to investigate afterwards, right?"

"Well, if we capture an enemy ship in real combat, the basic rule is to have a dedicated electronic warfare team open up the central computer and extract as much classified information as possible."

Kiara began tapping slowly on the control panel.

"Even if it's a training exercise simulating real combat, they don't think about how to use it after it's actually captured, and there's usually no benefit to extracting classified information from friendly forces, but even so, this is too sloppy."

"What if this is a trap?"

Marika asked, looking around.

"What's the worst case scenario?"

"We get tracked down and the instructor gets mad at us for not messing around?"

Kiara started tapping the control panel at the same tempo as before. Marika asked again.

"The attacking side's exercise scenario is basically the operation plan for the future, right? If we successfully extract the operation manual, what will we do next?"

"Of course, we'll send it to our headquarters with a gift tag. If it's a graduation exercise, the escort fleet of the supply convoy in the rear should have all the operation plans for the red side. If we know all the enemy's plans and plans, we can turn around the graduation exercise, which is currently likely to be defeated by the number of moves, right?"

"Even if we succeed in extracting the exercise scenario, is that all you're thinking about?"

Marika asked again.

"Now that you have the scenario, you'll probably want to look into it, won't you?"

"Well, of course, that's a perk."

Kiara looked around the communication system in front of her with a look of ecstasy on her face.

"You can use this high-end system directly connected to the central computer as much as you want. Tomorrow and the day after tomorrow, there will be a fleet battle between the main forces near Gaiapolis, so there may not be much we can do in the rear, but I think we'll have a lot of fun."

"If that sounds fun to you, then you're definitely suited for this."

A light, unfamiliar bell rang in the guest cabin. Marika exchanged glances with Chiaki, who was peering into the communications room next to her.

"What's that?"

"Maybe it's the doorbell?"

She had just entered the room, and didn't yet know how to use all the equipment. Chiaki turned around and headed for the entrance door.

"I'll take a look."

"I'll close it."

Leaving the work to Kiara, Marika put her hand on the door to the communications room.

"I'll call out if I need to."

"Thanks."

Kiara replied without even looking back. Marika closed the door to the communications room.

"You're free until tomorrow morning, right?"

Chiaki, who was ahead of her, put her hand on the intercom next to the door. Marika nodded.

"The reward also includes occupancy of the first-class cabin for the night."

"Who's that? Yes, it's Cadet Chiaki Kurihara."

Seeing the visitor on the monitor, Chiaki let out a strange voice.

"*Room service.*"

A sullen-looking technical officer was on the monitor. Marika took a double look at the monitor.

A cartoon of a person

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"I didn't ask you to."

After replying, she pressed the unlock button for the automatic door.

Behind the open door, Luca, wearing the uniform of a civilian engineering officer aboard the Myradodo, stood with a tool cart.

"... Shall I enter?"

After making sure that it was none other than Luca, Marika poked her head out the door and surveyed the hallway of the guest cabin floor. There was no one else to be seen in the hallway, which felt more like a luxury cruise liner than a warship.

"Please."

Luca answered in the same voice as she remembered.

"Come in."

Marika invited Luca into the guest cabin. Luca, wearing an engineering officer's uniform, entered the room pushing a tool cart.

"There's one more person, Kiara, who crashed the central computer with us, but she's currently busy in the communications room."

Marika closed the door after seeing Luca enter the room.

"Um..."

"It's real."

Luca took out her ID from inside his uniform and showed it to Marika. It was a privateer crew ID issued by the Sea of the Morningstar government.

"Um..."

Before Marika could ask her next question, Luca opened the toolbox on top of the tool cart and displayed a 3D display.

"My position on Myradodo is a maintenance service technician seconded from a manufacturer. I checked before boarding, and there were no insects on board after boarding."

"So you're saying there's no need to worry about surveillance or wiretapping?"

Chiaki looked around the luxuriously furnished guest cabin once again.

"That's right. The Third Fleet has been very kind to me, which has been a great help."

"Well, then."

Marika glanced at the closed door to the communications room. She didn't know when Kiara would come out.

"What are you here for?"

"I'm here to contact you."

Luca checked the 3D display and answered while searching for any radio waves that might be flying into the room with other sensors just to be sure.

"It's a situation as you know. If we use a communications line in any way, we can't deny the possibility of it being intercepted. Hyakume and Cooriu agree that it would be safer and more reliable to come and meet you here in person, even if it means sending personnel from Gaiapolis."

"Contact me, huh?"

I could make regular contact from the dormitory in Gaiapolis, but I couldn't make personal contact during training exercises where we were constantly moving around on a landing ship in operation. Even in such a situation, there are many ways to contact the outside world, but regular contact is not being made because it should be possible to monitor Marika and Chiaki's situation from Bentenmaru, which has infiltrated the command communication network.

"So that means we have to go out of our way to Gaiapolis and board the enemy fleet's aircraft carrier during the exercise to contact them?"

Marika looked at the communications room door, which was still closed.

"Is there anything I can ask you here?"

"We haven't yet found out the true identity of Cadet Kiara Feish."

Luca also looked at the communications room door.

"There are genetic analysis data for Travelers from the borderlands outside the Empire, and even if it's all true, we haven't yet been able to find out how much of it is true, or if there's something behind it. It depends on the extent, but if a professional is seriously faking it, you can't be sure that we'll be able to find out during this graduation exercise period."

"How professional are you?"

"For example, we're backed by the Imperial Fleet Intelligence Department."

Luca said nonchalantly.

"Our sponsor this time will probably do the best professional work we can in this universe. Even if they were to intentionally create an opening to trap us, the Intelligence Department would do the best job possible."

"Well, the equipment, personnel, budget, and technology are all very different from those of a country pirate."

"It's not uncommon for candidates to have their data altered, and it's not just us."

"Really?"

"The military academy is a top educational institution on par with the Space University. We were even talking about the possibility of entering there. So, any school or cram school will at least try to give you some extra information on the required data. However, once the candidates are in the final exam, they will be subject to a strict background check by the Numbers Fleet in charge of the area, so any inflated grades or rewriting of behavior will be exposed. In other words, the candidates here are being investigated to that extent."

"If she hasn't been caught yet, does that mean we can trust her background?"

"I don't know."

Luca shook his head frankly.

"Whether the records are trustworthy, whether the person is trustworthy, and whether there is some other purpose are all separate issues."

"You're still investigating, then?"

Marika nodded.

"So, what are we going to do?"

"It's a matter of judging the level of danger."

Luca said in his usual tone.

"It's a secret mission that the intelligence department is working on, so increasing the number of people involved is out of the question, but even so, if we talk outside there's a higher chance of being eavesdropped on than inside the ship."

"You mean it's less trouble to keep talking here?"

Chiaki looked around the passenger cabin with a vigilant look on her face.

"What would we explain if she showed up in the middle of our conversation?"

"At least, for now there doesn't seem to be any need to worry about that."

Luca ran his eyes over the geometric patterns on the 3D display, which were changing rapidly.

"That's quite a lot of usage. If you keep operating it with this much momentum, you won't come out of the communication room for a while."

Luca also looked at the closed door of the communication room.

"That's quite a lot of communication. What are you doing?"

"Because the VIP room's communication system is given preferential treatment, you've infiltrated this ship's combat information system and are searching for the exercise scenario."

Marika summed up Kiara's actions with ease.

"That's the natural duty of a crew member who boards a captured ship."

"Excellent."

Luca looked at the closed door of the communication room with a slightly surprised look on his face.

"Okay. Let's get this over with quickly. Thanks to this graduation exercise, we've been able to see the outline of the hypothetical enemy."

"Really!?"

Chiaki leaned forward.

"Did you figure out where the rescue ghosts are coming from?"

"First of all, that's where it is."

Luca nodded.

"The Intelligence Department is desperately trying to grab hold of the virtual enemy that the helpful ghost is sending out, but it seems to be at a much higher level than initially thought."

"A higher level?"

Marika asked again.

"Isn't it the fleet's command communication network?"

"It's a command communication network under the direct control of each fleet headquarters."

Luca answered smoothly.

"Not all information flowing through the command communication network is of the same level. Important reports, orders, and operational orders that require a high level of secrecy are heavily encrypted and take a lot of effort to decrypt, while information that is not that important is sent with a code strength that allows it to be decrypted quickly. The same command communication network can be used at a different level in the central headquarters and in the Numbers Fleet on the outskirts."

"You mean a level even higher than the command communication network?"

Marika spoke up. The devilish smiles of Hyakume and Coorie came to mind.

"Well, I'm sure our staff is very happy."

"They're doing their best to commit crimes."

Luca readily admitted.

"Pirates backed by the intelligence department are a real nuisance to the regular army. In that sense, this job is a perfect calling. Well, it's only a matter of time before they get tired of it."

"It's only a matter of time, though, and if they do get tired of it, they'll probably just cut corners."

"An advanced communications network is just that much more difficult to use."

Luca went back to the topic.

"When it becomes more difficult to use, it means there are more opportunities to exploit and be exploited. We've already found a group of unscrupulous volunteers within the Joint Staff Headquarters, the Numerical Strategy Research group, who are gambling not only on the results of exercises but also on the results of actual battles in remote areas."

"Oh dear."

Marika's face clouded over, thinking, "Here we go again."

"Well, when we get serious about our work, sometimes we end up digging up areas that don't need digging."

"But this time, it seemed like the client (sponsor) was expecting that too."

Luca continued, looking at the 3D display of communication status and the door to the communications room.

"The true identity of the hypothetical enemy is still unknown. But it seems that they have the highest level of authority and are even tampering with battle information that should be unprocessable."

"Um," Marika thought for a moment before asking a question.

"What do you mean by combat information that is supposed to be unprocessable?"

"In principle, information shared on the ground or in the chain of command during a battle is sent as is. If the observer's subjective opinion gets involved, the information becomes distorted, and so does the analysis and judgment based on it. Therefore, in principle, combat information such as allied positions and preparation status, and as far as observable enemy positions and situations are sent as is without any unnecessary processing. If the enemy takes over the network and sends out false information, then they can do as they please, but that's a different story. Even in a full-scale exercise like this one, the combat information of both sides is kept strictly secret, and it is not in a situation where it can be easily processed. If one side were to set up a thorough operation and succeed in taking over the enemy's network, they could do as they please, but at this stage, that is not the case."

"And it's being processed?"

Chiaki muttered with a grim face.

"Who and how did they process combat information that is supposed to be unprocessable?"

"Who is still a mystery at the moment, but we have a good idea of ​​how. The judges can touch the combat information of both the "red" and "blue" participants in the exercise as much as they want. The information is not only shared on-site but also uploaded to the command communication network, so anyone with the right authority can process it."

"But is it really that easy to process information traveling through a FTL line?"

Marika asked a common question. Luca nodded.

"It seems possible as long as you have the authority, the right equipment, that is, the highest quality tools, and a clear policy. Information flows through the network at FTL speed, and it's the computers that suggest the optimal tactics based on that information."

"So combat information can be processed at will..."

Marika took a breath and then said.

"The situation is assessed based on that information and the optimal tactics are selected, so that doesn't mean you can control the progress of the battle as you like."

"Exactly."

Luca nodded as if it were obvious.

"It's easier and more reliable to control the battle than using roundabout methods like a helpful ghost. If the imaginary enemy's goal is to control the war to their own advantage, then that goal should already be considered accomplished."

"But, you know, can you really control an actual battle just by messing with the battle information? A real battle situation is full of chance, confusion, and unpredictable events, so isn't it difficult to control even in an exercise?"

"I think we can do this much because it's an exercise."

Luca answered.

"If this were a real war, it would be difficult to control the war no matter how well you understood the Empire's command and communication network. After all, there is an enemy. What if you could understand the enemy's command and communication network and freely control the battle information of both sides?"

Luca checked Marika and Chiaki's expressions.

"If a force can grasp both enemies and allies to that extent, it's practically like they control both, so I don't think there's any need to go to the trouble of going to war, which is troublesome, accidental, and risky."

"Because this is an exercise, both 'Blue' and 'Red' can refer to each other's operational scenarios and process the battle information of both sides, so does that mean they can control the battle itself?"

"Battle information is monitored by all chains of command, including the field. If they make any obvious changes to the information, it will be immediately obvious that the network has been hacked. So even if they process battle information, they can't do it on a large scale. To control the battle situation by accumulating changes that are only margin of error, it is necessary to fully understand the situation of both enemies and allies. I think that an exercise is a good place to experiment with battle control like that."

Marika dropped her head and sighed.

"So, this time, the amphibious assault ship that was supposed to be waiting in the rear ended up in an unprecedented situation of hand-to-hand combat with an aircraft carrier, and the military academy side succeeded in capturing an active aircraft carrier of the Numbers Fleet, because there was a hypothetical enemy that had been set up that way?"

"Of course, we can't be sure until we grab the enemy by the neck, but yes, that's what I think."

Marika and Chiaki exchanged glances. This time, they both sighed.

"What's wrong?"

Marika pointed to the closed door to the communications room for Luca.

"The cadets who were working diligently inside there told me pretty much the same prediction before this operation."

Luca looked at the communications room with a slightly surprised look on his face. "You came to that conclusion on your own, without any help or prior information? That makes you a very promising candidate."

"To be precise, I was just told that I was analyzing the discrepancy between the scenarios and the actual results of recent exercises, and that the recent scenarios have been bringing about more and more unexpected situations, so that might happen this time as well."

"Even if it was a fluke, it's still quite impressive."

Luca nodded.

"If you think that the hypothetical enemy is just doing this kind of thing for fun, it makes sense this time."

"And?"

Marika turned back to Luca.

"What's the plan going forward?"

"From tomorrow onwards, there will be a fleet battle between the main forces of 'Red' and 'Blue'. If the first battle went so haphazardly, I expect the fleet battle to be no good either. Naturally, there will be mountains of battle information flying around, so we'll have to carefully determine how much of that information has been altered, and how and from where they are interfering with the command and communication network."

"They're struggling again."

"They've brought the Bentenmaru down to the ground and are using all the top-class equipment they can, and the rest will be handled with the skills of a master craftsman and the magic of a conman."

"Yes, yes."

"Please consider me a service representative for a private company."

Luca glanced at the door to the communications room.

"It'll come out soon."

"Huh?"

"The amount of control and the flow of information have dropped drastically. If you haven't given up, I will interpret this as you've secured the item you were after."

Luca slammed the tool cart to turn off the 3D display. Chiaki asked.

"Can't you tell where you are and what you're looking at?"

"It's an instructor's monitor, after all. If you go that far with the default settings, the other person will notice that there's a bug. You could try changing the settings and see how far you can go, but it would be quicker to just ask him."

"We got it!"

A cheer rang out as the communications room opened. Kiara came out brandishing a data card.

"Look, this is probably the 'red' team's operation scenario, huh?"

Noticing Luca, Kiara straightened her back and stood at attention.

"Cadet Kiara Feish!"

"Make yourself at home, Cadet Kiara Feish."

Luca replied with a sales smile that almost made Marika and Chiaki look twice.

"This is the guest cabin of the captured ship that you cadets won through your own efforts. I'm a civilian aboard the Myradodo, in charge of service for General Opticalix, so make yourself at home."

Luca bowed and then dramatically opened the wagon.

"The electronics service staff on board the Myradodo brought a gift for the cadet who received the special prize for this exercise."

"Ohhh!!"

The three girls exclaimed. The top shelf was filled with colorful fresh sweets and fruit, the middle shelf was filled with high-quality sweets just by looking at the boxes, and the bottom shelf was filled with colorful drink bottles and pots in a cooler box.

"Since you are all underage and still in the middle of your graduation exercises, I'm sorry to say that there will be no alcohol, drugs, or intoxicants. We have also received tacit approval from the military academy instructors, so please don't worry."

Luca looked around at the cadets and smiled again.

"Then, please enjoy yourselves."

Luca picked up the tool case from the top shelf of the cart, bowed, and left the room.

Marika and Chiaki, who had returned the bow and seen them off, looked at each other and suddenly realized something.

"Ah, should I catch some bugs?"

"If the manufacturer really tried to trap bugs, I don't think we amateurs would be able to keep up."

Chiaki took out a sensor from inside his work clothes.

"But, I guess it's a courtesy thing to do."

"Yeah. So, wait a minute."

Kiara was about to jump on the cart piled high with sweets and drinks, so Marika held her back and turned on the sensor she had taken out of her pocket.

"If the bugs stay on, all our conversations will be overheard."

"But, but..."

"Wiretabbing room service is a classic tactic, so I think it's okay to offer a complimentary gift, but, um, would you like me to check this?"

Marika picked up the gift card that was left on top of the cart and handed it to Kiara.

"I think if we check, we can at least confirm whether it's genuine or not."

"You mean the person we just got is not a manufacturer's service, but a fake from somewhere!?"

"As a new cadet, I think it's better to consider that possibility and deal with it. There's been a story about a fake instructor bringing in rations to a squad that has achieved great things, and then everyone ate them without checking and then passed out."

"Ahhhh."

Kiara let out a cry of despair.

"That's right, Instructor Parker told me not to forget that even if we get into a passenger cabin, we're in the middle of graduation exercises."

Kiara looked over the colorfully decorated wagon from top to bottom again.

"Do we need to analyze the ingredients?"

"It'd be a good idea to at least scan it with the sensor we have."

Chiaki switched the sensor from electronic to optical analysis.

"If there are no abnormalities, we can test it for poison."

"Oh well, we still need to do human experiments no matter what."

Kiara turned over the card printed in old-fashioned decorative letters. It was just a thin card with no electronic mechanisms.

"Okay, I'll check it. But if the list of people seconded from the manufacturer has been tampered with, isn't that the end?"

"If it's a test for candidates, I think they'll pass if they check that much and there are no inconsistencies."

Marika scanned the entire wagon one last time.

"Yes, bug catching complete. Did you get the operation scenario?"

"Yes!"

Kiara happily held up the data card.

"Wait a moment, I'll check the names on the greeting card you brought."

The check using the passenger cabin's communication system was easily completed. The list of recipients on the card matched the names of the Myradodo crew members in General Opticalix's Third Fleet service division.

Even after checking with the standard sensors and scanners, no harmful substances were found in the sweets, fruit, and drinks that were brought in.

Marika and Chiaki were listening to Kiara's explanation in the communications room with the door wide open, while each opening different kinds of sweets and fruit under the pretext of tasting them for poison.

"The format is right, isn't it?"

Marika was scrolling through the operational instructions on the sub-display.

"It matches the battle situation so far, and it also matches the position of the 'red' that we have here and the operational plan that can be inferred from that."

"Really?"

Chiaki asked, unable to figure out the operational plan just by skimming through it. Marika nodded.

"Generally, you can't have an all-out battle between large fleets unless it's a graduation exercise. If the scale, layout, and even the battle airspace are all decided from the beginning, it's not easy to come up with a strategy that will surprise the enemy, and considering the original purpose of graduation exercises, they want the trainees to experience the classic fleet battle."

Marika scrolled the display quickly and carelessly.

"This operation plan is completely faithful to the basics and is textbook-like. It's not original and not interesting. That's why I think it's the real thing."

"Yay."

Kiara clapped her hands happily.

"Do you think Red will change their operation in the future, considering the possibility that the operation scenario was leaked from a captured allied ship?"

"I don't think they will."

Marika tilted her head as she answered.

"It's just a basic tactic that sticks to the basics, so there's nothing unexpected or urgent about it. It's probably not that different from what our headquarters is predicting Red's operations."

"So that means it's worth reporting to headquarters."

Kiara's hand, having switched the communications system back to its original purpose, stopped.

"Which line should I use?"

"Eh?"

"Well, even though it was captured, it's still an aircraft carrier belonging to the Third Fleet. If they were in a real exercise, they would be listening carefully to the communication lines from here, not only the 'blue' but also the captured 'red'. They would be paying particular attention to what kind of information would come out of the captured ship."

"Yeah, well, if you get important information during a battle, you have to think about the transmission route."

Marika ponders.

"Well, in this case, what's needed is a way to get the information to our allies, and to our headquarters, without the enemy noticing."

There's no doubt that communication lines are under strict surveillance, from the command communication network to the frontline combat information network. All communication information is encrypted, and not all of it can be easily decoded, but that doesn't mean that the secrecy of communication is completely protected. From the judge's point of view, they should be able to see who's doing what and where, from headquarters to the frontline.

"If we just transfer it over the combat information network," Kiara tapped the communication display. "The traffic volume is the highest, but the encryption strength is also weak, so if it's decoded, it'll be a breeze." "Shall we go and borrow the command network?" "Where?" Marika asked, and Chiaki pointed to the ceiling. "The bridge of this aircraft carrier is under the command of Blue right now, right? There should be a command network set up for us." "A freshman going to the bridge to borrow the command network? Isn't it like going to announce to everyone that they've got important information?" Marika said, and Chiaki shrugged. "The most certain thing is to go back to Grunwald to touch the command network?" "If the communication line is unreliable, that's the only option." Hmm, the three folded their arms and thought deeply. "I thought messengers and liaison officers were long gone, but are they necessary to reliably deliver information that must not be known to any enemy?"

"With this communication system, we can use high-strength encryption for VIPs."

Kiara regretfully switches the display settings screen.

"If we use something like that, it's like declaring that we've sent important information even if the code can't be deciphered."

Marika opens the information terminal she took out from inside her work clothes and taps it.

"Um, I wonder if there's a ferry that would be good for timing our return to the mother ship."

Because the captured "Red" aircraft carrier and the captured "Blue" amphibious assault ship Grunwald 59 are in the same fleet, there is frequent travel between them, not just by ferry.

"If you're just going to Grunwald 59, you can probably just go up to the deck and raise your hand and get on."

Marika scrolled through the latest schedule.

"So, to ensure that information is transmitted reliably, I think we need double or triple backup methods."

Marika looked at Kiara and the communications room, whose door was wide open.

"I think that with this communications system, we can send the Red exercise scenario to our headquarters more safely and reliably than the combat information systems out there. What do you think?"

"Huh?"

Kiara put her hand to the communications room with a difficult look on her face.

"No matter what, if we send it from here, it will be monitored, so should we send the personal communication out and make a few jumps before sending it to HQ? Is that possible?"

"Can we do that?"

"Well, with all this equipment, I think we can set up a little trap and make it jump to a few places."

"Please."

Marika pointed to the data card in Kiara's hand.

"Also, make two copies of the scenario. I'll go back to the mother ship and try sending it over the command network."

"I'll transfer it to that unit."

After saying that, Kiara made a difficult face.

"I see, so the network can be read just by using it. Okay, I'll copy it with our equipment. Wait a moment."

"And then"

Marika picked up a box and a drink pack from the wagon.

"We'll hand these out to the field, so if you want some, take them. We can't eat it all by ourselves anyway."

"Huh?"

Lynn noticed that a personalized message had arrived.

The electronic warfare command room of the electronic battleship Carl Marie Isaac has a three-dimensional structure with countless sections connected radially to the front, back, left, right, top, and bottom of the central command room. Each section is connected by a transparent durasilicon steel frame that transmits visible light, and the number of sections and personnel participating increases depending on the scale and content of the operation.

It is said that the electronic warfare command room of the Stecken class, which is deployed in actual combat, is not staffed until it is full, as it is designed to carry out operations on the scale of an interstellar war. The current exercise is based on the assumption that a fleet battle will take place between large fleets, and since there is plenty of seating in the command room, everyone, even the new recruits who have just enrolled, is given their own seat and a mission.

Given a dedicated seat and an electronic device to be responsible for, the operator must check its condition, make any necessary maintenance adjustments, and keep the equipment in top condition. As it is the latest electronic warfare ship of the modern era, the interface is equipped with the latest virtual reality displays and contactless controls, but it is also equipped with older 3D displays and keyboards.

Lynn has experience in electronic warfare on the Odette II and Bentenmaru, and with the latest electronic equipment on the Silent Whisper. Having gained further knowledge through classes and training at the military academy, Lynn immediately customized her dedicated seat on the Carl Marie Isaac, the electronic warfare ship to which she was assigned for her graduation exercises, to make it easier for her to use.

Lin, who is still a first-year, second-semester student, is assigned a seat in the command room, but it is almost at the bottom, and her only duty is to monitor the enemy "Red" army's electronic warfare attacks and their response. Nevertheless, as expected of a cutting-edge electronic warfare ship, the equipment in her seat has the same performance as those in the center, and she is given the same authority.

As an electronic warfare officer, she must carefully check the equipment she is given and fine-tune it to make it easy to use. Having been assigned to the same type of electronic warfare ship before the graduation exercise, Lynn made fine adjustments to her seat according to her own policy and saved the settings.

Once the exercise is over, she erases her personal settings and returns it to its initial state. When she is assigned to a new seat, she checks and adjusts it according to the equipment and mission to create a working environment.

Because she had trained on the same Stecken-class electronic warfare ship before the graduation exercise, it didn't take her long to check and adjust it for the graduation exercise.

The Stecken-class electronic warfare ship is also the "Blue" side's most powerful weapon in electronic warfare. In line with the exercise's premise of a fleet battle, the authority regarding battle command has also been expanded. The amount of battle information that could be monitored even from Lynn’s seat, which was a low-ranking position, has been increased.

You should obtain and evaluate all the information you can get. Lynn’s childhood policy has not wavered, but has been reinforced by her subsequent hobbies (games) and club activities. Utilizing her expanded authority, Lynn has secured an environment where she can connect not only to the battle data of each individual ship that is normally distributed to the electronic battleship seat, but also to the battle information flowing through the battle command communication network, and even to private networks outside the Imperial fleet.

However, communication is not unlimited inside an electronic battleship during exercises.

The upperclassmen, who are tough, are said to have expanded their range of connections to networks they built among themselves and private online games. Everyone in the electronic battleship class has heard the story of how one student was hacked by an instructor who was monitoring everything, and was found to have repeatedly made false statements and engaged in problematic behavior, losing social credibility and their accounts.

Despite this, there is no end to the candidates trying to set up and use personal communication lines. In addition, instructors do not actively prohibit it in order to foster the independence and creativity of the cadets.

Lynn monitors as much battle information as the authority given to her desk allows, and as a new cadet who is only participating in exercises for the second time, she pretends to be a serious honor student by setting up a private line for contacting classmates only within the scope of the private messaging service permitted.

The only personal messaging service registered is the ID code she normally uses at the military academy. She has been given several other ID codes via the intelligence department that can be used for dummies with high encryption strength, but she has not set them on the electronic battleship where she is assigned.

"What is it?"

It is the new date in Galactic Standard Time, and all of the ships of the Blue fleet defending the Gaiapolis system are preparing for the scheduled fleet battle. Classmates in similar situations are sending her the latest information, idle chatter, and various other information.

Electronic warfare between the attacking fleet "Red" and the enemy advance party and friendly patrol nets has already begun. Electronic warfare begins before the first shot of a fleet battle and continues even after the battle ends.

Although the electronic warfare command room is busy checking the situation and simulating battles, it is still a long way from the start of the main battle. After finishing her shift, Lynn pulls up a message for herself on the display.

"From Marika?"

The news that the team of new powered suits, including Marika and Chiaki, had achieved a great feat by locking the central computer in hand-to-hand combat against the "Red" aircraft carrier had reached Lynn. The message was a brief update from Marika and a video of the guest cabin of the Myradodo, which she had ended up occupying for the night.

"You're doing something you're not used to again."

Normally, Marika wouldn't send such an excited message. Lynn wondered if she had ever seen such a message from Marika before, and realized something.

"So it's a hidden message?"

After entering the military academy, you have to consider the possibility that all information traveling over the network is being monitored somewhere. If you want to send a necessary message, you need to take care not to analyze it even if it is being monitored.

Currently, Marika is on board the "Red" Army aircraft carrier that she had captured from an amphibious assault ship, so if she goes out of her way to send a message to the "Blue" electronic battleship, she should be aware that it is being watched.

"If she went out of her way to send it here, she must have found something that can't be put on the regular route."

After repeating the scan several times with different patterns, Lynn noticed noise embedded in the video data. She tried to extract only that part and restore it.

"Oh dear."

Looking at the restored data, Lynn finally spoke up.

"The Red Army's exercise scenario means it's essentially a war order. That's surprising."

She scrolls through the contents quickly. It's a textbook tactical strategy that puts a strong fleet at the forefront, so there's nothing new about it.

The tactical scenario has a short message attached to it, typical of Marika.

"*We've successfully salvaged it from the captured aircraft carrier's computer. We've sent it via other routes, but just to be safe, please send it from there to the Blue headquarters.*"

After reading it, Lynn frowns and reads the message again. She checks the relay route of the message.

"It's not the captured enemy aircraft carrier that's sending it, but the original carrier. That means it should be able to use the command and communication network, not the low-level combat information network. It's using other routes too..."

Lynn tilts her head a bit more.

"Rather than a reliable transmission of information, are you looking for the possibility of being monitored?"

The exercise scenario, which was essentially a military operation plan, had been salvaged from the central computer of the Red Army's aircraft carrier, Myradodo, and was then uploaded via multiple routes to the Blue command and communications network, and delivered to the supreme command headquarters located on the Gaiapolis campus.

"As expected of someone who has experienced interstellar warfare, he knows how to handle strategic information."

On the Bentenmaru Bridge, which is in operation after docking on the ground, Hyakume is examining the transmission route of the Red Army's exercise scenario, which he obtained using his refereeing authority.

"Important information is properly sent via the Command and Communication Network, and confidentiality is perfectly managed."

"Our captain is no amateur."

Schnitzer, who was also analyzing the situation in the battle commander's seat, said.

"Luca, who contacted us, should have explained our situation to us. They'll probably take extra and extra safety measures."

"Yeah. Thanks to that, we can track exactly where and how the exercise scenario extracted from the enemy aircraft carrier's central computer is processed, or if it's not processed at all."

The exercise scenario, like a normal operation instruction manual, is a compilation of a wide variety of tree-like developments. If allies are connected by a network, it will be changed and modified as the battle situation progresses.

The "Red" Army's exercise scenario extracted from the Myradodo's central computer was stopped from being updated by the "Red" Army at the time of its capture. Bentenmaru, which has the authority to adjudicate, also compares the latest exercise scenario with the extracted exercise scenario.

Hyakume and Schnitzer both agreed that the extracted "Red" Army exercise scenario could be modified from somewhere once it was on the "Blue" Army's network. If you want to control the development of the exercise, modifying the exercise scenario is the most reliable and easiest way.

Hyakume was monitoring the exercise scenario that had been transmitted through the Blue Army's command and communication network, which Marika had come into contact with after transferring to the mother ship Grunwald 59, to see if it had been altered at any stage by an outside source. Schnitzer was closely examining whether the contents had been altered.

The exercise scenario data that Schnitzer had examined showed no signs of having been altered between the time Marika and Chiaki returned to Grunwald 59 and put it on the command and communication network before arriving at HQ.

The investigation into the route of the command and communication network from Grunwald to the Blue Army's general headquarters, which was set up on the west campus of Gaiapolis, as well as the interception and monitoring from various directions, proved extremely difficult.

Hyakume was continuing his time-consuming investigation, repeatedly changing his approach to the command and communication network route, which a cursory investigation would not reveal, to see if monitoring had been carried out from unusual locations.

Leaving the investigation of the exercise scenario to Hyakume and Schnitzer, Coorie, who had been monitoring the movements of the "Red" and "Blue" fleets before the fleet battle, suddenly stopped what he was doing while comparing the movements of both fleets with the plan.

"But doesn't the "Red" fleet consider the possibility that their aircraft carrier was captured and the exercise scenario was extracted?"

Schnitzer answered Coorie's question.

"Any decent command center would consider the possibility that if an ally falls into enemy hands, all of the information they have will fall into enemy hands."

Schnitzer quickly switched between displays.

"Of course, there are measures in place to erase information and maintain confidentiality, but if they follow wishful thinking that everything will work perfectly and confidential information will be preserved, then they're not a proper command center. And the Third Fleet, which plays the "Red" Army, should be a proper command center."

"So, the "Red" Army will reconstruct their operations on the assumption that the exercise scenario has been leaked to the enemy, right?"

"That's right."

Schnitzer used his refereeing authority to call up the latest "Red" Army exercise scenario. The changes have been increasing over time.

"The original scenario was a textbook fleet battle. That can be judged by looking at the "Red" Army's formation from the "Blue" side, but if we assume that the original exercise scenario was leaked to the "Blue", then the "Red" would make significant changes to the original scenario."

"And the "Blue" Army should be aware of that situation, you say."

Coorie nodded.

"It's natural for the Reds to launch a textbook fleet battle as an educational side, but the Blues, being inferior in military power, knew they would lose if they responded in a textbook manner, so the battle depended on how aggressively they could operate their fleets, but the upset of the early carrier capture turned that conventional development upside down, right?"

"You could say that."

"If that's the case, it's a matter of which side will use more aggressive or unconventional tactics, but I wonder if this is also one of the unexpected developments that the hypothetical enemy is anticipating?"

"... What did you say?"

Unable to fully read Coorie's intentions, Schnitzer asked again.

"Well, Red is still in the exercise scenario stage, but they've started a pretty big rearrangement of their fleet. I think that changing the formation and placement so minutely means they've clearly changed the original plan."

"The original plan was to have the main forces collide with Blue's main fleet while keeping them all together, but this..."

Schnitzer displayed the latest status of the Red army's exercise scenario, which he had called up using his refereeing authority. The Red army's fleet deployment in reality has not yet started, and Blue, which is scouting it, has not yet responded, but the future movement of the fleet is completely different from the original plan.

"They're rearranging the fleet's placement from a multiple sphere to a hemisphere, huh?"

While working on his own, Hyakume called up the Red army's exercise scenario on the display. He postponed the scenario with a rough outline.

"A full-scale attack on the Blue main body with the main mobile cruisers? That's quite a big change of plan."

"Assuming that the enemy knows the textbook operational plan, and that we are also playing the role of a training fleet as an exercise opponent, there aren't many options available."

Schnitzer proceeded with the exercise scenario along the scheduled timeline.

"If this were a real battle, we could buy time and set as many sneaky and underhanded traps as we want, but this is an exercise with a time limit. Another condition is that the military academy training fleet will have to experience an all-out fleet battle."

"This is..."

Hyakume groaned as he proceeded with the exercise scenario.

"So it's an all-out battle with the mobile cruisers charging in and battleships in the second wave? Deploying all of your ships right from the start is typical of the Imperial Fleet, that's very generous."

"Exactly. Moreover, your battle strategy is repeated attacks. This will place a considerable burden on the entire fleet."

"Well, battles tend to place a considerable burden on everyone."

Coorie looked at the battle progress chart with a gloomy look on his face.

"The original plan was to form a tight formation and engage in the basic anti-ship battle, but you changed your strategy 180 degrees and chose this formation and deployment, so is that it?"

"Right."

Schnitzer nodded gravely.

"The Red Army has completely abandoned the textbook fleet battle strategy against the Blue Army. They will send their more maneuverable cruisers and their more powerful and armored battleships to the front and launch a melee against the Blue Army's main force."

"Melee," Coorie repeated.

"That's not something you see very often in a fleet battle between regular fleets."

"That's right. When it becomes a melee, where the enemy's responses tend to be scattered, it becomes impossible to control the battle airspace with a unified command. Since the strength and outcome of the battle are left to the discretion of each individual ship, the difference in the strength of each ship becomes clear. If they can't fight a fleet according to the textbook, it's a tough one for the training fleet, but it can be said that they have chosen the course of action they need to take."

"Are you going to make a fleet of this size fight a melee?"

Coorie displayed a list of the fleet formations of the Red Army's main force on the display. It's a large fleet with fast battleships and mobile cruisers as its main force, and it's well balanced because it leaves aircraft carriers and supply ships in the rear.

The opposing "Blue" force is also preparing a formation with mobile cruisers and battleships as its main force for an all-out fleet battle. The enemy fleet's change in formation has been brought to the headquarters by friendly patrol ships and reconnaissance aircraft, and they should have already started responding accordingly.

"That's right. According to the original plan, both the attacking "Red" and the defending "Blue" would have planned a textbook large-scale fleet battle, but if they are forced to change their plans to this extent, the burden on both fleets and headquarters will be considerable."

"Leaving aside the Third Fleet, I wonder how much the headquarters of the military academy, which is full of new recruits, can handle such a sudden change of policy."

Coorie checked the data flow of the "Blue" force's command and communication network. The patrol network spread across the entire star system, and the amount of communication with the deployed ships was gradually increasing.

"Though this was a predictable development when the Red aircraft carrier fell into Blue's hands, I hope that the Blue command doesn't resent us for being such a rookie and successfully extracting the exercise scenario."

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Description automatically generated

With their aircraft carriers seized by Blue, the Red Army decided that the original exercise scenario had also fallen into enemy hands, and so they made major changes to their operational plan.

The change from a textbook large-scale fleet battle to an all-out war that made use of the highly maneuverable cruisers and heavily armored battleships would significantly change the movements of both Red and Blue.

The enemy's intentions and attacks could be predicted by observing the formation and movement of the enemy fleet. The Blue Army, on the defensive, had laid a strict patrol network in the Gaiapolis inner planetary system, making it possible to capture the movements of the Red Army almost in real time.

Initially, it was expected that Red would keep its main fleet together and head towards Blue's main fleet. In response, Blue planned to split its fleet into three and intercept from three directions simultaneously.

The basic rule on the battlefield is to deploy all available forces at once. However, all of these forces are wasted if they are not put into combat. If Red maintains its superior force and moves to destroy the three-part Blue fleet one by one, the remaining two fleets will be unable to exert their power.

As a result, where and from which to start the battle becomes an important issue.

To gain control over the battle, Blue plans to launch a simultaneous preemptive attack on Red with its three-part fleet. Since the enemy fleet will not move according to your convenience, you will need a variety of strategies to launch a preemptive attack that suits your needs.

Blue plans to repeatedly use hit-and-run tactics against its advance fleet, which it sends out in small quantities, to create a situation in which the three-part fleet can attack simultaneously. However, the capture of an aircraft carrier behind completely upends this original plan.

The "Red" main fleet, which had formed a multi-sphere formation to destroy the enemy's main force while protecting it with multiple layers of surrounding defenses, changed its formation to a thin formation of just two overlapping hemispheres, which was reported to headquarters by the "Blue" patrol ship. "Blue", which had anticipated the initial change in strategy due to the leak of the exercise scenario, abandoned the plan to split the main fleet into three and intercept the enemy, instead planning to combine them into one for a concentrated interception.

The major change in strategy of both "Red" and "Blue" was also communicated to the cadets, who were in a celebratory mood aboard the captured aircraft carrier on the morning of the second day of the graduation exercise.

As a result, the start of the fleet battle between the "Red" and "Blue" main forces was expected to begin much earlier than the originally planned third day, on the second day, and to be protracted.

"I thought it would be a disaster again."

Marika, Chiaki and Kiara, who had traveled back and forth to the Grunwald 59 mothership the night before, were in the guest cabin on the morning of the second day of the graduation exercise. The bonus guest cabin was available until the end of the breakfast delivered by room service. After that, they had to return to their regular duties and read the battle information as usual.

The excessive amount of food and drink service delivered the day before was used up as tips and presents for classmates and crew members, but while cleaning up the breakfast that had arrived this morning, Marika was checking the latest battle information and future predictions that Kiara had laid out for her to see.

"This is going to be even more troublesome."

"Red, who had planned to launch a textbook fleet battle, has made a complete change of strategy, assuming that information will be leaked due to the capture of an aircraft carrier."

Kiara summarized and read out the battle predictions.

"We're going to spread our fleet forces thinly and widely, and then we're going to launch a fleet battle against the main force of 'Blue' while defeating them one by one. Is this because we stole the exercise scenario?"

"That may be true, but if the enemy captures two aircraft carriers, the headquarters has to assume that all the combat information contained within them will fall into the enemy's hands."

Marika picked up a second cream sandwich decorated with colorful fruits.

"The exercise scenario should have been changed when the carriers were captured, so if there's any responsibility, it's the headquarters that gave the orders for such a reckless operation. It's not something we should feel responsible for since we made it a success."

"That's fine, but..."

As she licked the mousse, which tasted refreshing and far from combat rations, Kiara reluctantly moved the timeline of the future battle situation prediction.

"But when I move the future prediction like this, why does it stop giving predictions halfway through? I wonder if it hits some kind of restriction?"

"Maybe, because the preconditions for the battle are too absurd, and while it might be possible if it's just after the start, the predictions become so divergent that it becomes pointless to display them."

Marika moved the timeline and its probability display on the display while still holding a sandwich in her mouth.

"When you ask a computer to predict the future of a battle situation, it usually displays the probability as well. With this development, there are too many options for each battleship, and as soon as the battle begins with the initial formation, the predicted probability drops drastically."

"Even a computer can't predict how the battle will turn out?"

"That doesn't seem to be the case."

Marika moved the display while chewing.

"The main force of the Red Army is taking a formation where all the ships are in front of the other, instead of the original plan to keep the fleet in a centralized position, in order to maximize the fighting opportunities for each ship. This means that even if the enemy and allies continue to take optimal maneuvers, there are too many possible moves to display, and even if they were displayed, it would be difficult for the viewer to understand what is going on."

Marika selected one of the combat units of the advancing Red main fleet and displayed its predicted maneuvers on the display. The mobile cruisers, the basic unit of aerial combat, entered the Blue fleet in pairs, and as soon as they entered the battle, their predicted trajectories spread in all directions, like fireworks whose tracks never faded.

"During the first lecture, we were shown a simulation of a one-on-one battle between mobile cruisers. You can predict a battle from the initial state assuming that each will take the optimal move, but if the battle continues for a long time, the range of possible moves becomes too large and future predictions diverge."

"Is it going to be a melee that even a computer can't predict?"

"Even if a thickly armored battleship were to seriously engage in anti-ship combat, it would take a lot of time, and since predictions are piled up, there's almost no chance that the battle will actually unfold as planned."

Marika switched the display.

"But even if you can't predict the outcome of an anti-ship battle with high accuracy, you can calculate how a fleet battle will turn out. The Red army is trying to use tactics to maximize the combat opportunities of its main battleships, which are more than twice as numerous as the Blue army. If the Blue army were to foolishly join in the melee that the Red army is instigating, they would definitely lose."

Marika displayed a future prediction of the battle between the two main fleets, the Red and the Blue, instead of individual battle predictions. If the more numerous Red army went into combat with the Blue army, the more powerful Red army would be judged as incapable of combat unless both of them retreated.

The future prediction does not include the point at which the Blue Command will decide to retreat or surrender. However, if all of the main battleships and cruisers are directly deployed in the battle on the front lines, the outcome of the battle will be clear, with only the difference being whether it will be long or short.

"Even if we don't have a computer predict the future, our Command is not so stupid that they can't calculate it that well."

Chiaki is tasting various colorful dessert fruits.

"It's obvious that you'll lose if you go head-on against a large force, so won't we make major changes to our strategy from the original plan?"

"Of course, I think they're thinking that much."

Marika rewound the future prediction of the battle situation to the present and updated the fleet deployment information.

"If the enemy is spreading out far and wide and trying to drag us into a melee, it's obvious that we'll lose if we go along with it, so the basic idea is to spread the enemy out so they can't cooperate, then concentrate your forces and attack them in an advantageous situation, but I'm sure the enemy knows that basic principle too."

"So, what should we do?"

Marika thought deeply when asked by Kiara. If she were the commander, how should she deal with a superior enemy that was steadily preparing to attack?

"There's a time limit," Marika muttered.

"Because this is a graduation exercise, if we can hold out until the end of tomorrow, the battle will end at that point, so if we can avoid fighting and hold out until then, at least the Blue team won't end up with a crushing defeat."

"It would probably destroy the trust of the HQ."

"Really? If they avoid fighting when they know they're going to lose and conserve their forces until the end without wasting them, I think that would be a great HQ for the field."

"If they decide to run away at this stage, it would be one thing if they had already lost, but wouldn't the top cadets who are playing the HQ role not get good grades?"

"I see, so the purpose of this battle wasn't to win, but to get good results."

"What else can we do?"

"We'll bring in usable forces from elsewhere."

Marika expanded the range of the battle display to cover the entire Gaia system. The guerrilla fleet that was outside the outermost planet's orbit and the "Red" supply fleet were also included in the display.

"We've entered the battlefield early and have been declared victorious, but our mission as the guerrilla fleet is not just to attack the Red supply fleet, but also to hold back the enemy's main force. The Red supply fleet has taken over two aircraft carriers and dealt some damage to the rest, so its combat power has been reduced by 20% from the original. Even if the supply fleet joins the main force, it won't be a significant force, but the guerrilla fleet may not be unscathed, but if we add in the captured aircraft carriers, its combat power may have increased. If that's the case, what our headquarters can do is to stir up the enemy's main force and buy time while recalling the guerrilla force to attack from behind."

Three distinctive ringtones echoed in the guest cabin at the same time. The personal communication units directly connected to the combat information network announced the arrival of information of the highest importance.

"Here they come."

The three of them picked up the communication units they were carrying.

"New operational instructions from HQ?"

Chiaki skims over the information that has arrived, displaying it in 3D.

"Orders for the guerrilla fleet to sortie. See, you're saying unnecessary things, so that's exactly what happened."

"I'd really like to gather everyone in one place and give a briefing or something, but I guess we don't have the time."

The new operational specifications explained changes to the operation due to changes in the situation.

The combat information network allows communications to reach the very end. The explanation of the overall situation is the same, and orders with slightly different operational principles and objectives are delivered depending on the department to which they belong.

Patrol networks and reconnaissance aircraft that extend throughout the star system report the latest status and future predictions of the Red main fleet as understood by HQ. The change in formation from a spherical formation with multiple layers of defense to a double hemispherical formation aimed at increasing opportunities for enemy encounters and combat was explained as a result of the main forces of "Red" having lost their supply fleet and seeking a quick battle with random fighting.

"Blue", which is inferior in frontal fighting power to the main fleet, cannot simply respond to "Red" tactics. If it were to use the same tactics against the numerically superior "Red", it would only be a matter of time before it would be defeated after being judged to be heavily damaged, sunk, and unable to fight.

Originally, the "Blue" command had planned to concentrate an attack on the enemy's main forces with three fleets, but in response to "Red"'s change of strategy, they chose a disruptive tactic of repeated high-speed hit-and-run attacks by a small number of fleets.

It is only in the first stage of the battle that "Blue", which is already inferior in numbers, will further divide its forces and attack "Red". The aim of high-speed hit-and-run attacks is to break up "Red"'s formation and further increase the gap between the fleets, which were already spread thinly and widely. For that reason, when launching a high-speed hit-and-run counter-battle, the attacking side is required to disrupt the intercepting side's formation, pull them out, and have them pursue, rather than focusing on the results of the battle.

The plan was for "Blue" to repeatedly launch hit-and-run attacks in order to spread out and disperse the "Red" main fleet as much as possible. Then, once the "Red" main fleet was sufficiently dispersed, they would gather their superior forces and aim to defeat them one by one.

A textbook fleet battle would be decided in a few hours, but with this time-consuming operation, even if Red takes advantage of our attack and launches an intercept as planned, it is expected that it will take several dozen to several tens of hours for the battle to begin. During that time, the main fleets, both friendly and enemy, will continue to be in a state of combat.

The change in tactics will force all forces participating in the graduation exercise to change their plans.

The guerrilla fleet, which attacked the enemy supply fleet as a rear guard and ended up starting the first battle of the graduation exercise, has also been ordered to follow the change in tactics and adopt a new plan.

The guerrilla fleet is to return to the front line with the two captured aircraft carriers and join the battle against the Red main fleet.

The guerrilla fleet will turn its back on the Red supply fleet, which has retreated but is still in combat mode, and begin moving toward the planned fleet battle in the inner planetary system.

According to the most optimistic scenario envisioned by the headquarters, the Red main fleet would have been dispersed by a disruptive attack by the time the guerrilla fleet arrived, and a decisive battle with the Blue main fleet would have begun. The guerrilla fleet was to join the battle between the main fleets and wipe out the dispersed forces.

Special rules for the exercise were applied to the two captured aircraft carriers.

If a large combat ship from the enemy fleet was successfully captured after an engagement, it would be impossible to immediately use it in the next battle in an actual battle unless there were special circumstances such as all of the crew having betrayed each other.

If it was captured as a result of a battle, it would be damaged, and it would need to be repaired and treated, and an ally/enemy identification system would need to be installed so that it could be used as an allied ship. Furthermore, tests would need to be conducted to accurately grasp its performance and confirm that there would be no problems in actual combat before it could be added to the battle line.

Even if an enemy ship is captured intact and escaped, adjustments to the friend/foe identification system and performance tests are required, and even if the ship and aircraft are immediately usable, they cannot be moved unless the crew is assembled.

If the exercise results in a successful capture, the captured ship will be intact, along with its fleet, crew, and equipment. If the battle result is moderate damage or more, it will be impossible to return to the front line immediately, and it will be required to wait until the end of the exercise.

The regular aircraft carrier Myradodo, belonging to the ``Red'' supply fleet, was captured by enemy forces that had infiltrated the central computer as a result of hand-to-hand combat, and it was determined that the damage inside and outside the ship was minor, and it would be possible to return to the front line with just emergency repairs.

If it were a real battle, it would be impossible to immediately deploy a captured ship to the front line. However, special rules for the exercise allow for deployment to the front line with reduced regular forces depending on the situation.

"The strength of the carrier alone is calculated at 80%, and 70% of the aircraft remain?"

Marika muttered as she saw the figures for the Myradodo's strength as "Blue", calculated based on the special rules for the exercise.

"That's cheating."

"That's because they're supposed to be fighting hand-to-hand inside the ship, so I think they're still holding back quite a bit."

Kiara brought up the damage assessment list for the Myradodo.

"They're fighting both inside and outside, not just from the flight deck to the storage deck, but also inside the ship in their powered suits. In reality, they'd have to dock and get repaired to be able to use it, so aren't 80% of the hull and 70% of the aircraft pretty generous figures?"

"If it's just a battle, as long as the machines survive, it'll be fine."

Marika checked the more detailed settings and switched the display.

"It's a captured ship, so if it works properly and does what it's told, it can be taken to the battlefield, and if it lasts until the end of the battle, it's good enough."

"So what about 80% of the ship and 70% of the aircraft?"

"That's just an additional rule to allow the captured ship to switch sides and participate in the exercise again, with the judge's discretion added. If you actually wanted to capture such a large ship and use it as an ally, you'd have to repair it, maintain it, reconfigure it, adjust it, and get the crew back together, unless the whole ship has switched sides."

"That's true," Chiaki spoke up.

"Even so, isn't it impossible to get the whole crew together to operate a captured ship?"

"Instructor Parker said that battles are always a series of impossible and reckless things. So, where are we going to be assigned?"

Marika fast-forwarded the mission orders sent to the communications unit.

"Eh, or help operate the carrier here? I don't think we'll need the powered suits again with this development, so maybe I'll help out here."

Marika stopped fast-forwarding the display on the communications unit. A new mission due to the change in strategy was displayed.

"Eh..."

After a double look, Marika read it aloud a third time.

"Go on patrol duty in the Myradodo's patrol boat?"

Marika switched the display around the captain's seat to show the outside view. The vast hangar deck of the Myradodo is shown on screen.

The majority of the aircraft that were deployed were unable to return to the captured carrier and were instead being stored on other aircraft carriers. Less than 30% of the aircraft remained on the hangar deck, including the spare aircraft that did not deploy, and the hangar deck, which should have been packed on both sides if the number of aircraft was as per the quota, was empty both above, below and below.

Currently, the number of crew members of the Myradodo, which has been transferred from "Red" to "Blue", has increased by about 10%. In addition to the regular crew members from the Third Fleet that were already on board, cadets and instructors who have been gathered from the "Blue" fleet to operate the captured aircraft carrier have come.

When operating a captured ship in a training situation, the allies must have a minimum number of crew members on board the captured ship and operate it on their own. Whether it is a carrier-based aircraft or a work boat, it cannot be operated without the crew of the allies.

In the event that an enemy ship is actually captured or plundered on the battlefield, the staff required to operate the captured ship must be allocated from the crew already in place. However, spaceships are expected to be operated at maximum efficiency, and so there are no spare crew members.

Based on this reality, the Training Fleet Command, having achieved a golden victory by capturing an enemy ship, is forced to decide whether to lock the captured ship or use it in battle. If the captured ship is locked, the vessel and its crew that participated in the operation will be judged based on the battle results and then move on to the next operation.

If a captured ship is to participate as an allied force, sufficient crew members from an allied ship must be brought aboard to operate the captured ship. In this case, crew members must be drawn from the guerrilla fleet that participated in the supply fleet attack to operate the two captured aircraft carriers.

There is no way that a training ship operated by half-baked cadets would have enough staff to operate a recently captured aircraft carrier that hadn't even received any specialized training. However, the guerrilla fleet was ordered to operate the impossible task of operating a captured aircraft carrier, which was better than nothing, so instead of the upperclassmen who were the main force in the graduation exercises and were accustomed to the ships and missions they were aboard, they organized their main force around underclassmen who were half-apprentices and far from half-baked.

Dispersing the staff would also reduce the fleet's fighting power. The guerrilla fleet decided to keep the upperclassmen who had jobs and accumulated skills in the training fleet to minimize the decline in combat power, and to leave the operation of the two captured aircraft carriers to the freshmen and underclassmen who were not expected to be much of a combat force.

Of course, the regular aircraft carrier crew of the Third Fleet, which was the "red" side, remained on the captured aircraft carrier, and the operation was left to the "blue" side cadets who had come aboard. The instructors who will be supervising the trainees also board the ship in large numbers, but their role is limited to that of observer, as before.

"Based on the future operational developments, it is almost unthinkable to deploy powered suits from an amphibious assault ship, so I guess they're sending out unused forces and useless new recruits to operate the captured aircraft carrier, which might add to their strength."

Thinking that they'd done something similar before, Marika switched the display around the captain's seat. A list of personnel allocations from the "Blue" guerrilla fleet was displayed on the Myradodo.

The senior students who were likely to be assigned to the paratrooper corps as powered suit pilots after graduation had returned to the amphibious assault ship. The personnel who had participated in hand-to-hand combat were not enough to operate two regular aircraft carriers, so personnel to operate the captured aircraft carrier were selected from all the ships that made up the guerrilla fleet.

"I guess they kept as much of the training fleet's combat power as they could, and allocated reserve forces to the captured aircraft carriers that they weren't sure they could use."

As they incorporated the captured aircraft carriers into the forces of "Blue," the headquarters quickly gave up on fully deploying the remaining aircraft. The majority of the carrier's combat power comes from its aircraft, but operating them requires a lot of manpower. The training fleet, where all the candidates are organized with a role, does not have the manpower to do so.

"So, they've essentially given up on using it as an aircraft carrier, and they're expected to patrol a wide area with electronic armaments and control capabilities on a battleship's level."

Chiaki, in the navigator's seat, summarized the operational instructions as she interpreted them.

"I thought that an aircraft carrier that can't use aircraft would be too big to be used as anything but a mobile supply base, but it would be a luxury to use the whole ship as a patrol base."

"Even if we have an aircraft carrier, that's about all we can use it for with the personnel we have now."

Marika carelessly scrolled through the operation instructions.

"We've set up a strong line with our headquarters to share information, and it's essentially a local branch of the headquarters. It's true that if we don't have the capacity of a headquarters, we won't be able to seriously evaluate and analyze the combat information collected by the two aircraft carriers we've sent to the battlefield."

"But..."

Chiaki looked around at the displays around the navigator's seat, which were automatically completing the pre-departure checks.

"But that doesn't mean three freshmen can operate such a new model, does it really matter?"

"Yeah, I guess."

Marika switched the display from the mission order to the preflight checklist.

"But they even had to do the landing craft atmospheric reentry in the entrance exam. They're still in the early stages of the training, but they're also doing exercises in powered suits, and even though it's the latest model, the patrol system is taken care of by headquarters via the aircraft carrier, and our role is just to drive the antenna to the designated location, so it can't be helped, right?"

"But you know, we're the lowest-ranking members of the military academy, and even though we're cadets, we're practically amateurs."

Chiaki brought up the same checklist as Marika and started the preflight check.

"And yet you've been entrusted with an entire patrol boat like the latest electronic battleship, and even though your job is to be a Coorie, you're still helping with the latest fleet battles."

Chiaki sighed as he projected the rugged shape of the patrol boat, with its excessive antennae visible even when stowed.

"If technological advances make war easier, I'm starting to think it's better not to advance too much."

"You're starting to sound like a veteran."

Marika switched the display.

"Silent Hammer 680, from Cadet Kato Marika, Cadet Kiara Feish, can you hear me?"

"*This is Cadet Kiara Feish, I can hear you. Propellant supply is almost complete.*"

Marika switched the external monitor. A powered suit with a flexible pipe for supplying propellant connected to the side of the fuselage was displayed.

"The propellant will be full soon."

Marika checked the supply status of the patrol boat.

"The supply will stop automatically, so return the supply pipe. Also, charging and data update are complete, so when you return the supply pipe, cut the umbilical cable."

"*Roger.*"

Marika, Chiaki, and Kiara were given a new order to patrol the patrol boat that was left on the Myradodo.

The "Blue" Army HQ decided to move the two captured aircraft carriers closer to the front line and use them as patrol bases, and ordered them to move to the Gaiapolis inner planetary system together with the guerrilla fleet. If they were used as a hub for a patrol network to collect information on the battle space, there would be no need to advance a huge regular aircraft carrier to the front line, and if it was just for information gathering, the operational effort would be kept to a minimum.

Furthermore, the "Blue" Army HQ planned to dispatch patrol boats that could be used among the aircraft on board the captured aircraft carriers, and deploy them around the battle airspace.

The wider the area, the more detailed and accurate the battle information would be. Since a melee between large fleets was expected, the more eyes there were to observe the battle airspace, the better.

However, it would be difficult to procure crew members from within the guerrilla fleet to operate patrol boats equipped with a wide variety of complex observation equipment. In order to make the most of the limited human resources, the observation system for the captured aircraft carriers would be operated remotely via a newly established high-capacity data line directly connected to the HQ. With this system, the inexperienced candidates who had been transferred from the guerrilla fleet to operate the captured aircraft carriers could concentrate solely on operating the carriers.

Furthermore, the latest labor-saving patrol boats would be deployed from the aircraft carrier-based boats, and the patrol network for the battle airspace would be tightened.

A strong data line was established between the aircraft carrier and the patrol boat, and all networks were maintained and operated remotely from Blue HQ.

The crew of the patrol boat were selected primarily from those with experience. As a result, Kato Marika, Chiaki Kurihara, and Kiara Feish, who had received almost no training in piloting small aircraft during their practical training after enrolling, were tasked with setting out on patrol missions in Myradodo's latest patrol boat, Silent Hammer.

Just because a decision has been made to deploy, it doesn't mean that the deck crew will be fully prepared for deployment like on friendly ships. The type of boat is specified, so they must choose one from the storage deck themselves, prepare for deployment, and head out.

Although it is the latest model with advanced automation and a complete self-diagnosis system, they are set up without the cooperation of the regular deck crew, so they must do everything themselves, even refueling before the deployment. Marika, Chiaki, and Kiara select the Silent Hammer, which is in combat mode and ready to deploy, and check the situation. Since no additional equipment is needed, they fill up the onboard propellant tanks, and confirm that the aircraft is in perfect condition on the mother ship, which is connected to the onboard self-diagnosis system by network, and they load not only their own powered suits for emergency escape, but also food and drink, including spares, at the scheduled time, and are getting ready to deploy.

A comic page of a cartoon character

Description automatically generated

"Even so, it's the same Liosen Zircon as Silent Whisper, so it'll be a big help."

After completing the pre-departure check, Chiaki, who was in the navigator's seat, quickly switched between the displays around the seat.

"Even though the basic layout and control method are the same settings, there are small differences between manufacturers, so it's better to get used to it."

"I haven't ridden Silent Whisper enough to get used to it."

Marika, who was in the captain's seat, pouted.

"There's no way I can imitate Lynn or Coorie."

Marika displayed all the checklists to make sure there were no items that had been overlooked or forgotten.

"No one expects that level of performance."

Chiaki switched the display to the checklist that must be done after takeoff. The patrol boat has various large and small antennas and panels stored in the landing state, and many of them can only be deployed and checked for operation after takeoff and leaving the mother ship.

"Powered suit, storage complete."

Kiara came in, closing the open cockpit door.

"External visual check complete. Ready to go?"

"It’s probably okay."

After checking the checklist once more, Marika connected the communications system to the Myradodo's onboard control center.

"Silent Hammer 680, Myradodo control, Silent Hammer 680 ready for launch."

She verbally explained the situation and sent the necessary data to the control center.

"Is this okay?"

Kiara sat in one of the operator's seats. The number of personnel required to operate the Silent Hammer properly is a pilot, a navigator, and four system operators, and the cockpit, designed to operate under gravity, has a total of six seats. With Marika in the pilot's seat, Chiaki in the navigator's seat, and Kiara in the chief operator's seat, which is the most fully equipped, only half of the seats were filled.

"Please. Do you think you can use it?"

Marika was checking the takeoff permission and procedures that had been automatically returned from the control center of the Myradodo. Kiara, who had taken the chief operator's seat, adjusted her seat position and then looked around. The 3D and flat screen displays, along with the combined console, were densely packed together like someone with space phobia.

"Hmm."

After projecting the basic operation mode on one of the displays, Kiara lit up the 3D and flat screen displays one after another.

"The network connection seems to be working fine, so it will probably just send the data requested by headquarters, but I'd like to at least understand what's going on."

"Can you do that?"

"Even though the basic operation is the same, it's still a completely different communication system. The Silent Hammer's patrol system can't operate at full power until it goes outside and spreads its antenna, and I think you'll have to check the manual to figure out what to do."

"All right, all I have to do is sit in the cockpit."

Marika relayed the response from the control center.

"Silent Hammer, permission to take off has been given. After launching from the Myradodo, everything is automatic until you leave, so please do not touch anything other than the emergency stop button in case of an emergency."

"Understood."

The navigator and chief operator seats spoke in unison.

The floating board carrying the Silent Hammer, ready for launch, began to move from the storage deck. The patrol boat, classified as a medium-sized aircraft for the Myradodo, moved within the storage deck with its sensors and antennas packed tightly inside its chunky hull, and rose to the flight deck exposed in space.

Once the floating board was secured in place on the flight deck, the patrol boat's landing gear was unlocked. An electromagnetic catapult that was deployed longer than the flight deck captured the Silent Hammer and adjusted its launch direction and initial speed to match the flight plan.

In the cockpit of the Silent Hammer 680, the crew watched the launch sequence proceed automatically. The patrol boat shifted from flight preparation to flight mode, and the display changed all at once.

While operating at low power to minimize the impact on the flight deck and surroundings, the Silent Hammer 680 entered the launch acceleration sequence using the electromagnetic catapult. In the cockpit of the patrol boat, which seemed to be stationary with inertial control in effect, only the numbers for the high acceleration and the coordinates of the current position changed rapidly.

"If it's this easy, they should just let us go like that from the beginning."

The trajectory and destination are specified from the beginning, so all the processes from launch to arrival are fully automated as initially set. Unless there is an emergency or change of orders that requires a change of trajectory, there is nothing to do in the cockpit. I selected the launch boat myself, but if the maintenance menu, supply menu, additional equipment, and flight plan are all as specified, my only job is to monitor the monitors and displays.

"The landing craft was already prepared for the entrance exam, but we had to make everything from the launch procedure to the flight plan. Well, they were graded up to that point, so I guess they were just thrown out without a proper briefing this time."

Marika was following the automatic display sequence on the screen. The catapult had completed its high acceleration, and the patrol boat was increasing the power of its propulsion engine and entering a re-acceleration sequence to the target coordinates.

"Um, we'll be deploying the antenna and checking the sequence soon."

The combat information network with Myradodo was already connected, and a FTL data line directly to the Blue Army HQ had already been established, with a large amount of dummy data being sent to check the line.

Looking around at the displays around the captain's seat, Marika turned her head to the cockpit, where only half the crew of six was on board.

"How's that check going?"

"This one's pretty much fully automatic, too."

Kiara looked around the chief operator's seat, where the two-dimensional and three-dimensional displays were all mixed up, with a calm expression on her face.

"After we left the force field of the mother ship, the antennas were fully deployed and the operational checks were already started. If there was a malfunction that couldn't be fixed automatically, we might be asked to repair it, but the situation was cross-checked by the mother ship and HQ, and if there was a problem that an amateur couldn't handle, they'd probably do a return maintenance."

"That means, unless there's an emergency, there's nothing to do for a while."

Marika unbuckled her seat belt and floated into the weightless cockpit. The cockpit was designed to be used in a gravity environment, but in space it's normal to operate in a weightless state.

"Hey, just to confirm, you can see all the information we're getting here, right?"

Marika slid into one of the empty operator seats.

"As you can see."

Kiara tried various things by switching the display.

"Even now, the data line is connected directly to HQ, so I can see all the information they're supposed to be seeing."

Marika looked around the display in the sub-operator's seat where she was. The chief operator's seat had all the necessary information displayed, so the sub-operator's seat only showed information about the patrol boat's antenna on a flat screen.

It was the same system made by Lyseon Zircone as Silent Whisper, so it was somewhat familiar. However, it only felt like she'd seen it before, and she didn't feel like she could get it to do what she wanted just by reaching out.

"What do you want to see?"

Chiaki in the navigator's seat turned her face toward Marika. Marika stared at the 3D display surrounding Kiara.

"If such a high-performance patrol boat has its antennas and sensors fully open, I thought we could see everything, enemy and ally, and where they are doing."

"Everything?"

Kiara stopped her hand.

"Everything?" Do you mean the entire Gaia system?"

"It doesn't have to be that wide. If we were to see the deployment of the entire "Red" and "Blue" armies, we would have to see all the supply ships and auxiliary ships outside the outer planet system, but we only need to see the deployment of both main fleets."

"Even that's pretty wide."

Kiara resumed switching the display.

"I think it would be fine if we displayed it from Gaiapolis outward, with a span of about a quarter of the orbital radius."

"Can you see it?"

"Hmm."

Kiara looked around not only the chief operator's seat but also the entire patrol boat cockpit.

"I think it would be fine if we set it up so that all the 3D displays show one image, but before that, we need to integrate and process not only this ship's observation information but all the combat information we get from other sources, right?"

"That should be more than enough with the patrol boat's processing power."

Marika began switching the displays in the sub-operator's seat, relying on a vague recollection of how to operate them.

"It doesn't have to be perfectly accurate, and it doesn't have to be able to distinguish and display each ship separately. I thought that if we could just see what this ship is seeing here, we'd be able to get a much better idea of ​​the overall situation."

"For what purpose?"

Marika pondered for a moment when Kiara, who was moving her hands, asked.

"You see, I want to see all the information I can get. If I understand the situation, I'll have more options for what to do, and I'll know when to retreat."

"I thought you might want to imitate HQ."

Kiara glanced at Marika.

"That's a good reason to want to see the entire battle space to see when to retreat. It's a good idea to look at the whole picture instead of watching the data in your vicinity to protect yourself. I like it. Uh."

Kiara looked around the displays around the chief operator's seat.

"You can sit over there, look at the manual and find which mode you want to try."

"Okay, okay."

Marika adjusted the sub-operator's seat to her size and position, and called up the operation manual on the display in front of her. With modern manufacturer products, the operating instructions are built into the basic data and can be called up and checked at any time. If one is willing, even a layman can learn how to operate the machine in front of them.

If there was a guru who understood everything, it would be quicker to ask him, but the computer's virtual personality has not yet reached that level.

Throwing some random phrases into the manual, Marika searched through the countless display modes in the cockpit.

"I think this is it."

Among the display systems that are packed with as many functions as possible for military use, with performance as the top priority and cost performance ignored, she found the wide-area inspection mode.

"Found it?"

Kiara asked.

"Probably."

Marika sent the manual item she was looking at to Kiara's display.

"Wait a second, I'm currently deploying all the antennas to check the functionality. It's something like this."

Marika displayed the latest status of the Silent Hammer on the display at her desk.

While cruising to the designated coordinates, Silent Hammer 680 is setting up an observation system, spreading out an antenna several dozen times the size of the boat's hull.

Patrol boats of this type are not required to actually enter the battlefield, but as they are for military use, there is always the possibility that they may be drawn into combat. The delicate antenna system deployed around the hull is designed to be detached and escape in an emergency, and if the field deployed around it is included, the effective radius of the system reaches tens of thousands of times.

Silent Hammer spread thin, slender petals around the patrol boat, deploying various special fields including electromagnetic, light, gravitational waves, and FTL particles on the outside of its physical antenna. A procedure that would take hours just to read in the manual was being carried out smoothly and automatically at ultra-high speed.

"If we tried to launch a radar ourselves, it would be automatically intercepted in an instant, so we're mainly doing passive observation, but is this the scale?"

Marika groaned as she watched the deployment procedure scroll by at high speed through a long list.

"Receiving and analyzing electromagnetic waves on such a scale, from gamma rays to very long waves, is like building a radio observatory."

"Not yet."

Kiara checked the reception status.

"The antenna can be deployed quickly, but it takes time for the field to deploy and stabilize, so in the current state, we're only receiving about one percent of what we would receive when fully deployed."

"One hundredth!?"

Marika checked the amount of data she was receiving.

"Even now, we're receiving signals at full speed like the backbone network is at full throttle, so how can we increase this by two digits!?"

"Well, if you take everything that's flying around here, from radio waves to light waves to gamma rays to gravitational waves, that's about it. We only select friendly radar waves and useful reflections from this, remove noise, decode, and analyze them, so we don't analyze all the received data."

"I think the computer on this patrol boat can handle it even if we put everything in."

Chiaki looked over the calculation power figures in the manual. As it was the latest model, even though it was just a tiny patrol boat, it had a higher processing power than all the computers on board the Barbaroosa combined.

"Ah, here it comes."

Not only the solid antenna deployed from the hull, but also a field with a receiving area tens of thousands of times larger began to receive the radar waves that the "Blue" army was sending out throughout the Gaia star system.

Most radar waves are emitted from unmanned probes, and travel at the speed of light through the Gaia system, only to be received after a dozen or so minutes. The radar waves emitted from countless probes are randomly encoded with the coordinates and time of emission woven into them. They are then received on the other side of the target airspace, decoded, and the data obtained in the space they passed through is scooped up.

The radar waves emitted from all directions in the observation airspace are received by an observation network formed by probes and ships placed in all directions, and all the data is overlaid and reconstructed.

The data depicted is delayed by the speed of light, but the overall situation can be observed in high detail. As the receiving field deployed by the Silent Hammer stabilizes, the data obtained also increases exponentially.

Observation results obtained from a battlefield where electronic warfare has already begun are inaccurate due to electronic jamming. However, battlefield observation, which requires a large amount of material and computing power to receive, reconstruct, and reproduce radar emitted from multiple directions, does not differ much from reality.

Silent Hammer 680 quickly processed the electromagnetic waves it received, and confirmed that the results were not significantly different from the data on the combat information line. It compared the received data sent from elsewhere, confirmed that the noise caused by interference and discrepancies caused by electronic attacks were within acceptable limits, and expanded the receiving field even further.

The total amount of electromagnetic waves received by Silent Hammer suddenly increased. The electromagnetic waves were processed, and information on the battle airspace was extracted and sent to the combat information network, where it was then combined with other data to become more reliable and accurate combat information.

"Wha-aat?"

Marika groaned at the amount of radar wave data Silent Hammer received, the amount of information it processed, and the amount of data flowing through the network.

"Well, if you want to have a real space war, you have to handle multiple fleet battles of this scale in parallel, so maybe this amount of data is normal, but wow, what a lot."

"But I can't understand the situation just by watching the machine work."

Kiara, who is the chief operator, confirmed that the Silent Hammer was operating normally as a patrol boat, then turned to Marika.

"If you want to test the display, go ahead and try it."

"Okay, I'll do it. I want the display range to be as large as possible, so I'll centrally manage all the 3D displays in all the seats, and are you using a 3D display that would be bad if someone took over?"

"Yes, wait a moment."

Kiara and Chiaki switched some of the displays around them.

"Yes, it's fine." "This is good too."

"Wide-area inspection mode, highest display accuracy, um, color coding is fine for enemies and allies, and ship types are graphical."

Enemy, allied, and unidentified ships can be color coded, and even their ship types and sizes, but Marika chose the simplest setting.

"I'll turn down the lights. Set the display to minimum."

"Here you go."

The lights in the cockpit, which had been illuminated by the lights of the various displays and the interior lights, went out. The brightness of the display was also reduced to minimum, and countless points of light lit up the cockpit of the patrol boat, which seemed to have fallen into darkness for a moment.

"Wow."

The three crew members exclaimed at the fine light display, which looked like a 3D nebula in front of them.

A red point of light rose up like a cloud in the center of the cockpit. On one side, blue points of light were scattered and spread out like fireworks.

"Amazing..."

Marika muttered.

"I can see the whole battlefield."

"I wonder if this is what a goddess of the battlefield has."

Marika looked at Kiara, who was in the dark thanks to the lights being turned off.

"What's a goddess of the battlefield?"

"Oh, you've never heard of that? From ancient battles on land to modern space battles, there's a god who can see into everything from the overall battle situation to the details. If we combine this view with the data from each ship, we can see not only where they are and what's going on, but also what's going on."

"Well, the only thing we can be sure of is the situation of our training fleet, but there's electronic jamming in the enemy fleet, so there's probably some error."

Marika operated the console in front of her.

"Wait a second, I'll show you the triaxial and planetary orbits."

The planetary orbits of the Gaia star system and the triaxial coordinate system were displayed overlaid with red and blue glowing points. The space around the fourth planet Gaiapolis, where they had been flying around during their practical training after entering the military academy, was displayed as a reduced version of an orbital circle revolving around Gaia G4.

"Oh, easy to understand."

Chiaki, in the navigator's seat, looked around at the formation diagram that had appeared in the cockpit. Marika was fine-tuning the display.

"It's deformed to prioritize visibility of the fleet arrangement and battle situation, and the planets are displayed quite large to prioritize appearance, but I think that's about it."

The battlefield was converging into an airspace that could be crossed in about 10 minutes at the speed of light. The patrol network for the Gaia system had expanded to the outer planet orbits, but the formations that were about to start fighting were converging into the inner planet system, specifically the airspace near the fourth planet Gaiapolis.

"Is the deployment of 'Red' mostly finished?"

Kiara, still seated in the chief operator's seat, was also looking at the same data.

"The main fleet looks pretty spread out."

"I think that's because they're thinning out their formation to maximize their chances of contact. They'll be less susceptible to electronic jamming and won't be able to hide in the shadows, but Red has the advantage in numbers and strength."

Marika adjusts the brightness of the three axes and the orbital circle.

"Even if the attacking tactics turn into a melee, the basic principle of attacking a small number with a large number remains the same, so I think from now on it'll be a pursuit battle to find a formation that's advantageous for both sides."

While the red glowing spot seems to be thinning and expanding, the blue glowing spot is moving as if it's expanding into a red cloud that envelops it. Initially, Red was planning to unite their main fleet against Blue, so their deployment is slow, even though they have superior strength and numbers.

"The latest arrangement is like this, and Red is probably a little inaccurate because of electronic jamming, but I think it's about right within the margin of error."

Marika lightly overlaid a rough grid in units of light minutes on top of the three-axis coordinate lines.

"The display range is large and far away, so even if you look at it for a while it probably won't move much, but this is what it's been doing for the last twelve hours."

Marika brought up the console and rewound the three-dimensional display of the battle airspace. Red's main fleet retreated while shrinking, and Blue's formation also retreated toward Gaiapolis.

"Twelve hours ago, the carriers of Red's supply fleet had long ago been occupied by us, so at this point Red must have reconstructed their operation on the assumption that their previous operation plan had been leaked to Blue. So let's move forward in time from here."

Marika fast-forwarded the three-dimensional display on the console. The main fleet of "Red" heading for the fourth planet of Gaiapolis initially formed a tightly packed formation in a sharp spindle shape. However, as time passed, the formation rapidly collapsed, and the fleet spread out while maintaining a thin film.

"The Imperial Fleet, which has a large number and variety of ships, basically pairs up two ships of the same performance in anti-ship battles, and by bundling multiple pairs, they outnumber the enemy to ensure victory. However, even though we are a training fleet, we are also an Imperial fleet, so our tactics are the same. The enemy has increased the number of opportunities to meet the enemy and tried to overwhelm them with numbers, so our basic tactics are to split up the enemy while being chased and fleeing, and counterattack when they reunite or get into an advantageous position."

Marika fast-forwarded the battle situation to the current fleet arrangement.

"There is not much difference in the combat power of the Red and Blue, whether they are cruisers or battleships of the same class. Of course, there are strengths and weaknesses depending on the type and class of ship, but both will operate in a way that makes the most of their strengths while covering their weaknesses, so winning or losing will depend on how many combat opportunities they can increase and how favorable the situation is to start the battle in."

The battle situation has caught up with the current latest situation.

"Normally, the Red, who has more numbers, has the advantage, but in the setting of the exercise, the Red has to attack aggressively and inflict damage. If the Blue can run away for as long as possible and inflict damage while protecting the home planet, it may be judged a draw, or if they can divide the enemy in a melee and defeat them one by one, they may even be able to win. The inner planet system has its own patrol network, so they should be able to grasp the enemy's position and movements more reliably than the Reds, so it shouldn't be a bad bet."

"Our headquarters must have run simulations many times and calculated the probability of winning," said Kiara.

"I don't know what convenient setting they're using, but aren't they responding like this because they think they can win?"

"I think so, but I think it's also part of the plan to use the equipment of the captured enemy aircraft carrier to strengthen the patrol network."

"Well, if we can just watch from a distance for the rest of the graduation exercise, then all the hard work on the first day will have been worth it, but if that's how it goes, then we won't be able to earn any more points, right?"

"I wonder?"

Marika put her fingers on the console.

"If we use the current tactics to predict the future, then in the end, 'Blue' can't beat 'Red', which has a greater force difference. Well, graduation exercises are usually about putting the officer cadets in a disadvantageous situation and making them struggle, so it's only natural that the force setting is like that."

Marika fast-forwarded the image to the predicted future timeline instead of the recorded past image.

"Since the strength of each ship is not that different, the outcome is decided by how many times each ship can engage in anti-ship battles and which side starts the anti-ship battle in the most advantageous position. The exact positioning in the battle airspace is advantageous for "Blue" with its well-developed patrol network, but if "Red" chooses to engage in a melee, the only problem with close combat information is the position of the enemy in front of them, which can be shared by all ships. "Blue"'s basic policy is to drag "Red" around as much as possible and launch an anti-ship battle in an advantageous position, but no matter how optimistic the observation, in the end, it is advantageous to have more numbers. Especially if both sides are full of motivation."

With many participating ships, the number of battles predicted will be enormous. Although it is difficult to predict the future of each individual battle, it is possible to predict the entire battle by changing parameters.

"Even if the odds of winning in a battle between 'Red' and 'Blue' are 50/50, I don't think a cadet could achieve such a record against a veteran, but in that case, 'Red' will win because of its superior force. Even if they hold out for the rest of the time, they will definitely lose when the judges at the end of the exercise finish. If we set our win rate at an impossible 80%, we'll finally be able to bring it to a draw when the judges at the end of the exercise finish. It's a careless setting, but I don't think our headquarters is calculating it that differently."

Marika looked around the battle airspace, which seemed to be projected wider than the cockpit. The positions of the forces were deformed and not the same as the real thing, but it was enough to see the positions of the main forces, rear guard, and supply fleets of 'Red' and 'Blue'.

"So, I have a question for the forecaster who correctly predicted the hand-to-hand combat in the last battle."

"It was just a fluke."

"If we're expecting another operational scenario that would never happen in a normal graduation exercise, what do you think will happen next?"

After looking back at Marika's face, faintly illuminated by the bright spot on the 3D display, Kiara looked around the battle airspace once again.

"I mean, the attacking side is going to engage in some random dogfight, right? In this situation, what could be worse than a melee between two fleets this large?"

"I don't know?"

Marika also looked at the positions of the "Red" and "Blue" fleets, who were moving widely apart.

"But Red's plan is to bring the whole fleet into a melee, and even if Blue goes along with it, in reality, future predictions can be made quickly by comparing pattern predictions with the latest information. If they start a mobile battle and they think they can win, they'll continue, but if they lose, they'll quickly withdraw and move on to the next one. It's easy to say they'll bring it into a melee, but isn't it pretty unreasonable to continue in that situation?"

"If the battle information is correct and the computers are working properly, both sides will try to start the battle in an advantageous situation, so they'll look ahead and run away if they think they're at a disadvantage. In that case, no matter how many there are on both sides and how many opportunities there are for contact, both sides will just keep running away and there won't be a battle."

Kiara turned from the 3D display to Marika.

"Is that so?"

"I think battles usually start and end in ways that neither side wants."

Marika nodded.

"But, if this exercise were to go in the interesting direction you mentioned, how do you think it would turn out?"

"That way."

Kiara looked over the fleet's position on the battlefield once again.

"We've made great strides in the operation, and now it's going to get even more chaotic?"

Kiara looked around at the 3D display.

"What do you mean, it's just an exercise, so no matter how awful the operation is, no spaceships or people will be lost. It might even be a good experience. But it could get even worse than that..."

Kiara was deep in thought.

"At the very least, if the exercise ended with both sides running away to secure a favorable battle situation, it would be a poor graduation exercise and boring for the judges and the observers, but it wouldn't be terrible."

"Yesterday, even the freshmen who weren't supposed to be in the field were sent to the front lines and forced to do hand-to-hand combat even though the exercise was supposed to be a fleet battle."

Marika stared at the battlefield layout, which was gradually changing.

"In a melee fleet battle, you can bring it into any situation. If the exercise scenario is twisted in a bad direction again, I don't think there's any way we'd miss such a golden opportunity."

A clear bell rang in the Silent Hammer's cockpit. Chiaki tapped the display in her hand.

"Change of strategy, here we come."

Chiaki summarized the communication contents shown on the display.

"The patrol network should try to determine the type, ship model, and ship name as well as the placement of each of the Red's main ships."

The command communication network remotely instructs how to analyze and evaluate the data obtained. The crew of the patrol boat, which is just one of the antennas deployed in the patrol network, does not have to do anything just because the policy has changed.

"... What do you mean?"

"If we're just going to engage in a melee, we should only need to know the enemy's ship model and ship model."

Marika did not take her eyes off the slowly expanding formation.

"If you want to know the individual ship names, does that mean you want to know their role in the fleet?"

"That's amazing, that's amazing."

In a corner of the electronic warfare command room of the Stecken-class electronic battleship Carl Marie Isaac, Lynn was shouting.

"Even electronic battleships of this class can use all their computing power."

The interception strategy has changed due to the dispersion of the Red fleet's main force, and Blue is launching aggressive electronic attacks. If the enemy is dispersed, the defense network will be thinner, making it easier to carry out electronic sniping on specific targets.

However, there are simply too many enemies. Ours has four Stecken-class ships, but Red has nine, and the dispersed fleet has formed three pairs or one trio, each launching electronic sniping on the Stecken-class ships, and a long-distance blitzkrieg has begun.

The mission of Blue's electronic battleships is not just to intercept enemy electronic battleships. They are also required to process data from the patrol network that is spread throughout the Gaia system and determine the exact location and type of ship of the Red fleet.

Although the smoke screen, which cannot be used in quantities greater than what is on board, has not yet been used, both Red and Blue are using electronic jamming to hide their exact positions. If the exact vectors of friend and foe are not known, errors will accumulate in computer-generated predictions of the future.

The Blue, defending the Gaia system, has the advantage of being able to use a pre-constructed patrol network. With more observation points and more information to gain, the Blue can obtain more accurate and reliable information than the Reds. This in turn means that the Blues can predict future trajectories with greater precision, giving them an advantage in battle.

However, even in terms of sheer numbers, the Reds are still overwhelmingly superior, with more than twice as many ships. The Blues mobilized all of their information and computing power to move their forces in order to win.

The Stecken class, which have the greatest computing power of any active ship, have all four ships directly connected to headquarters, processing vast amounts of data while making predictions of the future. This is why the Grade Blues on the Kaiser Blade Calibers were running at full speed.

"Well, if you add up the total number of friendly and enemy forces, it's in the tens of thousands, and if you add in the aircraft and other things, it would be tens of thousands more, so if you try to calculate as accurately as possible the situation of them preparing for mobile combat while conducting electronic warfare and scattering, that's what you end up with."

Being a low-ranking officer who wasn't assigned any important tasks, Lynn was lucky enough to check the usage status of the ship's onboard computer while looking at the electronic warfare monitor.

"Almost 100%. They haven't used their boosters yet, and there's still room for network distribution, so it's not completely full operation, but if there's a war on this scale, even a super-large aircraft of this grade would be overwhelmed."

A sudden thought occurred to Lin, so she checked the calculation status of the Kaiser Blade Caliber.

"Hmm, processing information from the patrol network and checking information from other sources? I understand that it's a war, so you want a safe and reliable answer, but is there really a need to repeat the processing that the other side is doing and compare the results? If you can make the calculations and confirmations more efficient, won't you be able to increase the calculation speed?"

Lynn tilted her head.

"...Is that no good? If false information gets mixed in, if you don't check it, the false information will just work, so you can't move forward unless you check it even if it's time consuming. That's annoying."

Suddenly realizing this, Lynn checked where the Kaiser Blade Caliber's computing power, which should be plentiful, was concentrated. From friend or foe identification, encryption and decryption of communications, to predicting the future, a computer's computing power is used in all sorts of places. What is prioritized and calculated changes depending on the time.

Until recently, the electronic battleship Carl Marie Isaac's computing power prioritized future prediction. However, the order has now changed, and the focus has shifted to the accurate placement and identification of the enemy "Red" ships.

"I see."

Lynn called up the latest operation manual and checked the changes.

"You've admitted that you can't win like this, and have come up with a new tactic. What are you going to do?"

The electronic attacks and defenses of the "Red" enemy are still as intense as ever, but as a monitor, Lynn is not in a situation where she needs to make active adjustments or change shifts. After confirming that she can still take her time analyzing the situation for a while, Lynn called up the changes to the operation manual on the display.

"Let's determine the top command ship of the "Red" main force and focus our attack on it?"

Lynn skimmed through the lengthy operation manual.

"Um, so what you're saying is that we should destroy the "Red" main fleet starting with the flagship?"

Lynn looked at the three-dimensional arrangement of the "Red" main fleet, which was starting to disperse.

Thanks to information from the patrol network and repeated forced reconnaissance, not only the layout but also the types of ships of the Red main fleet are almost known. The enemy is the Imperial Third Fleet, which is organized with an abundant budget, and the types and names of the ships belonging to it have been made public, and their performance can be estimated with a fair degree of accuracy from the public information. Anyone who attends the same Imperial Fleet's military academy can know the attacking Third Fleet with almost exact accuracy.

Currently, there are over a dozen types of ships confirmed in the scattered Red main fleet. The fleet, organized for full-scale mobile combat, is mainly made up of battleships and cruisers, and there are no mother ships or auxiliary ships that are not suitable for artillery and torpedo battles.

To date, the layout and types of ships of the Red main fleet have been confirmed as definitive information. However, although the types and class names of the ships are known, the names of the individual ships and their exact roles are not known.

The flagship of the Red main fleet is the Nibelungen-class Joint Strike Command Battleship (TDS), Schwarzstein. The Red main fleet had twenty-four battleships of the same class in preparation for large-scale fleet battles, six of which were classified as command battleships like the TDS Schwarzstein.

"In other words, even if we took the flagship Schwarzstein, there were five more that could immediately take its place, and two dozen other battleships of the same class that were indistinguishable by appearance alone."

The Nibelungen-class strike battleship is the latest flagship of the Imperial fleet. It has been mass-produced while undergoing various improvements, and there are many variations.

The Joint Strike Command Battleship is a strike battleship that emphasizes offensive power and also adds strategic command functions. It is touted as having a command center function that can take command in all situations, from fleet battles in space to interstellar wars between star systems and landing battles on planetary surfaces.

"And there are half a dozen joint strike command battleships, including the flagship, and each has one heavy patrol cruiser as a backup. If the flagship sinks during a fleet battle, there are five deputy flagships waiting to take its place, and there are also half a dozen heavy patrol cruisers that can handle fleet command without any problems."

Lynn scrolled through the operation manual, which was written with a lot of hope and wishful thinking.

"You're going to pick out a dozen key targets from the enemy fleet, and then concentrate your attacks there to knock out the enemy's command, right?"

Lynn thought for a moment.

"It's been a long time since I've seen it, concentrating attacks on the enemy's flagship to try to turn the tables in one hit when you can't count on your allies' forces, but they know that, which is why they've carefully constructed their command and communication network."

If you enter a melee, you can expect the defense of flagships, which are normally protected by multiple layers of allied forces, to be thinned. If there are areas that remain thick even after thinning the formation to increase the chances of battle, you'll immediately know that there are people there who need to be protected.

"Well, it's true that if the enemy has chosen a melee strategy, then we, who are losing in terms of force, should be the target we should aim for, but picking out the command function from a lineup of battleships of the same type and pursuing them..."

It's not easy, but not impossible, Lynn thought again.

There is no difference in armament between the Nibelungen-class strike battleship and the joint strike command battleship. If you can optically observe the enemy's ship type in close combat, you may be able to identify the command battleship from the number and density of antennas deployed.

In addition, more battle information is concentrated on the command battleship than on other ships. It is difficult to observe the usage of FTL lines in the battle airspace in the first place, but if there is a spatial distortion that can be observed from the outside, that may be the point where information is concentrated.

"Since we're at a disadvantage from the start, I guess we need to make a move like this if we're going for a sudden turnaround."

Lynn pondered with a difficult look on her face.

"But Red isn't stupid. This level of development should be within the realm of expectation. So, if we were to use this to our advantage and set a trap..."

Lynn looked at the dispersing fleet's arrangement.

"Why don't we relay the command battleships one after another, disperse the functions and identify the flagship, and then hide the rest somewhere and don't put them on the front line from the beginning?"

Lynn thought further.

"In addition, if Red's tactics are limited to melee combat, even if we hit the chain of command a little, it shouldn't change the overall situation very much."

Melee combat is a tactic to maximize the chances of fighting when the enemy meets. On-the-scene decisions on the front line take priority, so even if there is no command from a higher-ranking ship, it doesn't have much of an impact on the battle situation.

"Even if we attack the Red's high-ranking command ship, it won't be very useful in winning, right? But, well, we might get good points in the judgement after the battle, so I guess that's the only thing I can think of that's effective at the moment."

The same information was also provided to the Bentenmaru, which was docked on the ground at the West Gaiapolis Spaceport and was watching the graduation exercises with the highest authority equivalent to a judge.

"We'll go into the melee and concentrate our forces on the attacking high-ranking command ship, right?"

Summarizing the changes to the new strategy that were sent over the Blue's command communication network, Hyakume tilted his head in confusion.

"I understand the policy, but is this useful in a situation where we're fighting randomly like in a melee?"

"In the case of a controlled fleet battle where computers can accurately predict the future"

Schnitzer said in a lecturing tone.

"What is required of the commander is a proactive and effective change of policy. If he can't do that, he will lose little by little and the situation will get worse and worse."

"If the computer predicts that we will lose, then we have to quickly change the current situation accordingly, right?"

Hyakume replied.

"With a fleet this tightly controlled, everything will move optimally according to the computer's prediction. If we still lose, then that means the current tactics are wrong, so we have to quickly retreat or switch to a different tactic. Is that understanding correct?"

"Yes."

Schnitzer nodded.

"The winning side doesn't need to change tactics as long as they're winning. It's necessary to prepare various countermeasures in response to changes in enemy tactics, but if you're winning, it's normal to just keep pushing forward. But that's not the case for the losing side. No matter what kind of comeback you prepare, it's a fool's tactic to stick to it when the computer predicts that it will fail."

"Has there ever been a time when computer predictions of the future of a battle were wrong?"

"Of course there have been. There have been cases where the information before the battle started was biased, the calculation results were distorted by the desires of the command center, or the enemy took over the battle information network and spread false information that led to incorrect predictions of the future, and the Imperial fleet suffered a major defeat just because they followed that."

Schnitzer didn't stop operating the console.

"But there aren't that many examples like that. There were a lot of examples like that in the early days when future predictions were actively used to judge battle situations, but overall it's been determined that leaving future predictions to a computer results in fewer tactical errors than when judged by humans."

"...Well, the people commanding the battle are amateurs, aren't they?"

Hyakume remembered a collection of lectures on strategic command that he'd read somewhere a long time ago.

"If a human with education and expertise makes a decision, the decision on the situation won't be that far off. If that's the case, then a computer that can gather information more widely and assess the situation faster than a human can make a more reliable decision, right? That's the logic."

"Exactly. And the longer it's used, the more refined its methods become and the more reliable it becomes. It's been a long time since humans could beat computers in tactical games with set rules."

"But even if Blue manages to destroy the top command ship of Red's main fleet as it intended, Blue's disadvantage won't change as long as it's in the melee that Red has started. Isn't that right?"

"If Blue can attack Red's higher-ranking command ship as planned, we can expect Red's response to Blue's tactical changes to be delayed. In space battles where the situation changes at the speed of light, if we can expect to delay the enemy's decision-making, then that operation is worth trying."

"I see."

Hyakume nodded.

"As expected of an officer cadet made up of the best and brightest in the galaxy, they'll do what they can, even if it's just an exercise."

Hyakume displayed on the display the exact location information of both allies and enemies that could be seen with the judge's authority.

Normally, the enemy can only see the information obtained by the enemy, and allies can only see the information obtained by their allies. In modern warfare, where electronic warfare is intertwined with confusion and deception, it is rare to obtain accurate information from the beginning to the end of a battle.

However, in exercises, the judges are able to obtain accurate combat information as an exception. By looking at the accurate information that both sides have as their own, it is possible to judge how close it is to the truth or how far it deviates.

In the Gaiapolis inner planetary system, "Blue," which has developed its own patrol network, has obtained more accurate information than "Red," which has invaded from outside the star system. The information "Red" obtains about "Blue" is somewhat less accurate. However, if hostilities actually break out and gunfire is exchanged, it is expected that the accuracy of combat information from both "Red" and "Blue" will increase significantly.

"So, what do you think?"

Hyakume said.

"Red will start a melee, and Blue will pretend to join in and attack Red's higher-ranking command ship. If you're in a position to manipulate the battle information, you can control the course of the battle no matter which side you're on. Do you think our hypothetical enemy will take advantage of this golden opportunity to get ahead?"

"...I don't know yet."

Coorie, who hadn't been in the conversation until then, answered in a sleepy voice.

"If it's a melee that's predicted to get this chaotic, I think you can control the course of the battle just by slightly processing the battle information on both sides, but I can't read what you want to do."

"What will you do?"

Hyakume asked back.

"You want to have a melee battle, don't you?"

"Well, it would be a spectacular sight if a fleet of this size were to engage in a maneuvering battle, even if it was just an exercise, but I don't think it's a situation that would be enjoyed by people who are interested in creating a battle situation that would normally be impossible, such as hand-to-hand combat against an aircraft carrier."

"Is that so?"

Hyakume switched his opponent to Schnitzer.

"Wouldn't a fleet battle of this size be very interesting to watch?"

"In a real battle, it would be."

Schnitzer replied.

"And while there are few actual battles of this scale in history, there are examples. Simulations are possible if it's just the settings, and in most cases, exercises will produce the same results as the simulation. If you can go to the trouble of changing the information in the command communication network, it's not a special situation that you would want to try."

"Even if it's an exercise, if you can watch a fleet battle of this scale, and even if you watch a melee from the front row, I thought it would be well received in various quarters."

Hyakume shook his head in annoyance.

"Well, it's true, if the exercise produces the same results as the simulation, then the result will be the same if you just go ahead and follow the scenario as it is. If curious spectators are expecting something bad to happen, then hmm."

While looking at the display showing the exact battle situation for both "Red" and "Blue," Hyakume called out to Coorie.

"Why don't we take a look at the odds table at the Numerical Strategy Research Group we found yesterday and try for the jackpot?"

"That's the thing..."

Coorie replied in a disinterested voice.

"Even if you give it a plausible name, it's still a game for bigwigs far from the front lines. It seems like today's game is getting a lot of attention because of yesterday's chaos, but when "Red" turned the tide of battle into a melee, no one expected any more groundbreaking developments with higher odds than that."

"Can't Totocalcio's forecasters come up with an unexpected battle situation?"

"If we could at least predict what kind of battle situation they're aiming for next, it would be easier to rewrite and monitor the battle information accordingly. Surely, there's no way they'd create such a perfect situation and then just watch as it happens, which would be disappointing, right?"

"If the hypothetical enemy's goal is to control the battle situation freely, they wouldn't create the situation to this extent and then just let it go with the flow."

Hyakume nodded at Schnitzer's words.

"Red, with its superior numbers, will increase the number of battles in a melee, while Blue will aim to turn the tables by destroying Red's chain of command. That's the basic policy, but what more outrageous developments can you think of?"

Schnitzer and Coorie didn't reply. Hyakume continued.

"It's up to your personal preferences. What kind of fleet battle would you like to see, Schnitzer? What kind of electronic warfare would you like Coorie to do?"

"War is not my hobby."

Schnitzer answered reluctantly. Hyakume shrugged.

"I know that, but if you could freely set the conditions, what kind of fleet battle would you like to play? You've played a fleet battle game as an admiral of the Imperial fleet, right?"

"It would be easy to wipe out the enemy with overwhelming force, but that wouldn't be a training exercise."

Schnitzer gave a very straightforward answer.

"It would be easy if we could just crush the enemy without thinking about expenses or cleanup, but in that situation, we probably don't even need a commander."

"Okay, okay, how about Coorie?"

"No, it's too much hassle."

"What?"

"Well, I have to do it because it's my job, but electronic warfare is troublesome, complicated, complicated, and a mess, so if I don't have to do it, it's easier and more convenient."

"Even if you take the trouble to get the Bentenmaru down to the ground and equip the bridge with that and bury yourself in it, it won't be convincing."

"All the troublesome stuff is left to the computer."

Coorie, buried in the operator's seat that has been expanded over and over, can only hear the voice.

"I'll try changing my approach and my perspective while watching the situation. No matter how much equipment I have or how much calculation power I have, the enemy is just too big."

"I see."

Hyakume looked at his watch. He checked the continuous working hours of Schnitzer and Coorie.

"You two are overtime. I'll keep an eye on you, so go and rest for a while."

There was no immediate reply. Hyakume continued.

"I'll contact you if the situation changes suddenly, and you two are probably both issuing various emergency alerts. It'll be a while before the front lines of both the Red and Blue teams overlap and the fighting begins. You two leave the bridge and go to the dining hall and have a meal and get some rest."

"Please."

Schnitzer pulled the seat back and stood up from the battle commander's seat.

"If anything happens, just call me."

"I'll take you up on that."

Coorie crawled out of the electronic warfare seat, rather than coming out.

"I'll be back as soon as I can, but don't push yourself alone."

"There's no way you can take on two regular fleets in an all-out fleet battle by yourself. Get some rest and recover your strength quickly. If you don't make sure you're at full strength by the time of the real thing, you won't win even battles you can win."

Schnitzer, who was in the battle command seat, and Coorie, who was in the electronic warfare seat, couldn't just leave their seats when they were in combat mode.

Schnitzer handed over his bridge duties to Captain Kaien of the Bentenmaru Marine Corps, and Coorie put the unit into automatic monitoring mode, set an alert, and left some of the work to Hyakume.

Hyakume had Sandaime, who was on break, return to bridge duty early to secure bridge personnel.

Following Schnitzer, who had left the bridge first, Coorie reported to the medical room. After undergoing the usual physical check by Misa, he was given the usual diagnosis that his physical performance had deteriorated to the point of becoming a problem due to overwork and lack of sleep. He consumed the prescribed medicine and supplements along with his meal in the dining hall and retired to his room.

When on combat duty, Coorie's policy was to avoid using drugs as much as possible. Using drugs allowed him to get efficient sleep even for a short period of time, but there was still a chance that he would not be able to respond in an emergency. He was aware that he was tired, so he changed into his training clothes as a substitute for pajamas and closed his eyes under the futon.

Even if he tried to sleep, he could not get his mind off the task at hand. Even though it was an exercise, what kind of situation was he looking for and where was he putting his hands if he was capable of controlling such a large-scale battle at will?

When problems become complicated and tangled, he went back to the starting point and confirmed his goal. No matter how big a problem he managed to solve, it was meaningless if the results were far removed from his goal.

Coorie remembered the call from Nash that had been the start of this job. Three students from Hakuoh Girls' Academy's Sea of the Morningstar and Sea of the Forest Star schools are being admitted to the military academy. Their purpose is to investigate a hypothetical enemy, whose name has yet to be determined even by the intelligence department.

The hypothetical enemy's purpose is to maximize the benefits of all involved by maintaining a state of war.

Thinking this far, Coorie blurted out.

"Got it!"

Opening her eyes, Coorie saw the remaining display on the display, which was set up so that she could see it even while lying in bed, and realized that she had been asleep. Several hours had passed since she had crawled into bed.

She tapped the display to check for any messages addressed to her. There were no urgent messages from the bridge or outside. She also checked her own physical and mental state. She didn't feel very tired physically. She didn't feel like she had slept, but her head was clear.

Coorie grumbled as he crawled out of bed. While changing from his pajamas into his bridge training clothes, he examined his idea from every angle possible to see if it was worth considering.

"...Can I do it?"

After washing his face in the bathroom in the room and putting on his round glasses, Coorie took a good look at himself in the mirror.

"Probably okay. If I can read the enemy's intentions, I can win this job!"

He stopped by the dining room to take out his bridge pack, and while drinking tea from a drink pack he had opened while traveling, Coorie jumped onto the bridge.

"I could read the enemy's intentions!"

Hyakume, who was in the radar/sensor seat, and Sandaime, who had switched the display from his regular engine monitoring to battle situation monitoring and was in the engineer's seat, turned around with their chairs.

"That's good news." "Eh!?"

Schnitzer, who had returned to bridge duty earlier, looked around at Coorie who was trying to sneak into the electronic warfare seat.

"Really?"

"First, let's check the situation. Has the battle situation changed significantly?"

Coorie looked around at the display on the electronic battle seat, which was still on with automatic response and mountainous surveillance. The battle airspace remained within the Gaiapolis planetary system, but the front line was expanding.

"How is the battle going?"

"Several skirmishes have already taken place."

Schnitzer skillfully summarized what had happened so far.

"Blue has decided on Red's higher command ship. They have set priorities and are preparing for a focused attack. Red has not changed its policy, continuing with the melee to maximize combat opportunities."

"Excellent!"

Coorie, who had completely slipped into the electronics battle area, put out his hand and gave the thumbs up sign so that Schnitzer and Sandaime could see.

"Then I guess I'm not wrong. The hypothetical enemy's goal is to keep the melee going! Their goal is to keep the melee going when computer predictions are so trusted!!"

The three men on the bridge looked at each other.

"I see..."

While thinking about this, Hyakume returned his seat to his console.

"Even if both sides go along with it, a melee situation is not something that can last long. Each ship can predict its future trajectory with a high degree of accuracy, so if it is obvious that it will lose, it will abandon it and withdraw. If both sides want to continue the anti-ship maneuver battle, they need to continue to have a chance of winning that they can expect, or that they think is worth trying. I thought that the melee would continue for a while because it is large in scale and there are many opportunities to meet the enemy, but as long as the battlefield is dominated by calculation, that is not the case."

"It is a basic principle that the outcome of a battle is decided 90% before the start of the battle. To continue a melee of this scale, and to keep both sides thinking that they have a chance of winning, it requires a certain amount of preparation, and once the battle begins, the situation must be controlled in detail. With such a complicated situation setting, it is worth simulating it using a real fleet in the exercise. What do you think?"

"That's an interesting point of view."

Schnitzer responded while conducting several simulations.

"It doesn't contradict what's happened so far or what we expected. If the enemy's goal isn't to start a battle between the large fleets, but to keep it going, then a lot of the developments so far make sense."

"I see, so their goal isn't to start a battle, but to keep it going..."

Mumbling, Hyakume glanced at the electronic battle station, which was filled with devices.

"How did you come up with that idea?"

The continuous sound of keyboard tapping stopped.

The answer came after a sigh.

"I remembered that idiot Nash's first request."

"Was it a request from an intelligence officer? When we met our captain and his crew at the Chinese restaurant at Shin-Okuhama Airport?"

"That."

The continuous sound of keyboard tapping was heard again.

"I still don't know the identity of the hypothetical enemy, but I understand that their policy is subtly different from the Imperial Fleet. The Imperial Fleet's goal is to win, but the hypothetical enemy's goal is to continue the war. Both the "Red" and "Blue" participating in the exercise are fighting with the intention of winning, but if the goal of the one trying to control that is to continue the melee, then that's a reason to go to the trouble of controlling the situation on both sides through the exercise."

"I see."

Hyakume stretched with a sigh. The sound of typing stopped again.

"...What's with that reaction?"

"Well, I just thought you were listening to the client's story surprisingly seriously."

"I submitted the report."

The typing resumed. "We shared all the information that idiot Nash gave us at the beginning."

"We've come this far, and now you've completely forgotten about that first thing. But you remembered a good story. Whether it's right or wrong, if we know the enemy's goal, it will be easier for us to make our move. We're not in time for the full battle yet."

"There are problems."

"There are a lot of them."

Coorie answered Schnitzer immediately.

"What?"

"If the enemy's goal is to bring both fleets into a melee and keep it that way, if he has the means to do so, then we can assume that the enemy not only has insight into the battlefield situation, but also has the calculation power to provide both sides with enough battle information to predict that they are at an advantage."

"That's right."

Coorie readily agreed.

"We need to keep creating a situation where all the ships in the battle will continue to fight according to the computer predictions. To keep the mobile battle going, we need to keep a balance by simultaneously processing individual and overall situations. Even if we manipulate the battle information while making it look like it's within the margin of error, we need to do incredible information processing and calculations, and we also need feedback when the predictions and reality differ."

There was a pause for a sigh.

"It's easy to say that we'll keep two large fleets fighting in a melee, but we have to take care of the immediate tactics of the thousands of battleships and cruisers that are actually fighting mobile battles, and the strategies of all the enemy and friendly fleets that are divided into main forces, rear guards, and supplies at the same time. Even though we can get more accurate battle information than the parties involved in the exercise with the same judgement authority as us, we're trying to keep a series of situations that would never happen normally, so just estimating how many workstations we need to build to keep the results we want is exhausting."

"It's going to be on an enormous scale," Schnitzer said.

"Probably, if the frame is the same size as the command and communication network of the Imperial fleet... that's it!"

"That's it."

Coorie's voice was full of confidence.

"It's called a command and communications network, so it's thought of as a network, but a FTL network that can steadily transmit and process such a large amount of information is a collection of top-grade hypercomputers, probably numbering in the tens of thousands in the Imperial fleet. Even the Joint Chiefs of Staff has a ton of high-end equipment depending on their budget. I believe the Imperial fleet can wage war against up to two enemy forces of the same size as itself at the same time."

"A war on two fronts?"

Schnitzer said.

"The Imperial fleet is built to fight two galaxies at once. That's why, even though the Empire's total military power is enough to overwhelm the Rebels, they are conserving it and not deploying it to the frontier."

"That means, of course, that they have the command and communication network and the computing power to manage it to fight two intergalactic wars at the same time. With that kind of backup, no matter how many there are, surely they can calculate and manage every detail of a fleet battle within a star system?"

"The only place that can possess computers of that scale and use them for their own purposes is none other than the Imperial fleet, right?"

"The hypothetical enemy is probably deeply infiltrating and using both the Joint Staff Headquarters and the command and communication network."

"That's troubling."

Hyakume said, not sounding too serious.

"Because I'm using a bundle of Kaiser Blade Calibers, I wasn't worried about the calculation power, but when it comes to an opponent like that, I wonder if the forces I have will be enough."

"Don't worry, there's no problem."

Coorie said happily.

"No matter how powerful it is or how much calculation power it has, a computer only works according to the user's instructions. If we're not competing against each other in terms of performance, and the opponent is an intelligent being that takes advantage of an opening to do something wicked, there are plenty of ways to win."

"Let's confirm the victory conditions."

Schnitzer said.

"This time, all we're being asked to do is confirm the existence of a hypothetical enemy that should be somewhere in the Imperial fleet. We're not being asked to fight against the enemy's objectives, nor are we being asked to stop them."

"Yes, we don't have to win...we don't have to win."

Coorie's hand stopped.

"...But will our operatives on the front lines be able to stop at such a lame victory condition?"

A black rectangular object with white border

Description automatically generated

The instructor likened the two fighting forces clashing on the battlefield to titans with a thousand eyes and a thousand arms. The titans see every situation on the battlefield with their thousand eyes, and use all kinds of weapons and armor in their thousand arms depending on the situation.

In modern battlefields, the thousand eyes are observation equipment such as radar and sensors, and the weapons and armor in the thousand arms become battleships and fighter planes.

The headquarters analyzes and processes the information obtained by the thousand eyes, and the weapons in the titans' arms, which are controlled by their nerves, become fighting forces controlled by a communication network.

Even if a titan has just one legendary divine weapon with outstanding power, it will not have a big impact on the battle situation. However, if even one of the titan's eyes has clairvoyance, that alone can give the titan an advantage in the battle.

Right now, the "red" titan and the "blue" titan have recognized their opponents in the airspace they have set for the battlefield, and are swinging down the weapons in their thousand arms.

"It's started."

Marika, who had been remembering the instructor's sung tone in a fleet battle class that she felt she had heard a long time ago, was brought back to reality by Kiara's voice.

"It's started?"

There had been several clashes at the front lines of the battle lines that had stretched out before. They were clashing with each other's high-density, high-power radars for fire control, but they had not yet exchanged fire with open gun ports.

"Yeah, this will probably be the first."

Kiara displayed one of the front lines that she had been monitoring in parallel on a 3D display that used the entire cockpit.

The "Blue" pair of units that the "Red" pair of ships had been pursuing were being sandwiched between another unit that had circled around.

"I don't think there's any way we can escape without a bang."

With the distance between us and the enemy this close, there was little advantage for the "Blue" to have its own patrol network to know the enemy's exact location. The surrounding friendly forces have detected the exact location of each enemy, so the mobile battle has already begun.

"The computer says there's an 85% chance of an engagement," Chiaki said.

"Oh, it's gone up to 93%."

Marika gave a wry smile as she imagined the atmosphere on the front lines, where the battle was about to begin. She was currently in a patrol boat away from the battle airspace, and her position was one of the eyes of a giant with a thousand eyes, and at the same time, one bundle of its optic nerves. It was the job of the headquarters to judge what they saw and felt in terms of the battle information, and to make the decision on how to move one of the thousand arms as a result.

"Um," Marika enlarged the situation on the front lines of the "Red" and "Blue" forces, who were about to make contact, into a 3D display.

The pair of "Red" mobile cruisers had circled around the end of their escape trajectory, and were approaching the pair of "Blue" mobile cruisers while widening the gap between them. The two "blue" ships, keeping their formation close together, decided on a course for the shortest possible contact trajectory with the two "red" ships.

"The two "blue" ships intend to make a hit-and-run move when they first make contact with the "red", but because they changed their trajectory, the pursuing "red" will catch up with them."

Marika slid the computer's battle prediction to the future side of the timeline.

First, the "red" and "blue" mobile cruisers will engage in a hit-and-run battle, after which the "red" pair will pursue the "blue" pair as they take a breakaway trajectory. They will engage in a parallel battle, heading in the same direction and exchanging fire.

The surrounding "red" and "blue" battleships will surge forward like prey caught in a trap. Predicting that much, the computer stopped further calculations.

"They've diverged."

Muttering, Marika returned the timeline to the present. Perhaps because of the intense jamming signals they were sending at each other, the two "red" ships close by, about to attack the two "blue" ships, were instantly covered in digital noise.

Next, Marika greatly expanded the display range. The pair of "blue" and "red" on the verge of contact were instantly engulfed in countless bright spots, and the enemy and friendly fleets were displayed spreading across the entire battle airspace.

Marika slowly moved the timeline of the computer's future prediction. After the first white flashes indicating combat occurred at the time of contact, countless white sparks scattered throughout the entire airspace, as if priming the airspace.

"I'm going to try moving a few things around."

After getting permission from the two people present, Marika tried moving the scale and timeline around in various ways. Centering on the point of initial contact and war, he would look at the movements of hundreds of ships in the vicinity, narrow it down to a few dozen, and then expand the range even further.

The trajectories of the super-fast moving battleships were displayed in a reduced range that would take a dozen minutes at the speed of light, so in real time they looked like slow motion. The timeline could be freely moved for both past records and future predictions, so the trajectories of individual ships and fleet movements could be played back as many times as desired.

The timeline was moved over and over again until white sparks indicating combat were seen, and the process was repeated until the scattered sparks spread throughout the entire battle airspace.

"What's wrong? Did you sigh?"

"Hmm? Well, I thought I probably wouldn't become a goddess on the battlefield."

In response to Chiaki, Marika returned the timeline to the present.

"Looking at the whole picture, it's not as predictable as where the battle will start or how it will spread, and you don't know where or how the next battle will occur. The command ships and headquarters on both sides are pouring all their resources into it, and they're probably moving their fleets forward, predicting hundreds of moves ahead, so once they start fighting somewhere, it's over, and then it's like an avalanche of battles breaking out everywhere, but because it's all so mixed up, the enemy keeps changing one after the other as they go through hit-and-run tactics. I'm amazed they can keep up with such complicated fleet battles."

"It's not real people who are watching and moving the thousands of ships, enemy and friendly combined, that number double digits if you include the aircraft carriers."

Kiara said.

"Only a giant with a thousand eyes and a thousand arms or a computer can update the confirmed status of hundreds of thousands of units and give instructions to move in the direction of victory based on the changing future predictions, tens of thousands of times a second."

"You were planning to become a goddess of the battlefield?"

When Chiaki asked, Marika shook her head vaguely.

"I thought that if I had eyes that could see the entire battlefield, I could at least understand what the goddess of the battlefield is looking at, or her mood, but that's not possible. I don't know how the chain of events is connected from the first battle to the next, and even if I look at the whole picture, all I can see is the white sparks flying where enemies and allies mix together and the start of the battle."

"Isn't that the case for most people?"

Chiaki switched the display to the latest battle information.

"Let's see what actually happens. We're closing in."

The Red and Blue cruisers were closest to each other, forming a two-ship formation to cover each other's blind spots while applying intense electronic jamming. The Red cruisers suddenly split up and increased in number, likely the result of an electronic attack on the Blue.

The Blue cruisers fired first. The first shot emitted a somewhat diffuse beam toward multiple targets, attempting to use thermal observation to find the exact location of the enemy ship.

Firing a shot would let the enemy know their exact current location. Having confirmed the exact location of the enemy ship with the Blue's gunfire, which had started the battle first, the two Red cruisers, like veterans, fired their guns in a line of fire.

After confirming the current position of the enemy ship they came face to face with, the paired mobile cruisers took evasive maneuvers to avoid each other's line of fire, and closed the distance to the closest point while scattering disruptive curtains to attenuate the attack beams.

The exchanged gunfire was of training specifications with sufficiently reduced power output to prevent damage even in the event of a direct hit, but the electronic attacks, release of disruptive curtains, and evasive maneuvers were all performed just as in real combat. The reason why a large-mass combat ship can perform evasive maneuvers that defy the laws of physics is due to the technology of making full use of inertial control with large capacity and high-powered engines in order to simply increase the survival rate, ignoring cost-effectiveness.

The only thing exchanged was low-power training rounds with no destructive power, used to confirm hits, and the rest of the mobile cruisers performed maneuvers just like in real combat, scattering intense sparks on the 3D display as they passed the closest point of approach and entered a turning trajectory for the next encounter.

As officer cadets, they are taught the basics of anti-ship combat in class. Marika sighed as she thought about the tedious search and electronic warfare before the encounter, and the hassle of fighting afterwards.

"It would be easier if I could just watch."

Kiara reached for the 3D display and brought up the latest battle information.

"The result of the initial battle was a near draw, and the hit rate of the training fleet, which fired first, was a little worse than that of the third fleet, which fired later, but the provisional evaluation didn't even result in minor damage. You fired so many shots, so you didn't hit any?"

"Looking at the hit rate, it looks like you were hitting quite a lot."

Chiaki looked at a list of the results of the naval gunfire, which were evaluated after each shot.

"Because it's the first battle, I think they focused on scattering low-charged cannons to save time. You see, if you fire a full charge at once, it takes a long time to fire the next round."

"Even cruisers have ridiculously thick armor, so I don't think this level of charge will penetrate it."

Marika also has the same data displayed in front of her.

"Depending on where it hits, it could damage radar, sensors, and communication systems, so I think that's what we should aim for now."

"Of course, sensors and antennas are all about sensitivity, so they can't be armored, but both the makers and users know that they're weak points, so if they break, they'll just cut them off and deploy a new one from inside, or replace them with a new antenna."

Chiaki recites the response she learned in class. Both Barbaroosa and Bentenmaru have mountains of alternatives and spare parts for when an antenna is destroyed, and can automatically repair or replace simple damage.

"Not only that, they'll also deploy unmanned probes and drones, and unless it turns into a long-term battle without supplies, they'll repair themselves quickly and return to functioning even if they're judged to be destroyed."

"So this is going to continue on and on?"

Kiara replayed the battle in front of her. Marika nodded.

"Both the enemies and allies are sturdy, so you don't want to get into a serious fight right from the start and sink all of a sudden, and in this state it'll be hard to beat them one-sidedly, and there'll be tons of opportunities to engage in combat, so if the timing is right, you might be able to attack in greater numbers than the enemy, so I guess I'll just wait for that to happen."

"How long is this going to continue!"

"Until it's over."

Marika answered simply.

"In a real battle, the loser would step back once the outcome was more or less clear, but this is a time-limited exercise, so as long as the crew's stamina lasts, and we don't get judged as sunk, I think we can keep going."

Kiara looked gloomy and checked the current time.

"Are we going to keep going like this for another day and a half?"

"Well, I don't think it'll be the same forever."

Marika reverted the battle record back to the start of the first battle.

"Both sides have fired this time. Now that we know which reactions are real, both the "red" and the "blue", both enemies and allies will lock the reactions and confirm them. The reactions are passed on to the surrounding observation networks of both enemies and allies, and they will be tracked as long as the battle continues, so their location is known more clearly than other ships that have not fired yet, and the radar reflection pattern should have been read. Therefore, ships that have participated in a battle once will be more likely to be targeted from the second time onwards. However, the target will basically declare their presence the moment they fire, so they only have an advantage in the first move."

"I see."

Kiara shook her head with a disgusted look on her face.

"The enemy ships we can see now are the result of long-term observation, but they are not confirmed. But from now on, every time we fight, they will be confirmed and confirmed as targets for tracking. Does that mean that the number of enemies we have to track will increase from now on?"

"No, no, it should be less work."

Marika said.

"If the enemy fires even once, we can confirm the reaction. Even if they don't fire, if they get close and can get reliable data, we can lock on the reaction, and ignore and erase any other reactions that may be enemy ships that we see. Of course, the enemy is not a weak opponent that will not launch electronic attacks again once it has been locked on, so the next time they encounter the enemy, they will probably launch as many electronic attacks as they can on the enemy in front of them, but the moment they fire, the enemy's location will still be confirmed again. Therefore, the longer the battle continues, the more reliable information about the enemy's location and identity will be obtained by both enemies and allies, and the number of enemies that need to be tracked should decrease."

"I see..."

Kiara expanded the display range and looked around the battle airspace.

"But we have to keep track of all the enemies unless they decide to sink and leave the battle area."

"Well, that's how space battles work, and that's what we're here for."

Marika moved the cursor on the future prediction, hoping to see how the results of the current anti-ship battle affected the future prediction. She tried playing back the results over and over to see how much the prediction before the battle differed from the results, but she couldn't see any clear changes.

"One battle alone won't change the future prediction that much, will it?"

"So you're doing all this troublesome stuff with all the patrol networks?"

Chiaki looked around at the 3D display showing the battle situation.

"This is a big problem."

"Probably, it's harder for the people on the front lines who are actually operating battleships and cruisers in mobile combat."

"They're all the latest models, so aren't they all automatically responding?"

"The battle situation changes at the speed of light, so if we responded manually every time, we wouldn't be able to keep up, but it's the people on board who decide which changing situations to prioritize and how to respond to."

Of the two cruisers in the same battle, "Blue" suddenly changed its trajectory. Noticing that "Red" reinforcements were circling around its predicted trajectory, it took a breakaway trajectory and took a trajectory to join the friendly ships approaching to provide support.

"The optimal tactics can be quickly predicted by a computer, so it's fine to use that, but since it's a battle with an opponent, the chances of winning can easily change. Even if the odds of winning are slim, the people on board have to decide whether to continue with the current tactics, or to choose other tactics and take a different trajectory. And as long as the battle continues, there will be constant moments of having to make decisions."

"Just because it's left to the machine doesn't mean it's easy."

Kiara nodded.

"I was taught that too. I remember. No matter how much the computer tells you the best move, if you leave it to the machine, even if you win the battle, the operation may fail."

"That's why soldiers participating in the operation, from the front line to the supply line in the rear, must understand the purpose of the operation and work to achieve it. The purpose of the operation may change as the battle progresses, so you can't let your guard down when gathering information even during the battle, and you have to respond immediately if the situation changes."

"The situation is changing?"

Kiara cast a suspicious gaze around the 3D display of the battle space.

"Won't it stay like this in the exercise settings?"

"Both sides will probably win, so the battle will probably continue unless the command suddenly orders a retreat."

In the current exercise settings, a direct attack on the enemy command center is not considered. In the strategy planning stage, a plan to abandon the set battlefield and directly attack the enemy fleet command center was proposed, but it was prohibited and excluded from the start because it did not fit the purpose of the exercise. Similarly, the command center on the Gaiapolis main planet is not included in the attack targets for the attacking side.

In the current exercise settings, both the attacking and defending sides can focus only on the battle situation in front of them. Since the purpose is to let the cadets experience a large-scale fleet battle between regular fleets, developments that end the battle instantly are excluded as much as possible.

"But the situation continues to change whether the battle starts or not."

Marika also looks around at the three-dimensional display, where blue and red shining points are intricately intertwined like cumulus clouds.

"If the number of contacts increases and a launch is confirmed, we will be able to pinpoint the location of the enemy ship. If we make contact, we may be able to determine not only the type of enemy ship but also its specific name, and depending on the analysis of the observation data, we should be able to identify the higher-level command ship. If neither of the two sides has suffered particularly heavy damage from the previous contacts, 'Blue' should concentrate their forces on 'Red's' higher-level command ship, and if 'Blue's' intentions become clear, 'Red' will have no choice but to respond."

"This is mostly based on 'Blue's' wishful thinking, but our headquarters should have predicted this much, right? What happens after that?"

Marika looked at Chiaki's face.

"Unless it's a situation where a ragtag fleet is fighting without a chain of command and going with the flow, I don't think a melee situation can last very long, so once we have a target, we should resume fleet operations to concentrate our forces on that target. Even if there are multiple "Blues," if they concentrate their forces on a specific target, "Red" should realize what "Blue" is planning, so they should use their fleet to intercept them, and the melee should end there."

"Are you not confident?"

"Of course not. If things go according to our predictions, then the overwhelming advantage of the "Reds," who are superior in numbers, won't change, and there's no way for "Blue" to turn the tables. Will it go that well? Besides, if the melee setting is as it is, even if we destroy the enemy's higher-ranking command ship, there's no way that the disadvantage in numbers of "Blue" will be overcome."

"That's true, isn't it?"

"But really, we should have been able to finish the graduation exercise with our powered suits ready to go and on standby, and we shouldn't have had to go out solo in a patrol boat like this, so it can't go according to such a typical prediction that anyone could make. So when I think about what will happen, I can't think of anything."

"What if we simplify it as much as possible?"

Kiara looks around at the 3D display, where white sparks are now flying all over the place.

"Because there are so many of them, the situation is complicated and difficult to understand, but since there are only two opposing forces in conflict, why not simplify it as much as possible?"

"Simplify?"

Marika once again looked around the battlefield, where countless red and blue shining points spread out.

"If you simplify it to the extreme, there's roughly twice as many enemies and half as many allies, so it's a two-on-one battle, one of the enemies is the flagship, and we're doing all sorts of things to try to take out the flagship?"

"That would be very easy to understand."

"But both the enemies and allies are very sturdy, so eventually the one with the greater numbers will win, but by then both will be in tatters."

Marika looked back at the battle area in shock.

"In other words, even if we do such a large-scale battle, the damage just accumulates."

"That would be the case in reality, but since it's an exercise, isn't the only thing they accumulate?

"But they're using weapons and programs for real combat. Since it's an exercise, whatever they do to train the crew should be good enough to gain experience, but the only result is damage assessment? So who benefits from that?"

"Both the cadets participating in the exercise and the soldiers of that fleet will gain experience from experiencing such a large-scale fleet battle. It's up to them to use the experience points to level up, but at least the next time they do a large-scale fleet battle, they'll feel like it's their second time."

"Maybe the manufacturers can get more data?"

Chiaki interjected.

"If such a large fleet clashes with a setting similar to a real battle, and even though it's an exercise, the damage judgment will be strict like in a real battle, so manufacturers who provide spaceships, onboard equipment, and necessary equipment will be able to obtain operational data that is just like in a real battle, right?"

"It's a fleet battle between the training fleet, where new equipment is deployed first, and the third fleet, where current equipment is fully used, so of course the manufacturers will be happy."

Kiara thought deeply. It is said that hundreds of manufacturers, large and small, are needed to build a single combat ship, and if it's an entire fleet, there will be thousands of companies involved in delivery, maintenance, inspection, and supply, from giant weapons to everyday items.

"...In other words, after all this trouble, the ones who benefit the most are the companies that do business with the Imperial fleet?"

"That is, as long as the Imperial fleet exists, whether they exercise or not."

As the number of encounters and battles between the "Red" and "Blue" fleets increased, the nature of the two major forces deployed in the Gaia system gradually became clear.

If they were just staring at each other across a vast space, they would only be able to determine the general location of the fleet, but not the exact coordinates of each individual ship. However, once they engage in combat, both "Red" and "Blue" can determine the exact location of the enemy ship and its reaction, and continue to track it. The data obtained by a single ship or aircraft participating in the battle is shared with the entire fleet through a combat information network.

Even if an enemy ship's latest coordinates could not be identified due to electronic attacks and electronic jamming, once they engage in combat, their exact current location can be tracked. After the engaged ship leaves, the tracking is handed over to a nearby ship, and the next ship to engage rewrites the information to provide even more detailed information.

After the first engagement, the battles between "Red" and "Blue" increased exponentially. High-speed anti-ship battles take place in almost all of the vast battle airspace. The number of battles per unit time increases as Red plans to increase damage to Blue by increasing combat opportunities, and Blue takes on the task of identifying Red's command ship.

Based on hit-and-run tactics between high-speed ships, the policy of using all available ships in combat opportunities without leaving any loose forces was used to develop all kinds of aerial battle patterns.

The damage per battle is not that great for either Red or Blue. However, some ships can be hindered in consecutive anti-ship battles if even minor damage accumulates.

The mobile cruiser that accumulated minor damage and was the first to be judged as medium damage and withdrawn from the battle to recover came from the defending Blue. The next ship to withdraw was from Red. Blue, which took advantage of the terrain, was able to return to the battlefield faster through damage control than Red, which extended its supply lines too far.

"No, that's not true."

Even after the battle began, the display continued to predict the future, and Lynn muttered with a frown.

"Even if the enemy is predicting tactics at the same level, it's impossible for this evenly matched battle to continue like this, as if it was balanced, right?"

The optimal tactics calculated by the computer are calculated to minimize damage to allies and maximize damage to the enemy. The enemy fleet is also an imperial fleet, so they will also take optimal tactics, but the fleet composition, positional relationship, and battle objectives are different, so the situation will not be equal.

Even if it was equal, the situation will continue to change, so it will not become a war of attrition even if the tactics are left to the computer. If it did become a war of attrition, it would be because both commanders were really stupid or there was no one in the chain of command who could judge the tactics.

That's what Lynn was taught in her classes at the military academy. The more ships willing to fight, the more maneuvers are available to gain an advantageous position, and once the number reaches double digits, no living, sentient being can compete with a computer that can calculate every possible situation.

The basic principles of space combat don't change much, whether it's a fleet battle between large ships or an aerial battle in which aircraft carriers attack enemy fleets. However, as the number and specialized aircraft deployed in each field increase, the tactics available, trajectories, and predicted developments increase exponentially.

Predict all developments and choose which tactics will give you the most advantage in the battle. In space combat, where all situations change at the speed of light, the nerves of living organisms cannot handle optimal tactics, including the vectors of evasive maneuvers.

"I know that when it comes to calculation ability and reflexes, it's pointless to fight a computer."

Muttering to herself, Lynn didn't stop tapping away at the keyboard.

"But even if it's running on a program that's like an ideally woven fabric of God, it's the same human being who thinks about what to make the computer do. The high stacking of molecular chips makes the calculation speed virtually infinite, so no matter how poor the program, it doesn't seem to slow down, so it's just a trick, and tactical prediction programs and prediction apps that have been in development for years are just going to be complicated and bloated and useless. No matter how advanced and improved the program is, we're not human enough to trust it unconditionally."

The orders given to "Blue" via the command communication network are changing in detail. Thanks to the battle starting and the progress of the enemy fleet "Red"'s placement and individual ship identification, the exact locations of the command ship that should be the priority target and the reserve ship that will take over fleet command in an emergency are also becoming clear.

The tactical orders of "Red", which has superior numbers, seem to have not changed, and they still want a melee that increases combat opportunities and causes damage. Unlike "Blue's" tactical orders which can be confirmed with certainty, "Red's" orders must be read from the enemy's movements.

The computer, which is aware of the movements of the enemy's entire main fleet, has determined that "Red's" tactical orders have not changed even after the battle has begun. It has determined that "Blue" is adapting its tactics flexibly, and with the advantage of the terrain, they are able to fight on equal terms.

"But you know what, I haven't lived a simple enough life to take such wishful thinking seriously."

As a defender, the training fleet can use the patrol network already deployed in the Gaia system. Therefore, its observation accuracy of the enemy fleet is higher than that of the attacking "Red".

"That's double the frontal force! And how can a training fleet made up of amateurs fight an even fleet battle against a Third Fleet full of veterans?!"

Whether you're a trained veteran or a rookie who can barely read the instructions, there's not much difference as long as you leave the battle procedures to the computer. That's why the Imperial Fleet crew must make the right decisions at the right time in their respective positions and control the battles that the computer conducts. Candidates involved in fleet battles are required to give the right instructions to the computer in every situation.

"If you can always win by leaving it to the computer, there's no need for people on board the ship. After all, spaceships and computers are operated by humans, so don't underestimate me, you idiot!"

During a break from work, I noticed a red dot flashing in the corner of my vision. This is a personal message. Red is official, meaning it is work-related, and needs to be checked as soon as possible.

"What can this lowly guy do?"

Lynn opened the message while working.

"A call from the tactical instructor? In the middle of a real battle like this? Instructor Luca?"

Lynn stopped as the message, written in a plain military format, appeared on the display. She didn't remember the instructor's name.

In the military academy, students' instructors are fixed for each department. Instructors rarely change during the course, and it is customary for instructors who have never met before to introduce themselves first.

"I feel like I've heard the name Luca somewhere before..."

The message listed a direct line channel. Not knowing what it was, Lynn pressed the channel and connected the line.

"*Cadet Lynn Lambretta, right?*"

A voice call came through the earphones she had left on. The display indicated that the person communicating with was on board the same electronic battleship.

"Yes, this is cadet Lynn Lambretta."

I tried running my own check program on the communication line. It was immediately rejected. Lynn frowned and looked back at the communication display. It didn't seem like a secure line that would suddenly reject programs that would eavesdrop on communications or check encryption codes.

"*This communication will not be recorded.*"

The voice I heard contained a smile.

"*I have a secret conversation that I don't want to be recorded. Please leave the monitoring of the battle situation to the computer and come out.*"

"Understood."

After touching the display to end the communication, Lynn looked around the electronic battleship Carl Marie Isaac's electronic battleship electronic battleship electronic battleship command room where she worked.

Although it was called a command room, Lynn's workplace was one of the countless extended subspaces that were equipped in triple or quadruple radial layers around the central command room. The cadets who were ordered to work were all second- or third-term newbies, and there were many empty seats with no dedicated operators. There were no instructors, and the fellow cadets were doing their best just to monitor the ever-changing battle situation.

"Cadet Lin, you've been called in."

As Lynn lowered her seat from its usual position, she called out.

"I'm leaving the field for a while. I don't have any work to take over."

Listening to the perfunctory voices of "hey, ready?", Lynn left the sub-operation space with a two-digit number at the outermost edge of the electronic warfare command room. Since all the ships were in combat mode, the normal lighting was turned off to make the display lights stand out, and just like the command room, the corridor only had dim emergency lights on.

The uniformed instructor was waiting for Lynn in the corridor as she left the command room.

"This is Cadet Lynn."

Saluting the instructor, Lynn's eyes widened as she saw her face.

"I'm Luca, the tactical instructor."

Luca returned the salute brusquely and walked ahead.

"I'm changing locations. Please follow me."

"I-Is it the captain's quarters?!"

After confirming his entry, Luca closed the door, and at the same time, the communication with the relevant departments that he was monitoring with his earphones was cut off. Looking around the stately reception room decorated with luxurious furnishings, Lynn spoke up. Luca put his index finger over his mouth as if to tell him not to talk yet, and slid his finger over a card-shaped sensor he had taken out of his uniform pocket.

"Even though it's an electronic battleship, it's a training fleet ship. The captain's room is like a model room for a catalog."

Luca swept through the captain's room, which was used for entertaining guests and holding meetings with senior officers, with his sensor to confirm that there were no abnormalities that could be detected.

"I borrowed the captain's quarters and made it an electronically sealed room and installed communication protection. The records are filled with randomly generated chatter. Finally we can talk."

"So you must be Luca from the Bentenmaru?"

"I'm glad you remembered."

Luca placed the sensor, still on, on the reception table.

"You didn't ask any questions before coming here, which saved me a lot of unnecessary trouble."

"Weren't you working on the Bentenmaru?"

Lynn sat down on the reception sofa as suggested.

"Aren't you down at the dock at West Gaiapolis Spaceport and firmly entrenched in the fleet's network?"

"I leave that to experts like Coorie and Schnitzer."

Luca sat down in the seat opposite and confirmed that the sensor on the table hadn't changed.

"I'm a navigator, so if Bentenmaru doesn't move, I have nothing to do, so I'm acting as a liaison for now."

"Liaison..."

Lynn looked at Luca, who was dressed in the uniform of an Imperial Fleet officer, for a long time.

"...So, you're saying that the network has become so messed up that it's safer to move around as a bare-body?"

"As expected of someone who loves Coorie, you get the idea out of the way so quickly."

"Wow, I'm honored."

"Yes, we've confirmed that the virtual enemy has penetrated so deeply that we can't say it's safe without a bare-body liaison to communicate information without using the network."

She glances at the sensor display and confirms that there have been no changes in the electronic and radio conditions in the captain's quarters. After hearing Luca’s story, Lynn leans forward from the sofa.

"So, have you narrowed down the enemy's true identity?"

"The only thing that's been confirmed at this point is their location."

Luca shook his head briefly.

"I could have predicted from the beginning that they were hiding at a fairly high level, judging from how they were able to use their hands so freely, but we've managed to pinpoint their location."

Luca said it frankly.

"It's the command and communication network of the Joint Staff Headquarters."

"Command and communication network..."

Lynn dropped her head in disappointment as she mentioned the name of the Imperial Fleet's highest-ranking communication network.

"Yeah, I thought so. I knew that communication networks are built using whatever is available, regardless of whether they're high or low-ranking, and that they'll end up being a messy, makeshift thing regardless of whether they have the budget or the means, but I had hoped for no reason that the Imperial Fleet, and especially the Joint Staff Headquarters, would at least have a command and communication network in operation, so I guess that's how it is."

"That seems to be the case."

Luca nodded easily.

"This information is only from a few hours ago. Well, I don't know if Bentenmaru hasn't updated the information yet, but I wonder if they don't have enough new information to warrant an update, or if they don't want to leave unnecessary traces on the network and let the enemy know."

"That's typical of you."

Lynn laughed, remembering Coorie's round glasses.

"In other words, an electronic warfare expert is fighting an information war with someone they have to be careful of."

"I don't know if the other party thinks of us as enemies, or as opponents in an information war, and I hope they don't notice and it doesn't become an information war, but yeah, that's it."

"Am I right in thinking that the hypothetical enemy is trying to control, or is controlling, the battle situation of the exercise through the command and communication network?"

"I guess so."

Luca nodded.

"Now that we've seen a situation that would never occur in a proper exercise, where a candidate landing ship shoots down an aircraft carrier in hand-to-hand combat, it's safe to say that the hypothetical enemy is controlling the exercise situation through the command and communication network."

"For what purpose?"

Luca shook his head in response to Lynn’s question.

"I don't know. Since they're hiding at a fairly high level and making careful preparations to manipulate the situation, I think they're doing it for a reasonable return, but at this point I can't say anything for sure about who the hypothetical enemy is and what they're plotting to do this."

Hearing Luca’s words with a sigh, Lynn asked more questions.

"Why do you think that is, Luca? If you can infiltrate the command and communication network and even rewrite battle orders at will, you should be able to achieve what you want without resorting to illegal means. But what do you think the hypothetical enemy wants, trying to manipulate such a large exercise from behind the scenes?"

"Are you asking about the possible strategic direction of the hypothetical enemy? Or are you asking about my personal opinion?"

"Well, if Bentenmaru has already decided on the strategic direction of the hypothetical enemy, I would love to hear about it, but no, I know that we can't hear the latest situation since we've cut off regular contact and are on radio silence. I'd really like to hear your feeling or intuition as the navigator of Bentenmaru, deciding the course."

Lynn leaned forward even further and lowered her voice.

"Well, what do you think about the current situation? Don't you think there's a lot that's strange?"

Luca nodded. "I agree with your analysis that it's strange. From the perspective of the Imperial Fleet's policy of choosing the optimal tactics for the greatest profit, having such a large fleet continue to fight in a melee would not be of much benefit, even if it was just an exercise. It would be a good experience for the crew to experience a melee, but I can't imagine the next situation in which it would be useful."

Luca glanced at the sensor on the table.

"I can imagine a situation in which large fleets get into a melee, but I can't think of a reason to maintain a battle situation in which forces that are supposed to have their own circumstances in reality have fallen into a melee. There's no way that someone like the Joint Chiefs of Staff couldn't imagine something like that. So the hypothetical enemy that created this situation is probably just having fun."

"They're having fun..."

Lynn repeated what Luca said. Luca nodded.

"That's right. The virtual enemy creates various impossible battle situations and watches them, but if you ask why they do that, it's just for fun."

"...So..."

Lynn took a breath to gather her thoughts.

"The virtual enemy isn't an application that runs inside a computer somewhere or appears and disappears on a network as needed, but a living, sentient being with a will..."

Luca looked at Lynn again, a bit surprised.

"Yes, I don't deny that idea. If a program is supposed to function purposefully, it would be set up to achieve its goal in the shortest possible time, and it wouldn't choose a direction that would amuse or satisfy curiosity. If it's meant to achieve an irrational goal, there must be a human who set it up that way."

"Well, I can't deny the possibility that the person who created the program or the person using it is a total loser."

Lynn leaned back on the comfortable sofa.

"However, I can't imagine how an intelligent being who can use the Joint Staff Headquarters, which is so difficult to maintain its position, and the command and communication network, which must take time, effort, and budget to keep running properly, could be so purposeful and incompetent at the same time. So, I don't know yet what conclusion Bentenmaru will reach as Bentenmaru, but I can understand that someone somewhere is manipulating the Joint Staff Headquarters and the command and communication network just to create an interesting situation."

"That's all for now."

Lynn picked up the sensor on the table and checked the records. Since closing the door to the captain's room, there has been no reaction that could be considered external intervention or eavesdropping.

"You know that the longer a private conversation goes on, the greater the risk of being eavesdropped on. If you don't have anything to confirm, please go back to work."

"Heehee."

Lynn didn't get up from the sofa while giving a half-hearted reply. Luca waited for Lynn to say something.

"Hmm..."

Sensing that he was expecting her to say something, Lynn started to mumble.

"I'm sure the hypothetical enemy is controlling the command network, right?"

"That's what I've heard."

"If that's the case, isn't it too much of a stretch to operate our fleet separate from the command network?"

"Eh?"

Luca looked at Lynn’s face again.

"Well, I know that the Imperial fleet's operations are centrally controlled through the command network. But if the top-level command network is invaded by such a pesky virus-like app and it's impossible to remove it immediately, I think we could get better results by operating the fleet without the command network."

"Continue..."

As he was told, Lynn recalled the basics of battle command and fleet operation and put together a logic.

"Fleets and soldiers share information from the front line to headquarters through a combat information network. The command and communication network is used to provide overall command based on the shared information, and the headquarters uses it to analyze and evaluate the vast amount of combat information collected from the entire battlefield, as well as information from outside the area, to move the fleet and issue optimal tactics from the front line to the rear. That's the standard model, and the effect is greater the greater the force. I understand that, but if the command and communication network can't be completely trusted, wouldn't it be better to fight without it?"

"What would happen if that were to happen?"

"It's not just the headquarters that shares combat information. It's probably impossible for a single soldier on the front line to understand the situation on the entire front line with just his bare brain, but for now, one fighter plane, a powered drone, With a computer the size of a single ship, you can receive and analyze all the battle information, make optimal decisions for the situation at hand, and share the decisions and actions over the network. Of course, it's less powerful than a command center that's waving around a bunch of monster superframes, but I don't think today's computers would come up with a different, optimal move. In other words, even if the fleet is separated from the command network and acts on its own, the battle situation won't change unless the tactical objective of victory changes. In fact, I think it might even be advantageous to be separated from the command network."

"The opponent's fleet, the 'red', will remain under command under the command network, while our 'blue' will be separated from the command network and make its own tactical decisions."

Luca smiled.

"If we were to separate Blue from the command and communication network and let it act independently, the hypothetical enemy, who should have infiltrated both the command and communication network and the Joint Chiefs of Staff, would notice right away, but what if we could separate it from the command and communication network without being noticed?"

Luca smiled even more wickedly.

"That would be pretty interesting."

Luca stood up from the sofa in the reception area.

"Come on. I'll contact Bentenmaru."

"From here?!"

Lynn looked around the captain's office in shock.

"You came all the way here because there's a risk of being monitored no matter what you use, from the combat information network to the command communication network, right?!"

"It takes three hours at the earliest to get back to the Bentenmaru from here. Considering that there's only a day and a half left in the exercise, the benefit of proposing tactics immediately is greater than the risk of the communication contents being stolen."

"But how?"

"Money will tell the difference."

Lynn opened the door to the personal communication booth equipped in the captain's room.

"I've been issued several VIP-class communication passes for occasions like this. If I want to communicate with Gaiapolis from the electronic battleship during the exercise, I think the on-site head of the General Opticalix Investigation Department would be best."

Lynn pulled out a crystal card from a stack of communication cards he had taken out of his uniform pocket.

"We'll use GT&T's official line, not the military network. Records of communications will remain, but if the contents are leaked, it will affect GT&T's credibility, and depending on the location, it could even develop into a diplomatic issue. If they've done this much and the contents of the communication are leaked, and they've completed countermeasures while we're preparing, then we'll just have to accept that they were just that bad."

"But you're not going to give up."

Beckoned, Lynn followed Luca into the communications booth. Lynn closed the door to the communications booth.

Of all the communication lines that GT&T has laid, both within the Empire and on the borders, the strongest hotline is touted for its encryption strength and reliability, and can even be used for diplomatic lines. Although the communication fees are high, it is trusted and users range from the top brass of major companies to government agencies.

General Opticalix is ​​the largest company in the military's electronics industry. Lynn connected the communication line from the corporate service of the electronic battleship Carl Marie Isaac to the general agency in West Gaiapolis.

"*Removing the electronic warfare specialist from the Bentenmaru in combat mode and escorting him to the company to communicate must mean something significant, right?*"

If the line is connected from the general agency in West Gaiapolis to the Bentenmaru, the chances of anything being overheard will increase dramatically. Coorie, who was politely welcomed by the transport ship Tom & Jerry 37, which was undergoing heavy maintenance in a warehouse at the port, sent a communication device that he could use freely with his agency manager authority, and while still in his robe, he bit Luca from inside the communication monitor.

"I think I can meet your expectations."

After showing his crew ID for a moment on the camera, Luca pulled Lynn so that she could get in the camera.

"I heard an interesting proposal from one of our candidates during the undercover operation. I'll let you decide."

Luca slipped out of the seat and pushed Lynn in. Lynn raised her hand and greeted Coorie in the communication monitor.

"Um, it's Lynn Lambretta. What should we do about the ID?"

"*Luca is with you, right? I believe you. So, what is it?*”

“Sorry, let me confirm the current situation first. The hypothetical enemy is nesting in the Joint Staff Headquarters or higher up in the command and communication network. I heard that from Luca, but has anything changed your understanding since then?”

“*No.*”

Coorie answered briefly.

“*It's circumstantial evidence, but there are only reinforcing factors regarding location and authority. The contact information and current situation have basically not changed.*”

“The hypothetical enemy is not just giving advice to a few personnel like a helpful ghost, but is controlling the entire situation of the exercise through the command and communication network, is that correct?”

Coorie's glasses lit up on the communication monitor.

“*No doubt about it. We haven't seen any confirmed cases of tactical orders being changed between sending and receiving them in the command and communication network, but yes, at least we're convinced of that. Otherwise, how could a carrier be shot down in hand-to-hand combat or would the main fleet be stuck in a melee?*'

'I understand. I'm sure my understanding is far from yours, but here's a suggestion. Can we separate the Blue forces from the command and communication network and operate them independently?'

Coorie on the monitor picked up his glasses and put them back on.

“*Is this possible or not? With the authority that Bentenmaru has now, it's possible to pull the entire Blue fleet and personnel away from the Blue headquarters in Gaiapolis. But what benefit would there be from doing that?*”

'Well, the immediate benefit is that one of the fleets participating in the exercise, which the hypothetical enemy should be completely controlling through the command and communication network, will suddenly lose control, so the hypothetical enemy will no longer be able to control the situation.'

Lynn spoke the logic she had tested many times to explain to Coorie.

A cartoon of a person sitting in a plane

Description automatically generated

"Another secondary benefit is that if one of the fleets suddenly loses control, the virtual enemy will search for the cause, which will allow us to more reliably expose the virtual enemy."

"*I wonder how the Blue fleet will act if it is no longer under the command and communication network? Won't it be at a disadvantage?*"

"If both sides are moving toward a sure victory, Red, which can process information based on greater calculation power under the command and communication network, should have the advantage in tactical prediction. But I don't think that will happen under the current circumstances. The ratio of forces is clearly unfavorable to Blue, and the situation has not changed, but the current fleet battle is still fifty-fifty and the melee continues. In other words, tactical command via the command and communication network based on future predictions is not the optimal move to win, but rather seems to be moving to keep the melee on an equal footing."

Lynn laughed mischievously.

"There's no way that you guys haven't noticed that, right?"

"*Not a bad read.*"

Coorie smiled for the first time in this communication.

"*If, as Lynn predicted, the hypothetical enemy who controls the command and communication network is trying to keep the melee going, then if "Blue" gets out of their control, then it may be possible to put an end to this messy situation. But if the hypothetical enemy is controlling an unfavorable force ratio to maintain an even melee, then wouldn't "Blue" be at a disadvantage if they get out of the command network?*”

"If that happens, it's inevitable that we'll be at a disadvantage, since it wasn't set up for us to win easily. Another thing is that if the hypothetical enemy is trying to maintain a chaotic situation, they may instruct Red to use unnatural tactics to match our movements. In a fleet battle of this scale, there's no way they'd be manually checking and judging the situation every time, so I think they're probably using auto-balancing and making automatic judgments to make tactical decisions. If that's the case, I don't think the battle situation will change all at once."

"*You should stop wishful thinking that the enemy will move in a way that's convenient for you. Also, although it's an attractive idea to pull Blue out of the command and communication network, but if the goal is to drag out the hypothetical enemy, shouldn't we do it from somewhere else, rather than from Bentenmaru, who has equal authority in the command and communication network?*"

"Somewhere else?"

Lynn asked again.

"Where is it?"

"*If we take control of the command network, the virtual enemy will probably notice that "Blue" is out of the command network right away. Ideally, we should take it out of the command network before the virtual enemy notices, so that they can notice something is wrong and check what's going on. I'll take my time to see how the virtual enemy, who thinks they have the entire situation under control, notices that the situation is out of their hands, and what they do when they notice it.*"

"That's fine if you take it out of the command network like that, but even though we work in the command room of an electronic battleship, we're still low-ranking apprentices. How in the world should we take such a big job as taking the whole fleet out of the command network?"

"*The Bentenmaru, which has the same authority as the Joint Chiefs of Staff, will back you up. If you weren't just playing around at the military academy, you would have at least secured a network of contacts and secret lines that successive cadets have built up over time. Can't you do something about that from your side?*"

Lynn was thinking deeply about what Coorie said.

"You mean hacking into our internal network from the inside, right? Well, it's not impossible if I'm given enough authority in my seat, but..."

Lynn looked up.

"In other words, if Bentenmaru uses this as a back door, first he can rip out the Blue HQ line from the command network, and then the command networks of each ship."

"*I'm trying to have fun*"

Coorie glared at Lynn through her round glasses.

"*You can use whatever you want, but how in the world are you going to contact anyone in this situation where you can't even have a private conversation without using a company hotline like this to prevent wiretapping? Unless you can connect your desk to Bentenmaru with Tus-Ka, you won't be able to use a back door or anything.*"

"How about a battle information line?"

Lynn chose her favorite from the several options she had in mind.

"The security is minimal, and it's a channel that's assumed to be intercepted by the enemy, but there's a lot of information being sent, from the current positions of all the ships to combat targets and observation data. There's a melee right now, so a flood of information is overflowing from the combat information line. Rather than sending messages that could be broken on a high-strength encryption line with low traffic, I think it would be better to use the combat information line and listen in, and by the time they find what they're looking for, the training schedule will be over."

"*I told you to stop wishful thinking.*"

"But I can't think of any other good way to do it. Even if you keep this line as it is, if I wanted to connect my workplace to here, I'd need some extra equipment, and if I started to interfere with the command communication network, I'd be marked as a priority target not only by the virtual enemy but also by the instructor."

"Maintain this line?"

Luca peered sideways at the communication monitor.

"Are you going to stay in the captain's office the whole time? I don't think anyone will use it until the training is over anyway, but isn't it a bit obvious?"

"*If we use a simple means of communication, we have to plan our operations assuming that it will be intercepted, so it's going to be a lot of work.*"

Coorie grumbled.

"*It's a spur-of-the-moment plan, so we have to improvise without any preparation.*"

"If it's a battle information line, it's easy to set that up."

Lynn said.

"Well, if we set up fixed channels with Carl Marie Isaac and Bentenmaru, it would be like advertising that we're up to something evil, so we'd have to make up some dummy channels, or we'd have to freeload on different lines each time and let various things slip in, but the training fleet at the military academy has a rich legacy built up by talented seniors over the years. There's a wide variety of channels, from personal calls to idle chatter with a large group of people. There are also personal lines that can be used even during battle, but they're conspicuous so I don't recommend them."

"*So, how do you plan to separate the 'blue' from the command communication network?*"

Coorie asked meaningfully. Luca left the lines to the two of them and checked to see if the analysis results of the card-shaped sensor hadn't changed.

"I'm not in a position or with the capacity to report to our headquarters and persuade the top brass, so I'll use emergency measures. Are you planning to do the same?"

"*That's the only way. If they tried to get the upper echelons to agree to cut off the command and communication network, the entire galaxy would know about the Blue's strategic shift at that point, except for the Red. But can they continue fighting by cutting off the command and communication network while maintaining the Blue's military strength?*'

'Fortunately, I'm on an electronic battleship, so I think I can peacefully use the attack methods that I would normally use on enemy command networks against our allies.'

'*Are you planning to launch an electronic attack on our command network? That's not peaceful.*'

'I don't like it, I'm just safely disconnecting our allies from the command network that could be taken over by the enemy and disrupt us.'

'*Can you do it peacefully? Can you make it look like you're under command from the disconnected command network, and make it seem like Blue isn't making its own decisions, but is being controlled by the command network?*'

"In a melee, the strategy won't change much from the command ship focused attack anyway. The best tactical prediction won't get much different results whether you use the cheap ones or the command center's superframe, and even if you use a FTL line, it will take more time because there is a lot of data to gather. At least while the main forces are fighting each other in a melee, I think the battle situation won't change even if they are cut off from the command communication network, but this is also wishful thinking."

"*The hypothetical enemy is using the command and communication network to force a continuous melee.*"

Coorie muttered. Lynn instinctively leaned forward towards the communication monitor.

"Are you sure? Is the hypothetical enemy actively interfering with the command communication network to maintain the melee state!?"

"*Yes, I've been checking it under that assumption ever since I realized that a while ago, but I haven't found any evidence to the contrary until now. So, if the hypothetical enemy, who is trying to maintain a state of chaos through the command communication network can no longer control their forces as they wish, they will definitely take action. If the enemy is trying to force an evenly matched battle, it may be to one's advantage if one side loses control and tries to win. Well, that's just wishful thinking, though.*'

Coorie sticks out his tongue.

Luca says, looking at the sensor.

"If the strategy has been decided, hurry up and hold a thorough meeting. Even if it's on a company channel from an electronic battleship during an exercise, if you make a long phone call, you'll attract attention."

Lynn looks at Coorie on the communications monitor. Coorie nods.

"*If we talk too slowly, all the trouble you took to pull me out of the Bentenmaru and bring me all the way here will be for nothing. How can we separate the Blue fleet without letting the command network know about it, and still be able to continue with the exercise? Do you have any good ideas?*”

"Taking over the enemy's command system (control) is a big move that can decide the outcome of a network battle. In a normal battle, you can move the enemy forces as you like without letting them know that they've been taken over, but this time, instead of taking over and controlling them, you just remove their control, and it's an allied command and communication network, and fortunately, we're currently at the top of the command system. So how about a scenario where Red's infiltration attack on the command and communication network is successful, and Blue notices it and cuts off the contaminated command and communication network?"

"*If that were to happen, the command and communication network, including the Joint Chiefs of Staff, would immediately know that "Blue" was no longer under their command. What would you do about that?*"

"Of course, the moment we are removed from the command and communication network, it will be obvious that the Blue HQ is no longer under unified command. It would be better for the enemy to continue to believe that they have taken over the Blue command and communication network and that it is within their control, so I think we should continue to command the Blue as long as it does not contradict the battle information network. However, in order to do that, we will need to modify and update the battle information, so can you do that?"

"*That's like asking you to create and stage an entire battle situation.*"

In the communications monitor, Coorie thought for a moment.

"*I think we can do that. However, we have to keep changing the battle information without letting the command and communication network realize that our forces are out of control, and in order to see the movements of the virtual enemy, we have to make them realize that they are out of control at some point.*"

"I'll leave that to Bentenmaru."

Lynn laughed.

"Our immediate task is to defeat 'Red' in the exercise, and if we can get the entire fleet out of the command network for that purpose, I think we can do it without arousing suspicion from the hypothetical enemy, but then we have to pull the hypothetical enemy out of the command network afterwards... well, should we really be thinking that far?"

"*It would be nice if you could do that.*"

Coorie grinned.

"*The cadets' main enemy is the Third Fleet playing 'Red', not the virtual enemy. We'll deal with the virtual enemy ourselves.*"

"I'm not sure," Luca interjected.

"If the command and communication network has been taken over by the virtual enemy and is controlling the battle situation, wouldn't it be better to tear up not only the Blue but also the Red command and communication network? The current tactical goal of the Blue is to focus on the Red command ship, in other words, to attack the Red command and communication network. If that's the case, wouldn't it be quicker to shut down the Red command and communication network as well as the Blue command and communication network?"

He said that, and Lynn and Coorie looked at each other through the display.

Lynn spoke first.

"It's not impossible, is it?"

"*Well, it can be done from the Bentenmaru, but if it's discovered later that you've illegally interfered with the command and communication network, it'll be a scandal that will involve not only the graduation exercise but also the Joint Staff Headquarters. It would be fine if you wiped out the virtual enemy, but the Intelligence Department probably doesn't want that, and it would probably make the cleanup dozens of times more difficult.*"

Lynn looked at Luca behind her. Luca shrugged.

"I don't think it's worth going that far with the contract."

"*Also, the purpose this time is not to annihilate the virtual enemy. It's to prove its existence and to investigate its identity as much as possible. To achieve that, I think it would be more effective to hide only half of it and see what happens, rather than taking complete control of the command and communication network. We still don't know the exact location or identity of the virtual enemy.*"

"Cadet Lynn Lambretta, you're back."

After returning to the subspace of the electronic warfare command room, Lynn verbally reported.

"Nothing to report, nothing to communicate. Returning to duty."

Listening to the perfunctory greetings of the cadets working in the same room, such as "welcome back" and "good work," Lynn returned to her seat. Just by looking at the display in the command room, it was clear that the number of battles was increasing.

After sitting down in her seat, Lynn returned to her position and looked around the revived display. Battles were increasing throughout the area. However, since most battles are not parallel battles where ships going in the same direction fire at each other, but rather counter battles where ships pass each other and there is hit-and-run combat, the damage to both sides is not that great. And the computer predicts that the opportunities for combat and the damage will gradually increase.

"Now then,"

Lynn checked her system to see if any strange bugs or viruses had infiltrated it while she was away from her desk. No abnormalities were detected.

"Well then, let's get to work."

Lynn reactivated the displays she had turned off and checked the latest battle situation on the three-dimensional display that appeared around her. It was the same as the situation she had glanced at when she returned to the command room.

Putting on a headset, Lynn checked the display superimposed on her field of vision. She ran her fingers over the console and control panel, updating the display to the latest situation.

While doing her original duty of monitoring the electronic warfare, Lynn checked the communication lines. Other than idle chatter, no important messages were coming in on either the public or private channels.

Confirming that the cadets in the room were busy with their own work, Lynn tried flicking the Myradodo's electronic warfare control network.

In front of her were the electronic warfare status being carried out by Carl Marie Isaac, including attack and defense, as well as future preparations. Carl Marie Isaac was continuing his aggressive electronic attacks against the Red command communication network. In the electronic warfare with four of the same Stecken-class electronic battleships, Blue is gaining the upper hand as the battle situation changes and they are shifting from defense to offense.

"As expected, we can use the base headquarters in Gaiapolis and Red has to deploy their own electronic battleships, so if we take the time, we will have the advantage."

Lynn switched the battle situation display.

"However, even if we earn some points in electronic warfare, the overall battle situation is still favored by Red, who has more numbers. So, will we be able to turn the situation around in one hit, or will it become a losing battle?"

Lynn switched the 3D display to the latest status of his army's command and communication network.

"Oh, the monitor-only restriction is gone."

Even if Lynn uses the normal procedure to view the operation status of the command and communication network from her seat near the end, she can only monitor (monitor) and cannot touch the network. However, as she had discussed with Coorie in the captain's office, administrative authority has been added to Lynn’s seat.

"As expected of Bentenmaru, you work fast."

Lynn checked the list of permissions added to her desk.

"Wow, with this many expanded permissions, it'll be much easier to do my job."

Lynn put her fingers on the headset, erased the displays in her field of vision, and looked around the battle command room, making sure there were no prying eyes.

"Okay, then, shall we start playing against the command communication network?"

Lynn suddenly stopped her fingers on the console.

"If this were a real battle - no, even in a training exercise, it would definitely be an act of aiding the enemy and a betrayal. I'll do my best to see if I can pull the main force of 'Blue' away from the command communication network by myself."

Lynn thought that Bentenmaru, who should be on the ground of Gaiapolis, would not be an ally, so she reconsidered.

"No, there were two more pirates on our side."

Lynn checked the current location of the patrol boat Silent Hammer 680 belonging to Myradodo, where Marika and Chiaki should be assigned.

"I wonder if they're doing well? Well, there's nothing to worry about with those guys."

Silent Hammer is positioned as part of a patrol network that was built to surround the battle airspace in order to provide reliable information to allies who are continuing the melee. Lynn noticed that several enemy forces were moving toward the patrol network that should be away from the battle airspace.

"Oh dear."

Lynn confirmed the true nature of the reaction while moving at high speed outside the battle airspace where the fleet battle was taking place. In a melee between battleships and cruisers, there is no role for small aircraft that have almost no armor. It seems that "Red" is trying to disrupt "Blue's" patrol network by launching small aircraft and combat boats that cannot be used in a melee between fleets in between anti-ship battles.

Blue has also noticed the attack on Red's patrol network, and a pursuit force is being deployed from the Blue's main force, which is engaged in a fleet battle, and from the guerrilla fleet in the rear.

"We won't be able to pursue or intercept in time," Lynn muttered after predicting the force's deployment.

"Still, we can't send any more reinforcements in the current situation. Well, Marika and Chiaki are with us, so do your best to survive."

Pinning the situation to the corner of her eye, Lynn checked the operation status of her army's command and communication network.

Combat information from all of Blue's armies is collected by the network to the headquarters. When a battle situation requires a knee-jerk response, it is often handled by the judgment of the field or those just above it, without raising the situation assessment to the headquarters.

The battle situation of all armies is then processed, analyzed, and evaluated by computers at various levels, from the front line to the headquarters. The most important data that flows through the command and communication network is tactical predictions based on combat information, which are calculated and confirmed by computers at each level, and then issued to the front lines.

"At first glance, it seems plausible and constructed with flawless logic, with no gaps, but..."

Lynn muttered to herself.

"In reality, it only seems safe and secure because everyone is supporting it, covering up the course of events and expediency with budgets and materials. This time, we're just asking them to look away for a moment to suit our convenience. Well, is that about right?"

While keeping an eye on the "Red" attacks on the patrol network from the corner of her eye, Lynn displayed the network structure of the FTL lines that support the command and communication network in front of her. Since she couldn't display something that was unrelated to the task at hand or the battle situation in a large 3D display, she adjusted the polarized display so that only she could see it.

"Wow, as expected of a command and communication network that requires the utmost safety and reliability for the military. It must cost a lot of money. Now, I wonder how I can get them to look away without noticing."

A black rectangular object with white border

Description automatically generated

"We got a reply."

Chiaki, who was in the navigator's seat, said bluntly.

"They say they'll allow self-defense actions as much as possible based on on-site judgment."

"Well, I guess that's what they'd say."

Marika was watching the attacking forces of "Red" approaching Silent Hammer 680.

"I don't know about actual combat, but if it's an exercise, if it's shot down, it will just disable one of the relay points. If we let the new trainees defend the scene, they can gain valuable combat experience without risking their lives. What should we do?"

The front line was also approaching the "Blue" patrol network, which was located even further out than the expanding battle airspace between the main fleets. Carrier-based aircraft launched from the main fleet were deployed with the aim of individual attacks on the "Blue" patrol network surrounding the battle airspace.

The patrol network is made up of countless unmanned probes, patrol boats that control them, and scout ships. The information obtained is fed directly into the combat information network, becoming valuable observational information.

The information that each unmanned probe can obtain is limited, but by combining and analyzing the information obtained by the many probes scattered over a wide area, it is possible to obtain highly accurate information over a wide area.

However, various jamming signals rage in the battle space, interfering with the observations and transmissions of the unmanned probes. A communication network with the probes cannot be established unless they are close by, and reliable information cannot be obtained.

"What kind of future predictions can we trust from computers?"

"There are so many parameters that need to be set, it's a pain."

Marika frowned in the captain's seat.

"First, should the victory condition be the survival of this boat or the overall trend of the battle? If it survives, should it survive unscathed or should it be acceptable to sustain moderate damage that would make it impossible to continue fighting but would still allow the crew to survive? If it is completely destroyed, should the boat's functions survive as long as possible or should the maintenance of the patrol network be emphasized?"

"We can't just sit back and let our patrol network be torn to shreds either, so there are forces being sent out from the main fleet in front and the guerrilla fleet in the rear to intercept the Red attack force. Shouldn't we just hold out until it reaches us?" "Is that so?"

"That's true, but anyway, if we stay here like this, I can predict for sure that the patrol boats with their antennas spread out will be quickly crushed by heavy fighters equipped with anti-ship weapons. So, as for what we should do, it seems they only propose a few strategies and calculate the probability."

"It's useless."

"Well, if we can leave the whole war to the computer, there's no need for people like us to go out of our way to get on and go to the front lines."

"So, what are the options?"

Kiara in the electronic warfare seat asked. Marika answered.

"Simply put, stay or retreat."

Marika switched the three-dimensional display that showed the entire battle airspace to a model diagram centered on her own boat, the Silent Hammer 680.

"As you can see, the attack force, which is believed to be the Red's aircraft, is expanding toward the outer edge of the entire battle airspace. The computer and our headquarters have determined that the goal is to disable the Blue's patrol network, which is deployed much more densely than the Red's. We want to maintain the patrol network, so we've sent out pursuit and interception units to attack the Red's aircraft, but unfortunately they won't arrive in time for the attack force heading toward us."

Marika extended the predicted trajectory of the attack force approaching the patrol boat and overlapped it with the predicted arrival of our troops.

"Probably about 20 to 30 minutes. So, the tactics we can use are to avoid the attack force and retreat, or to stay here and maintain the patrol network."

"Right now, we're looking after roughly 1,000 probes."

Kiara made countless bright spots flash on the periphery of the diagram centered on the patrol boat.

"It's not a big number compared to all the probes observing fleet battles in the inner planetary system, but if we retreat, there will still be a hole in the patrol network."

"But this patrol boat is just a 'Red' boat that has been sent out with minimal maintenance, so it's unarmed, right?"

Chiaki, who was in the navigator's seat, checked the equipment on the 680 again.

"It does have some pom-pom guns for self-defense, but they're only good for angering the aircraft carriers that have come out of the main fleet."

"That's why our mother ship is giving permission to fight, so we're just leaving it up to the people on the scene, telling them to decide for themselves what to do."

"What are you going to do?"

Chiaki looked around at the two crew members. Marika shrugged.

"If we leave all the decisions to the field and can't rely on predicting the future, that means we have to decide everything by ourselves. Let's discuss it and make a decision. Whatever we take, the sooner we do it, the better."

"Okay, a suggestion."

Kiara raised her hand. Seeing that no one stopped speaking, she continued.

"If our ultimate goal is to achieve good results, rather than contributing to the overall trend of the battle or surviving, does that change the way we think or what we have to prioritize?"

Marika and Chiaki exchanged glances. Chiaki nodded with interest.

"Good results, huh? I'd never thought of that before, but yeah, that's what we should prioritize the most."

"So the tactical goal is not the outcome of the battle, but to achieve good results as an officer cadet, huh?"

Marika pondered.

"Well, it's selfish, but it's about fighting bravely and self-sacrificingly, and contributing to the overall battle situation rather than worrying about whether you live or die?"

"Isn't it difficult to affect the overall battle situation with a patrol network far from the front line?"

Chiaki calmly stated her opinion.

"Also, I heard that the Imperial Fleet places importance on survival rates, so if you blindly demonstrate a spirit of self-sacrifice in an exercise where there is no risk of death, you will end up with negative points."

"So for now, you have no choice but to do the job in front of you."

Kiara looked around at the 3D display showing the battle situation.

"What if we retreat to avoid the attacking forces?"

Kiara quickly got to the point.

"If that happens, there will be a temporary hole in the training fleet's patrol network, but if they return with the interceptor force, they can fill the hole. Am I wrong in that understanding?"

"Correct."

Marika nodded.

"If we stay in our current position and maintain the patrol network, we can maintain it until we are caught by the attacking force and shot down. However, once we are judged to have been shot down, it will cease to function, so at that point a hole will appear in the patrol network."

"If we are judged to have been shot down, we cannot return to the battle, but if we retreat and return, we can restore the patrol network. The attacking force will probably knock down the probes as they pass by, so we probably won't be able to reconstruct the patrol network as it was, but retreating and returning would result in less damage overall."

"It's a reluctant move, but retreating and returning with the interceptor force is probably the safest and most reliable tactic."

Marika moves the three-dimensional display of the battle situation in various ways according to her predictions. "But this is just a training exercise, and we won't be killed if we fail, so why not try to stay and wait it out?"

"Wait it out?"

Kiara asked.

"How?"

"Pretend to retreat and stay here."

Marika tapped on the console.

"It will create a temporary hole in the patrol network, but we can minimize malfunctions by reviving it once the attacking forces have left it far enough. It would be easy to create an electronically generated ghost and retreat while we go into stealth, but look, we have a dummy decoy ready, so shouldn't we use it?"

Marika transferred the necessary data to the two of them.

The decoy was installed in the Silent Hammer's external weapons bay as standard equipment.

"Wow, I thought it was just a decoy to confuse the attacking side, but it even has the ability to relay data via a FTL line. Why don't we just leave it here and retreat, and come back when this is over?"

"I see."

Marika thought deeply about it.

"That's an option. But it won't work, if we just leave the decoy and let it relay data, a hole will appear between the time the decoy is attacked and loses function, and the time we get back."

"So there are four decoys."

Kiara checked the equipment in the weapons bay. There was also a spare unmanned probe, but it wasn't equipped with any missiles that could be used in combat.

"In that case, why don't we send two out, leave one here, and withdraw the other?"

"First, use the one that's withdrawn to relay data, and if that's not done, use the one that's left behind to relay data, then?"

Marika checked the performance of the decoy installed on the Silent Hammer once again. Its observation function is far inferior to that of the patrol boat itself, but it responds to radar and optical observations just like the real thing, and it also has built-in explosives that will cause an explosion just like the main body if it is destroyed.

"We'll use that."

Marika looked around at the two of them.

"So, are you sure?"

"I agree."

Chiaki raised one hand.

"In that case, we need to set up and launch the two decoys as quickly as possible, but will we be able to make it in time?"

"It'll be fine."

Kiara started to move her hands quickly.

"We can just copy the settings of this boat for the data relay, and we only need to program the retreat course on one side, and if we leave the evasive maneuvers to the computer, it will create a much better trajectory than if we set it up ourselves."

"Are you sure you want to leave it to us?"

Marika called out.

"Do you need your hands?"

"It's fine for now."

"Then we need to prepare to withdraw this boat, fold up the antennas, and get ready to hide."

The various antennas that the Silent Hammer has spread out to a scale of more than ten times its main body take a fair amount of work to deploy and stow. In an emergency, the deployed antennas can be detached and abandoned in their entirety.

It takes longer than detaching them, but there is still plenty of time before the time limit, so Marika began to stow all of the Silent Hammer's antennas.

"Hurry and set up the first decoy."

Chiaki checked the communication status of the combat information network that Silent Hammer is in charge of.

"If we're going to let the decoy take over the relay without creating a hole in the patrol network, we need to do it quickly, or the attacking side will find out."

"Roger."

Kiara copies the same network settings as Silent Hammer to the decoy.

"Okay, start preparing the first decoy for launch. If it's close, you can aim at the antenna and continue the settings over the radio, and it takes time to deploy the decoy's antenna."

"Okay."

Chiaki checks the latest status of the four decoys prepared in the weapon bay. Unit 1, which is on the release launcher, and Unit 2, which is waiting to be loaded onto the launcher, have started up, and the latest settings have started to be copied to both.

"Kiara will copy the network settings, but can I set the schedule after launch?"

"Please."

Kiara responded while working.

"It's impossible to set up the network and the flight plan at the same time."

"Understood. I'll set up the network for Unit 1, and set a trajectory to retreat to the rear after deploying the antenna."

Chiaki began her work, telling her fellow passengers what she was doing so they could understand.

"What's the estimated time of departure?"

"In twelve minutes."

Marika checked the latest status of Silent Hammer 680.

"In twelve minutes, the deployed antenna will be retracted and the patrol boat will be able to perform combat maneuvers. Will the decoy antenna deployment and preparation for departure be completed by then?"

"There's no problem with the network settings."

Kiara answered.

"There's no problem with the flight schedule."

Chiaki also answered.

"Decoy Unit 1 is ready to be released. Open the weapon bay door, unlock the launcher, and follow the procedure to move away from here?"

"We can."

Kiara said. "Wait a moment, the network copy will finish soon, and then we'll switch the connection with the decoy from wired to wireless."

"We're still creating a flight plan for the retreat."

Chiaki was putting together a map of the future trajectory of the decoy 1 on the display.

"We'll retreat while keeping the network, and if we get caught by the 'Red' attack radar, we'll purge the antenna and perform an evasive maneuver. When should we switch the network relay between decoy 1 and 2? Can we do it after 1 is attacked and we detach the antenna?"

"If possible, I'd like to hold out until 1 is destroyed by the attacking forces."

Marika tried to imagine how the battle would play out in her head.

"Yeah, we'll wait until Unit 1 is shot down before switching the network. We'll wait until Unit 2's antenna is detached before deploying it. I know it's a shame to do it while we're running away, but I'll make a hole in the patrol network. If we deploy the antenna, the attacking forces will realize that they need a backup and come back."

"Should we put a timer on it? Or should we manually repel it from here?"

Marika thought for a moment when Chiaki, who was filling in the settings, asked.

"We'll do it manually from here. OK? Unit 1 will drop its antenna and automatically perform evasive maneuvers when it is detected by the attacking forces' radar, Unit 2 will stay silent and hide until then, and begin deploying its antenna when Unit 1 runs away. Unit 1 will fly autonomously, and Unit 2 will be controlled by us as we monitor the battle situation. Um, does that make sense?"

"Maybe it does?"

Chiaki said while working.

"Once Unit 2's antenna spreads out to a certain extent, the Red attack force will realize they need a backup and return. But if Unit 1 has escaped by then, our intercept force will arrive in time, and Unit 2 will be able to restore the patrol network."

"Network settings copied, switching the connection with Decoy Unit 1 from wired to wireless."

Kiara continues to operate quickly.

"Unit 1 is ready to be released. I think that's the way to switch between Unit 1 and Unit 2."

"Decoy Unit 1 will be released. Unlock, I'll control the relative speed here, so move away from here."

Marika used the controls that came around to her seat to release Decoy Unit 1 from the launcher in the weapon bay. She slowly moved the Silent Hammer so that the decoy, now floating freely in the weapon bay, would leave through the open door.

"Safe distance secured, within relative speed standard. Unit 1, begin releasing antenna. Silent Hammer's antenna storage rate is still at 12 percent."

The decoy, which had been in a blunt storage form away from Silent Hammer, deployed its panels to make its radar response resemble that of the model, and at the same time began to deploy its delicate antenna.

"Well, if the storage rate of this antenna and the deployment rate of the decoy's antenna balance each other out, we should be able to fool the observations of the attacking forces at this distance."

Marika confirmed that the battle situation, including the enemy encounter prediction, had not changed.

"So, why do you think such a careless operation will be okay?"

"I told you at the beginning, the situation in this exercise is designed to roll in a bad direction."

Kiara said as she continued to set up the detailed settings of the decoy Unit 1, which was connected by radio.

"Red has an overwhelming advantage in terms of the number of capital ships, but even now after the battle has begun, the melee is still roughly evenly matched overall. Blue is outnumbered but is managing to get by because they have a more detailed patrol network than Red, so if even a small hole opens up there, Blue will be at a disadvantage all at once. So, if someone up in the clouds is watching this, I think we'll continue to have the advantage for a while longer."

"Isn't someone up in the clouds just happy to make things difficult for the people on the front lines?"

Marika said.

"Otherwise, I don't think this would be the first graduation exercise for new recruits to engage in hand-to-hand combat in powered suits."

The situation had turned out to be more severe than the initial optimistic outlook.

The deployment of the antennas of the released Decoy 1 and the retraction of the antennas and network handover of the patrol boat Silent Hammer 680 proceeded as scheduled. Decoy 1 took over the surrounding probe network from Silent Hammer and, once it was confirmed that it had begun to transmit combat information, was launched into a retreat trajectory.

The "Red" attack force against the patrol network approached Silent Hammer earlier than expected.

If it had gone according to the original plan, Decoy 1 would have been left there as a backup after its launch, and Silent Hammer 680 would have safely left the coordinates in stealth mode. The attack force is far enough away that there is no need to worry about the stealthy decoys or patrol boats being discovered.

However, some of the attack force have increased their approach speed, knowing that this will reduce the accuracy of their exploration and observation.

The ``Red'' attack force, which has been launched to attack the ``Blue'' patrol network surrounding the battle airspace, has been confirmed to consist of several hundred aircraft, mainly heavy fighters. The attack force, which disperses from the battle airspace where battleships and cruisers are engaged in mobile combat, approaches with the observation ships and patrol boats stationed at key points in the patrol network as its main targets.

``Red'' attack targets are not limited to observation ships and patrol boats. If it is not too far away, they will approach and attack unmanned observation probes that are stationed at low density over a wide area, disabling them and reducing the accuracy of the patrol network.

Six heavy fighters are approaching the airspace overseen by Silent Hammer 680. Four of the planes continued to accelerate longer than initially expected, significantly speeding up the predicted contact time.

"Wow, that's impressive, what can I say."

Chiaki drew out a precise predicted trajectory for the four heavy fighters ahead of them.

"They give us time to react, and then approach at a time when any countermeasures we start to take could be undone. As their speed increases, their attack accuracy decreases, and any that are missed are taken on by the slower approaching planes. As expected of a major force with military power, they're used to doing things and using them."

"They're probably just sticking to the basics though."

Marika confirmed the predicted trajectories of the four planes ahead of them and the attack targets derived from them.

"That's why they're such a troublesome opponent. The four planes ahead will probably find Decoy No. 1 as it starts to retreat and give chase, but the problem is the two planes coming later."

"Even when the two planes are closest to each other, they'll be pretty far away, right?"

Kiara also shifts the timeline of her future predictions to check the progress of the battle.

"If we keep on staying stealthy, we can get by, right?"

"If we're this far away, even if the enemy is using normal speed and has better observation accuracy than the four planes ahead, they might be able to overlook it."

Marika said calmly.

"Well, we'll think about what to do when we find them, but what we need to think about now is the timing of activating the backup Unit 2. We were planning to open up Unit 2's antenna once Decoy Unit 1 was picked up by enemy radar, but with two units still behind us, we'll be found no matter what if we open up our antenna."

"If they find us, they'll come and attack us, right?"

Kiara spoke up, explaining the obvious development. Marika nodded.

"Then, just as the decoy No. 1 is shot down and No. 2 is about to take over, it will also be shot down. No matter what we do, the time it takes for a hole to appear in the patrol network to increase."

"If No. 2 is taken down after No. 1 is taken down, what is the expected outcome after that?"

"If the heavy fighter doesn't notice us in stealth after No. 2 is taken down, we'll wait until the attacking force notices us and returns so that we can intercept them in time, and then we'll take over the network."

Marika made a big move into the future in her prediction of the battle situation.

"However, in that case, the time it takes for a hole to appear in the patrol network to increase. The time it will be okay for the follow-up that has passed by to notice and return is when the main force or the guerrilla force arrives for a pursuit. If we don't wait for that, we'll be chased by the heavy fighter and have to run away."

"If we stay, it'll probably just save us the trouble of having to return."

Chiaki explained the pros and cons.

"The time it takes for a hole to appear in the patrol net is better than if they ran away and returned without placing a decoy. What are you going to do?"

"If the four planes ahead of us continue chasing the decoy No. 1, then we'll only have to deal with the two that come slowly after."

Chiaki looked at Marika's face as she spoke. Kiara spoke up.

"Did you just say you were going to deal with two planes?"

"Yes."

Marika replied in a low voice. Kiara asked again.

"Are you going to deal with two heavy fighters equipped with anti-ship armaments with just this one patrol boat that doesn't even have any weapons?"

"I don't think it's going to be a big problem if they're not armed."

Marika tried to speak in a cheerful tone. "Even if the heavy fighters belonging to the Third Fleet are fully equipped with options in our weapons bay, it would be a waste to use them. So, if there is anything this patrol boat can do now, it is to drag the enemy around as much as possible before they make contact, and to make them spend as much time as possible."

"You know you will lose the actual battle, so you want to make the enemy change course before that happens and buy time, right?"

Chiaki interpreted Marika's plan in her own way.

"Specifically?"

"We'll move forward first."

Marika unsurely moved her boat towards the battle airspace.

"Since the objective of the attack force is to attack our patrol network, I think they will chase after the patrol boats when they come out. After all, they are the main target of attack."

"If we go forward, what happens next?"

"We'll run away, keeping as much distance as possible from the two following. If we can get them to move away from the decoy No. 2, we can expand our antennas and reconnect to the network, minimizing the holes in the patrol network."

"If we go forward,"

Kiara said.

"What's the guarantee that both of them will chase us?"

"We can just skillfully set up an orbit that keeps them at an equal distance so that both of them will chase us."

"The enemy is a heavy fighter that's much stronger than us. They'll probably think that if either one of them chases them, they'll definitely shoot them down, so they probably won't bother chasing them with two planes. What if the remaining plane flies in on the planned orbit and notices No. 2 starting to open its antenna after Decoy No. 1 is shot down?"

"No. 2 will be shot down as well."

Marika spoke the predicted outcome. Kiara nodded.

"So, there are two more decoys left in our weapon bay. We'll have Unit 2 take over the patrol network in its planned position, and if we move forward, we can have the other unit send out a new decoy and chase it."

"Do you have time to set up another decoy?"

Marika asked. Kiara began typing quickly on the console.

"The network settings will be the same as the first two, and they will fly in the opposite direction to Unit 1. We need to accurately read the trajectory of the two heavy fighters coming after us and take a trajectory that makes them think they're fleeing and not decoys, but if they can give us instructions on that trajectory, then yes, we should probably make it in time."

"Even if we don't make it in time, if we have more targets to track, the trustworthy "Red" attack force should be able to give chase."

Marika wrote down a few important targets on her keyboard.

"We'll leave the specific trajectory to the computer, which will choose the optimal trajectory. What the decoy and I should aim for is to delay the encounter with the Red heavy fighter as long as possible, and survive as long as possible after the encounter."

If you input the necessary conditions into the computer, it will calculate and draw the optimal trajectory for that purpose. The trajectory that Decoy No. 3 should take was drawn on the 3D display. After adding some conditions and checking that there would be no major problems with the battle results, Marika manipulated the trajectory data on the console and sent it to Kiara.

"The trajectory of Unit 3 is like this, and it will approach the battle airspace from its current position."

"Okay, I got it."

Kiara confirmed that the lines drawn on the 3D display were quantified with vectors.

"What other conditions did you enter for the battle objective?"

"A trajectory that would interest the two units coming later."

Marika drew the next trajectory in the 3D display.

"Also, we want to fly through a space with as few undamaged unmanned probes as possible. Since the purpose of the Red's attacks is to disable the patrol network, unmanned probes will be targeted and disabled one by one even if they pass by, so it's better to minimize damage as much as possible."

"Are you planning on stealth?"

"Anyway, if we start moving, a lot of things will come out, so stealth is useless."

Marika looked at the current position of the four heavy fighters that should have reached the closest point.

"The heavy fighters that work against big targets are flying faster than originally planned, so we could hide if we were stealthy, but the two following planes haven't increased their speed so much that the resolution of their radar and sensors drops, so we might be found."

"Of course we're sharing data from the four preceding planes."

It is common sense to share radar and sensor observation information with friendly planes flying in the surrounding airspace. Even if the data from each plane is rough, the accuracy can be improved by overlapping them.

"Let's stay in stealth mode until they start moving. Maybe we can stay hidden without being detected not only by the four planes ahead of us, but also the two planes behind us."

Marika's optimistic prediction that the Red attack force passing through Silent Hammer No. 680's airspace might not notice the stealth patrol boat, was dashed after the four ahead of us passed.

"The predicted trajectory of the two behind us is heading straight this way."

The Red attack force not only attacked the patrol boats that were the relay points of the network, but also attacked the unmanned probes that were the observation points, one by one, that came within range.

Long-range precision shooting is not a heavy fighter's forte. However, perhaps because they have the time to take their time with both observation and shooting, the heavy fighter fired its attack beam without narrowing it much, disabling the unmanned probes that came within range one after another.

The four ahead of us passed through the space away from No. 680 without even slowing down. One of them spread its antenna and responded in the same way as Silent Hammer, taking a trajectory to pursue Decoy No. 1, which had also taken over the relay function of the patrol network.

After the four leading decoys had passed, Silent Hammer No. 680 released a third decoy with a set trajectory.

Then, while some of the unmanned probes were disabled by the Red attack force, the patrol network notified Silent Hammer of the change in course of the two following aircraft.

"They couldn't hide well," Marika clicked her tongue as she saw the predicted trajectory of the new two following aircraft.

"Maybe they were fooled by the observations of the four leading aircraft," Chiaki said.

"So, I think they told the following planes that they were a target to watch out for."

"Well, that's a better job than some guy who just got on a patrol boat yesterday or today."

"What are you going to do?"

Chiaki asks.

"One of the two planes following us is definitely heading our way. Even if it's a heavy fighter, if it gets this close, it'll definitely find us."

"It'd be troublesome if a heavy fighter approached and pinpointed our location."

Marika tried to imagine what would happen next.

"I guess it'll be hit by a single large-caliber beam, be shot down, and put out of action. There are special rules for the exercise, so it won't be an easy situation for us to play the role of a corpse until the end of the exercise."

"Are we sent back to the relay role in the patrol network, or will the mother ship be ordered to return?"

Kiara didn't take her eyes off the predicted trajectory of the two planes behind her.

"Either way, we're in the middle of our graduation exercise, so we're not going to have an easy time."

"That's true. Well, it'll just buy us some time, but let's make a last-ditch effort."

Marika sent a new flight plan to Chiaki and Kiara's seats.

"If we're going to move anyway, the sooner we do it, the more options we have. Let's get going."

"No change to the direction of escape?"

Chiaki tried to overlay the future trajectory of the Silent Hammer that was sent onto the 3D display. Marika answered.

"No change. It's still in the direction where the unmanned probes are thinnest in the patrol network we're in charge of."

"Wouldn't that be disadvantageous for confirming the enemy's current location?"

"We're not going to be able to fire long-range precision shots from here anyway, so we don't need accurate position data on enemy fighters. Besides, if the following forces start chasing us, they'll probably attack every unmanned probe they can reach, so it's better to avoid as many casualties as possible."

"Going towards the battle airspace is fine, but wouldn't it be better to have an trajectory that makes it easier to come into contact with the pursuit force?"

Kiara overlaid the future predicted trajectory of the Silent Hammer and the pursuit force.

"If we can escape, we can leave the attacking force to the pursuing force."

"That's fine, but if we do that, if the two planes behind notice the pursuing force and give up quickly, there's a chance they'll head in a direction that will find the decoy No. 2 we left behind."

Marika has a difficult look on her face.

"If we want to minimize the time it takes for a hole to appear in the patrol network and also take care of our own survival rate, I think this is the best option, since it will drag the fighter planes around for as long as possible."

"Got in."

Kiara erased the future trajectory that Marika had sent from the 3D display.

"If we start moving even a second earlier, we'll have more options. If we're successful, we might get some good points, so let's go."

Marika looked at Chiaki. Chiaki nodded.

"That's fine. If it keeps rolling in troublesome directions, we can't expect it to be shot down right away."

"Then, Kiara will control Decoy No. 3, Chiaki will control No. 1, and Cadet Kato Marika will pilot the patrol boat."

After declaring this, Marika sat back in the cockpit.

"Silent Hammer No. 680, let's go."

"Understood."

Chiaki brought the latest status of Unit No. 1 in front of her. Kiara switched the control panel.

"Understood. The destination is as the computer says, but if there are any changes to the plan, let us know as soon as possible. We might be able to tell which one is the decoy by which of the two targets that return the same response and which one moves first."

"The computer will probably predict it too, so I don't think it'll be readable."

Marika confirmed the planned trajectory of No. 680.

"Got it. The computer has finished calculating the trajectory. Unit 03 and we can both move at any time."

"Well, launch then."

Marika said. Silent Hammer had already retracted its antenna and was in stealth mode.

"Got it. Decoy Unit 03 is launching, accelerating."

"Silent Hammer No. 680, launch."

The two flying bodies, which had been in stealth mode and inertial navigation, began to move, with Kiara's kick for the decoy and Marika's command for the Silent Hammer.

Even if the aircraft is hidden by both passive and active stealth, if it accelerates or decelerates, a trajectory of its movement will be left in space. The ultra-high-speed jet of the reaction thruster emits an infrared response that cannot be completely eliminated even by the diffusion and heat dissipation system of the jet nozzle, and if inertial control is used, it will be picked up by gravitational wave observation.

By combining infrared observations that capture the thrust of the reaction thrust and gravitational wave reactions that observe the operation of inertial control, it is possible to obtain the target's vector and mass without directly observing the main body.

The actual mass of the decoy installed on the Silent Hammer is far less than that of the mother ship. The decoy has low mass and low power and is adjusted to return the same infrared/gravity reaction as the Silent Hammer, so it should be indistinguishable from the Silent Hammer unless the stealth is turned off or stopped to confirm the actual thing.

"The four leading units are not moving at the moment."

Chiaki, who was monitoring Unit 1, which was flying away from the battle airspace, announced.

"If two new reactions start moving behind us, we'll realize that the one in front of us is a decoy, but we won't be able to open a big hole in the patrol network unless we destroy the decoy first."

"For now, there are no signs of other attack forces attacking from other airspaces."

As they accelerated away from Decoy No. 3, which had taken off almost at the same time, Marika checked the situation in the surrounding space and the space they were planning to enter.

"In return, there were no reinforcements from our pursuit forces. At the moment, our plan remains unchanged: to escape as much as we can from the heavy fighters and hold out until the pursuit forces arrive."

"Two following units, change trajectory."

Chiaki told them while controlling Decoy No. 1, which was ahead of them.

"It looks like they've clearly changed their target. One changed its orbit to Decoy No. 3, and the other turned towards us. From now on, we'll call the one facing us Alpha, and the one facing No. 3 Bravo."

"Roger."

Kiara said.

"You're used to it."

"They even give monsters names."

"So, if we've succeeded in reeling in the two following craft, I think we should start to make a full escape, what do you think, Captain?"

"Who's the captain?"

Marika, who was in the captain's seat, responded.

"But I agree with that policy. Let's calculate a trajectory for both Decoy No. 3 and our boat, with a high safety margin, but without getting too far, so we can make a dramatic escape."

Marika sent a trajectory prediction made under the new battle conditions to Kiara.

"Accelerate at the same time."

"Received."

Kiara slid her finger over the control panel of Decoy No. 3.

"Transmission to No. 3 completed. We're ready to go."

"Okay, No. 680, start accelerating."

Marika put the patrol boat into high acceleration. The infrared response from the jet, which was much larger than before, should have been picked up by the heavy fighter.

At the same time, Kiara also applied a similar large acceleration to Decoy No. 3. The sensors should have left the same response for both the decoy and the patrol boat. The pursuing heavy fighter had no way of telling the difference.

The heavy fighter began accelerating in order to bring the two fleeing patrol boats within range. It closed the distance to the two captured patrol boats on the most efficient approach trajectory.

If the control is left to the computer, which analyzes all battle situations and selects the trajectory most suitable for the specified purpose, the role of the crew becomes that of monitoring the situation. Otherwise, a rookie cadet would not be able to perfectly control the patrol boat and three decoys at the same time, even though one of them was standing by and not moving.

Accurately watch the progression of the battle situation and instruct the computer on tactical objectives to predict in order to respond to changes in the situation. This is the biggest task for flesh-and-blood humans, whose reflexes and observation skills are far inferior to machines, to control the battle. The cadets, who have been taught this, must observe the battle situation displayed around them one by one, carefully watching the changes in the situation.

However, the battle situation does not change so easily. In the battle situation updated in real time, enemy aircraft that may attack the ship change their current position every moment, extend their trajectory, change the vector display, and keep an eye on the numbers of the probability of future predictions that change accordingly.

The instructor told them that it is not just the probability of future predictions that is important, but the range of change, and that they should always think about how to change tactics based on it. They have experienced similar situations in simulations, but even though it is an exercise, this is almost the first time that new cadets will experience it in a situation close to actual combat.

"No good."

The first to break the tense silence was Chiaki, who was in charge of the decoy No. 1.

"If I was piloting the decoy myself, it would be one thing, but if I leave it to a computer that thinks much better and pilots better than me, the battle that should be happening right in front of me starts to seem like someone else's business."

"Don't say that."

Marika said, trying to see not only the situation around Silent Hammer 680, which she was in charge of, but the situation of the entire patrol network.

"It responds automatically to most situations, and the battle probability isn't really changing at the moment, so there's nothing to do, but even if you think that, don't say it."

"Well, with all this automation, there really isn't anything to do."

Chiaki showed a fleet battle between capital ships on part of the 3D display that filled the cockpit. The melee continued, and there was no change in the situation.

"It looked hard when I was watching, but if you leave this whole melee to the computer, maybe the people on the ground have nothing to do and are bored?"

"That would be the case if it had just started."

Marika shook her head.

"If it's close combat, the situation will change minutely, so even if it's automated, they'll still have to give instructions, and since it's close combat, there will be a lot of damage judgments, and they'll have to control the damage every time they take damage, and various parameters change depending on the judgment, so the things they have to do will change, and in general, the frequency of combat is high, so I think they're much busier than us."

"Well, it looks flashy, so it looks like they're having a hard time, but..."

Marika ran her regular rough search, thinking that there might be some change in the overall battle situation.

"Huh?"

Marika spoke in a silly voice that didn't match the progression of the situation.

"Did it stop?"

"What?"

"Command network."

"You're kidding me?"

Kiara spoke up, not Chiaki.

"How could the command network stop? Especially in the middle of a graduation exercise?"

"Isn't the communication system jammed?"

Chiaki calmly pointed out. Marika switched between systems to check the latest situation.

"There's nothing wrong with the battle information network, but it looked like our command network stopped for a moment just now."

"Did 'Red' succeed in taking over our command network?!"

Kiara began to check the network.

"Oh, it doesn't seem that way."

Marika extracted the information she needed from the information flowing through the battle information network.

"We received a notification from our electronic battleship that 'Red' had launched a powerful crack on 'Blue's' command network, and we're currently dealing with it."

"A direct attack on the command and communication network?"

Chiaki muttered.

"Since both the enemy and the ally are the same Imperial fleet, the command and communication network are basically the same. I thought that the prohibitions on attacking the command and communication network were included in the prohibitions on the exercise settings."

In order to realize limited situation battles in exercises, various rules are necessary. When this type of exercise started, it was expected that the exercises would be as close to actual warfare as possible with as much freedom as possible, but since the exercise fleet disappeared en masse from the exercise airspace quite early on and attempted a direct attack on the enemy fleet headquarters, various restrictions were added, such as limiting the battle airspace and the targets.

In this graduation exercise, direct attacks on either fleet's headquarters are prohibited. Since the number of prohibited items in the exercise is enormous, it is said that if a novel attack target is thought up, it is necessary to first check whether it violates any of the prohibited items.

"The command and communication network is like the central nervous system of the Imperial fleet. If it can be shaken by an attack in a training exercise, it's easier to deal with than if it were to be destroyed in a real war, and it doesn't seem to be on the list of prohibited targets."

"The selling point of the command network is that it's sturdy and safe."

Kiara continues to check the command network. Direct orders don't come to her on the front lines, especially since she's a low-ranking member, but she can check the orders that are being given at any time.

"If it's a training exercise, the attackers are allies, so even if they do succeed, it's easy to deal with, and it seems like the policy is that if they can destroy it, it's better to have them destroy it as soon as possible."

"Did you find anything?"

"Nothing from the command network itself."

Kiara answered Chiaki's question.

"The battle information network has confirmed a powerful attack on the command communication network. All that's left now is to estimate the method of attack and explain how to deal with it."

"Is our command communication network operating normally right now?"

"It is, but..."

Kiara stopped tapping on the control panel.

"Command is considering shutting down the command communication network."

"What!?"

This time, Marika and Chiaki spoke up together. Chiaki continued.

"Is it okay to do something like that? Can we really wage a proper war if the command communication network is shut down in the middle of such a large fleet battle, and especially in the middle of a melee?"

"Hmm."

Kiara picked up the necessary information from the battle information network.

"If the command and communication network falls under the influence of 'Red', there is a possibility that the best tactic will become the worst tactic. If that's the case, it might be better to let the front line act independently based on the information from the combat information network, but they're still considering it."

"That's amazing."

Marika muttered.

"They're trying to shut down the command and communication network in the middle of such a melee."

"Ah, shutting down isn't even accurate."

Kiara added more information.

"If 'Red' finds out that 'Blue's' forces have been removed from the command and communication network, they'll probably use a different tactic, so they're thinking of keeping the command and communication network alive for the time being, but ignoring it."

"What's that?"

"You mean we should fight a war without the command and communication network?"

Kiara nodded at Marika's interpretation.

"It would be better to think for yourself and act on your own, rather than following orders from a command and communication network that may have fallen into the enemy's hands."

"But how do you predict the future?"

Chiaki asks.

"Even if the onboard computers can predict the future of each individual aircraft and ship, can you fight without the entire fleet and move it without the command and communication network?"

"For now, only the command and communication network is dangerous, and no abnormalities have been detected in the battle information network. Of course, it's a light battle information network, so attacks and interference are constant, but you can trust the information flowing in front of you at the scene. If the information in front of you is different from reality, you can immediately tell it's fake. So, if you act according to the predictions made based on the reliable information in front of you, you won't suffer a major defeat."

"It's the same with the command and communication network, which is fighting a war with information from the network. Sure, the headquarters computer is bigger and faster, but the information flowing is the same, and as long as the software version doesn't change, the results of battle predictions won't be that different between the headquarters computer and the powered suit computer."

"So, you're saying it's okay if we don't use the command and communication network?"

Chiaki tilted her head with a difficult look on her face.

"In that case, you can get there without using a command and communication network on a regular basis, right?"

"You can probably get there if it's just combat."

Marika glances out of the corner of her eye, watching the movements of the heavy fighter planes.

"This is an exercise, so the schedule is mostly set, but in a real war, there are political decisions that can't be made on the battlefield, like suddenly cancelling, surrendering, or retreating, so you know."

"Oh, I see. If factors other than combat are involved, it'll be bad if we don't have a command and communication network."

"Also, the battle situation is set in stone as it is now."

Marika enlarges the 3D display.

"If the battle situation were to change drastically, we would use the command and communication network, but with the situation now so deadlocked that it seems like it was planned, there would be no urgent instructions from above unless there was a major change in tactics."

"So that means our headquarters has decided to fight against the command and communication network as well."

Kiara looked around at the 3D display that filled the entire cockpit.

"The fleet battle in front of us is already tough, but this is a terrible development."

"It matches my prediction that the burden on the entire army will increase."

Marika stares intently at the battle situation centered on her own boat.

"...Hey, can I do something a little dangerous?"

"What?"

"That's rare."

"Well, if the battle situation is going to cause trouble for the field no matter what, then even if we do something a little reckless, we won't be easily taken down, right?"

"Optimism is dangerous on the battlefield."

Kiara looks at Marika's face.

"Okay, continue."

"If a hole appears in the patrol network around here, the battle will be unfavorable to us. In other words, the situation that has been so complicated will become too easy to handle. So I think that if we are a little more likely to lose, we have a higher chance of succeeding even if we do something dangerous."

"Is that optimism, or will it mean taking advantage of the situation? Anyway, what are we going to do?"

"We will spread out our antennas and observe the exact position of the pursuing heavy fighter."

Marika typed in an additional command to predict the future.

"Before the enemy can capture us within range, we will use our equipment, which is much more complete than that of heavy fighters, to determine the enemy's position and have our pursuer aircraft snipe them. We will need to use various tricks to make precise observations, but spreading our antennas out of range will not increase the risk that much."

"Long-range precision sniping on our pursuer?"

Chiaki confirmed the current position of the friendly pursuer, which was still far away.

"Can you rely on it?"

"The large-caliber beams on the pursuers are much more reliable than our self-defense weapons. If they open up their antennas while escaping, they'll know we're the real deal, but if they give up on pursuing the decoy, we can return it to its regular position and use it as a relay."

"What's the success rate of long-range sniping?"

"I calculated it all, including the expected value, and I'd say it's about five percent."

As Marika tapped the control panel, she spoke a number that was too low for an expected value.

"However, you can request long-range sniping from the pursuers as many times as you want before they get caught in the range of the heavy fighter."

"So you can try long-range shooting as many times as you want until you hit your target. What's the downside?"

Marika answered Kiara.

"If a heavy fighter comes within range, we won't be able to make agile evasive maneuvers like we are now if we keep our antennas open."

"Even if the patrol boat makes evasive maneuvers against a heavy fighter, it's only a matter of time before we'll be cornered. How much time will we lose?"

"Even if we let the computer predict it under rough conditions, it only differs by about two or three minutes."

"Considering the value of one second that can be gained on the battlefield, it's a time that can't be ignored, but, well, I guess it's worth taking a ride if it's a heavy fighter and there's a chance that they might give up on the pursuit because of friendly fire."

Kiara asked while tapping on the control panel.

"But what do you want to do by spreading out your antennas and making yourself look bigger to the enemy? Observing the exact location of enemy fighters and requesting precision fire is just a way to prolong your life."

"Well, I want to see the exact communication situation on the entire battlefield."

Marika said with a careful look on her face.

"This spaceship is a patrol boat, and it has its own observation equipment and has a strong communication system because it has to relay data from unmanned probes. So I thought that if we could see the exact amount of information from the enemy and friendly command and communication networks and the battle information network, we might be able to understand a little better what's going on."

"The battle information network and the command and communication network are commanding what is happening, and what is happening is displayed in 3D here."

Kiara turned her head to the cockpit.

"Is that not enough?"

"Right now, I understand that even if you show me everything about how the battlefield is laid out and how it's moving, it's still hard to understand."

Marika smiled apologetically.

"So I thought maybe we could see something if we looked at the root of what was creating the current situation."

"Allied information aside, all we can see from an enemy network is the traffic volume. It's encrypted, so even if we try to decrypt it, it's a lot of work."

"Oh, that's fine."

Marika waved her hand.

"Even if combat information is put in front of you in a readable format, you can't read it all anyway. If we could see the amount and direction of the information flowing overall, I think we might see something different."

"Decoy Unit 1 has been caught in the enemy's range."

Chiaki reported matter-of-factly.

"Evasion maneuvers underway. It will probably survive longer if it maneuvers autonomously rather than controlling it from our side, but if it's under so much direct fire from the fire control radar, it'll only be a matter of time before it's hit."

"There's no need to worry about the four planes coming this way."

Kiara checked the current position of the "Red" heavy fighter.

"If it turns around and comes back now, it'll collide with the interceptor that passed us. It would be different if there was an order to change tactics, but it looks like it's heading straight out and engaging in a dogfight with our interceptor force."

"So..."

Marika checked the current position of the two pursuing fighter planes. Bravo was chasing Decoy No. 3, so only one heavy fighter, Alpha, was chasing Silent Hammer No. 680.

"At the moment, the only enemy is Alpha, so we don't need to shoot it down. We can just survive and ask them to withdraw. If we can accurately observe the vectors of Alpha and, if possible, Bravo, and ask the pursuit team to fire long-range, that will provide us with covering fire and hopefully make the heavy fighters give up the pursuit. What do you think?"

"I think it's better than running away."

Chiaki is watching the movements of the decoy unit she is in charge of. Marika nods to Chiaki and looks at Kiara.

"How do you like it?"

"I'm on board."

Kiara typed a new command into the control panel.

"I've also commanded decoy unit three to deploy a dummy antenna. If we extend the antennas on both at the same time, it will be useful enough to prevent Red from deciding which one is the real target."

The decoy is equipped with a relay function, but it is not equipped with observation equipment like the patrol boat. However, it is possible to expand the antenna.

"Well, that's the plan."

Marika gave the command to deploy the Silent Hammer's antenna while on an accelerated trajectory that would delay contact with the pursuing heavy fighter as much as possible.

The inertial control system was set at an acute angle so that it would be effective all the way to the tip of the extended antenna, and the Silent Hammer began to deploy the observation antenna that it had once retracted.

"Damn it."

Marika muttered as she used inertial control.

"If I had known it would turn out like this, I might have been able to improve the overall observation accuracy by running to the side where there were more probes."

"Yeah, if we had run to the side where there were more probes, we might have been able to improve the observation accuracy by about two-tenths of a percent."

Chiaki responded.

"Why don't we just request more covering fire to make up for it?"

With its antennas and sensors fully deployed, the Silent Hammer 680 entered unpowered inertial navigation to maximize its observation capabilities. A high-frequency radar with the same resolution as that used for fire control is fired at the pursuing heavy fighter to collect accurate vector data.

The moment the radar is activated, it is possible to determine whether it is a decoy or the real target. However, the heavy fighter Bravo, which had been chasing Decoy No. 3 and was far enough away, decided that changing course at this point would be ineffective and continued its pursuit of No. 3.

The heavy fighter Alpha, which was chasing the patrol boat, responded to the patrol boat's observations by deploying electronic jamming and disruption curtains.

Silent Hammer transmitted as accurate data and predicted trajectories as possible to the Blue pursuit force, which had been dispatched to pursue the Red heavy fighters, via the combat information network.

The Blue pursuit force was approaching, but was still far away. And the range was determined by the range at which the target could be observed more accurately than the distance that a missile or beam could reach.

At the request of the patrol boat, the Blue pursuit force conducted an ultra-long-range shot at the future position of the Red heavy fighter.

Observation from the Silent Hammer 680 confirmed that they were unable to score a hit.

Meanwhile, the heavy fighter and the patrol boat were closing in on each other. The patrol boat retransmitted its observation data, with slightly improved accuracy, to the pursuit aircraft.

More than a dozen ultra-long-range shots failed to score a hit on the Red heavy fighter. However, the heavy fighter turned around before it could get the patrol boat within range, and gave up on pursuing the patrol boat.

All three of the decoys, including the No. 2, which was in stealth and on standby, were captured by the heavy fighter, attacked, and deemed to have been disabled.

Blue's patrol network lost one of its relay points, and several unmanned probes were attacked and deemed to have been disabled, temporarily reducing its capabilities. However, after Silent Hammer 680 escaped the attack of Red's heavy fighters and resumed relay duties, Blue's patrol capabilities gradually began to recover.

"Our coordinates, which should be at the relay point, are different, and we can't recover the many unmanned probes that were eaten, so it's not exactly the same as before, but I think it's back to about 90%."

Kiara in the operator's seat updated the status of the patrol network in the managed area from the reconfigured network. It had moved quite far from its initial position to avoid Red's heavy fighters, but it could still function as a relay point.

"So, what happened to the command and communication network?"

"Both Blue and Red are operating normally."

Marika was fumbling around on the 3D display with a difficult look on her face.

"Our headquarters hasn't been able to confirm whether the command network was successfully hijacked. But if we dealt with it, the enemy would know that we were aware of the attack on the command network, so we decided to cut off the command network without any active countermeasures."

"Really!?"

Kiara checked the current situation with a quick keystroke. Marika answered.

"The instructions came through the battle information network. It was from the direct higher command system, in our case, the control of Myradodo. I think Grunwald is beyond that, and Grunwald is directly connected to the fleet headquarters."

"The command network's strength is that it can bypass the command system in the organization and deliver the necessary orders to the necessary places to move them, so it was pretty bold to throw it away."

Chiaki looked around at the wide-area display of the battle situation.

"Well, if the battle has been going on for so long and the situation is at a stalemate, and the future predictions are bleak due to the difference in military strength, it makes you feel like taking a drastic measure if you're going to lose anyway."

"Really?"

Kiara quickly read the latest situation displayed.

"The combat information network takes priority over the command communication network. I'm surprised the instructors allowed something so outrageous."

"Well, if you can't trust the command communication network, you have no choice but to ignore it for now."

"Even so, this is a setting that allows all forces to be separated from command, even if only temporarily, and to act independently. The war has progressed so far that they need to deal with the situation in front of them, so it's unlikely that all forces will suddenly withdraw from the front line, but in the worst case scenario, the front line could collapse."

"If the battlefront collapses during the graduation exercise, it'll be hard to judge the grades of the graduates."

Marika said as if it was none of her business as she switched the control panel.

"I'm going to change the display a bit. Um, is this the mode?"

The 3D display that showed the latest situation on the main battlefield, where the melee continues, switched between several patterns.

"What do you want to see?"

"I realized that I don't have the talent to read the actual fleet's positions and movements, so I thought that if I changed the display, maybe something would work."

"What do you want to see?"

Kiara asked again, to which Marika replied.

"So, I thought that if we could see how the information flows, as I said before, and how the battle information network and command communication network are used, it might look a little different."

"I think it would be harder to see if we just displayed the amount of information and how it flows, but I'd like you to take control."

"I'll leave it to you."

"Just wait a moment..."

Kiara quickly tapped the control panel.

The cockpit was immersed in a torrent of brilliantly colored light.

"What is this!"

"I tried to visualize all the information flowing on the battlefield where fleets are fighting in a chaotic mess."

Kiara explained. "The combat information includes your current position and situation, as well as the positions and situations of enemy ships in the surrounding airspace that you can directly sense, so if you display everything, it will look like this."

"Um, so is this all the combat information for both enemies and allies?"

"Yes. I visualized all the communications flowing through normal and FTL communications. As expected of the latest model, it moved smoothly even when everything was displayed, I thought it would freeze up immediately."

"It also displays enemy combat information!?"

"Even if you don't know what they're communicating, you can't hide that they're communicating something. Even if you can't analyze the content of the communication, you can get a good idea just by knowing the source and volume."

"I'll just show allies whose communications I know. Can you display them selectively?"

"Easy."

Kiara tapped the control panel. The situation in the cockpit, overflowing with a torrent of light, didn't change much.

"It's not decreasing at all."

"Well, it's because it displays all the communication status of all allied ships. It has more information than a battle situation where only the current position and trajectory are needed."

"I don't need normal communication."

Marika stared at the torrent of light.

"Can you only display FTL communication?"

"Of course."

The three-dimensional display that had been overflowing and covering the cockpit suddenly decreased.

"With a battlefield this big, the network needs to move at FTL speed to deliver information."

The torrent of light thinned out like a cloud of thin threads tangled in countless knots. Countless thin lines are connected outside the battlefield. The countless lines glow for a moment and then disappear. Information is exchanged frequently within the battlefield, so it seems like it never disappears.

"Displaying only FTL communication, the 'blue' battle information network," Kiara said.

"Anything else you'd like to order?"

"Can you display only FTL communications from outside?"

"From outside? From outside the battle zone?"

"From outside the star system."

"Fast-than-light communications from outside the Gaia star system? Well, long-distance communications are in a different dimensional depth than short-distance communications, so it's easy to separate them."

Kiara tapped the control panel.

Countless lines pointing outward spread out. Marika cried out.

"So many!?"

"Well, most of the communications are with the central core star system, which is the most crowded in the galaxy, and there will be a lot of spectators during the graduation exercises."

"Can you display only received signals?"

"Impossible."

Kiara answered immediately.

"FTL communication is like opening a hole to another dimension by targeting a specific coordinate, so both sides need to confirm it. With normal communication, you can just send out information one way, but with FTL communication, you have to set up a wired circuit each time, so you can't just select the sender or receiver and display it."

"Now that I think about it, that's true."

Marika didn't take her eyes off the 3D display.

"Can you overlay the command communication network?"

"Yes."

The web of light covering the battlefield became slightly darker.

"Just 'blue'. And 'red' too?"

Marika thought for a moment.

"Both."

"Yes."

The web of light covering the battlefield became a little darker again. However, the light was much thinner than the web of the combat information network.

"Command and communication network, only 'Blue', display from outside the system."

Only a thin, faint web of light was projected in the cockpit.

"The 'Blue' fleet headquarters is right in front of us, over Gaiapolis, and the main fleet is right in front of us, so there aren't many FTL connections from outside the system. However, since it's a graduation exercise and attracts a lot of attention, there are a lot of connections."

The modeled long-distance connections to the 'Blue' command and communication network seemed to be divided into several lines and spread across the entire galaxy.

"The command and communication network is independent for each Numbers fleet, and the structure and operation of the training fleet is basically the same, so the thick lines going outward are from other training fleets. The thickest line going inward is probably a line directly connected to the Joint Staff Headquarters in the core star system."

After hearing Kiara's explanation, Marika sighed lightly and shook her head.

"No good. I still don't know."

"It's reckless to try to see the battle situation just by looking at the flow of information. Even if you monitor the FTL line from the outside, you can't tell if the amount of information flowing is large or small, or whether it's being received or sent. It's difficult to judge the situation from the amount of communication even if you're watching it all the time."

"The command communication network will start to be disconnected one by one from the fleets in the melee."

Chiaki reported the latest information on the battle information network.

"Instead of disconnecting all of our forces at once, it's up to each of us to decide when to disconnect from the command communication network."

Kiara quickly checked the information.

"But if all of our forces are disconnected from the command communication network, surely 'Red' will know right away?"

"It seems they're creating dummy forces under the 'Blue' command communication network, and transmitting confirmation and battle situation information from there."

Chiaki roughly read the information that was flowing through the battle information network.

"If you want to create a battlefield that listens to the command and communication network separate from the actual battlefield and continue a separate battle there, you can't do that without a bunch of electronic battleships."

"Okay, so this time, just Red."

Kiara switched the display.

"The Third Fleet's fleet headquarters is in a core star system, so there are a lot of deep, high-dimensional, FTL lines."

"If Red has taken over our command and communication network..."

Marika muttered, thinking with a lack of confidence.

"I wonder if we can take over Red's command and communication network from our side."

"From our side?"

Kiara's hand stopped.

"You're trying to mess with Red's command and communication network with this patrol boat!?"

"Well, it would be easy if we could just talk about it here, but if they're the ones messing around, we can do the same."

"Well, it's the most basic of basics when it comes to fleet battles, messing with the enemy's command and communication network and hopefully taking it over, but..."

Kiara groaned.

"Why did you come up with something that seems so pointless and takes so much time again?"

After thinking for a moment, Marika answered.

"Because I thought the quickest way to understand the enemy was to think about how to wage war."

Kiara looked at Marika with an astonished look on her face. She returned her eyes to the display.

"Whether we win or lose, we can gain knowledge, and we have to study a lot of things to launch an attack in the first place, but the war has already started, so starting a new operation now is a bit of a rush job."

"Of course, it's impossible to take over the enemy's command and communication network with just one patrol boat."

Marika turned her eyes back to the 3D display of the communication network.

"But, even if it's just for now, if we're allowed to act independently outside the command network, that means we can do whatever we want. Since we're doing our job of maintaining the patrol network, I thought it might be okay to try something beyond that."

"Fortunately, the Red fleet is the same as ours, so the command network structure is the same, and we can apply the knowledge we have. It's probably a spur-of-the-moment plan, but if you can influence the course of the battle while working as a relay for the patrol network away from the front line, surely it would be quickest to try to get in touch with the enemy's command network?"

Kiara looked closely at Chiaki's face as she expressed her opinion, then back at Marika.

"That's good. You've been friends for a long time, haven't you?"

"No, not really."

Seeing Marika smiling fondly, Kiara looked around the display.

"Certainly, attacking the enemy's command and communication network is a big deal, but maybe we could do it on the side while we're working, and it might be the quickest way to get a grip on the trend here, away from the main battlefield. I don't know how much trouble it would cause, but if we think about the results if we succeed, it might be worth it."

"So, can we do it?"

"I don't know if we can do it, but I just can't think of a reason to actively oppose it. But do you have a concrete plan?"

"No."

Marika smiled.

"So, I think I'll start by talking to everyone."

"Who's everyone?"

"First, I'll propose the operation to the combat information network of my classmates who were transferred from Grunwald to Myradodo. As expected, there won't be any more powered suits deployed during this exercise, so everyone in my class has been assigned to work inside the Myradodo or on its aircraft. The officer cadets are very talented, so if I talk to them, I might be able to find someone who knows something, or someone who knows someone who knows something."

"That's a pretty concrete plan."

There was no sarcasm in Kiara's sigh-laced voice. Marika looked at Kiara.

"You're going to do it yourself, aren't you?"

"I was the one who suggested it."

Marika turned her eyes back to her console.

"Now, how can I say this to get everyone to go along with it?"

"This is so hard!!"

Lynn cried out.

"Thanks to this unscripted development, how many times has my work increased that I could have completed by casually observing from the corner of the electronic battleship?"

Lynn started to do some mental calculations almost unconsciously, but stopped.

"There's no need to increase the load by doing calculations that don't need to be done. Um, are all the mechanisms working properly?"

While grumbling, she looked around at the 3D displays that were multiplexed and projected around her.

The report that the "Blue" command and communication network was being eroded by the "Red" network attack was reported to the headquarters from the electronic battleship on the front line, and after verification, the possibility was confirmed and a response was decided. Lynn does not know to what extent Bentenmaru is involved or controlling it.

The direct attack on the command and communication network was detected from the start of the exercise, and it was dealt with according to the textbook. However, the situation in which the command and communication network came under the control of the enemy "Red" as in this case was not included in the assumptions made for the exercise.

It is not uncommon for exercises to develop in an unexpected way. Since battles often develop in unexpected ways, it is customary to deal with incidents as they arise, even in exercises.

In response to the possibility that the command and communication network may have been hijacked, the "Blue" headquarters, as Bentenmaru had predicted, chose a tactic that did not use the command and communication network rather than dealing with it head-on.

The fleet battle continues to be a melee, but it is clear from the strength ratio that "Blue" will eventually be pushed back and lose. And from the battles so far, "Blue" is identifying the exact positions of the higher-ranking command ships of "Red"'s main fleet.

In order to succeed in the planned concentrated attack on the higher-ranking command ship, the "Blue" headquarters will make it seem as if the "Red" team has succeeded in taking over the command communication network by not responding directly to it. Regarding the changes in the progress of the battle that will occur when the command communication network is not used, they will spread false information on the combat information network and at the same time deceive the enemy with electronic jamming.

As a result, the "Blue" combat information network will simultaneously display the battle situation that would occur if they followed the orders from the command communication network and the actual battle situation. Only false combat information will be returned to the command communication network, and actual combat information must be used on the scene.

It is common to think that the enemy's combat information network is intercepted, analyzed, and evaluated. In order to make it seem as if they are unaware of the enemy's takeover of the command communication network, both the actual situation and the situation the enemy wants must proceed simultaneously.

Since this is a development that was not in the scenario, the construction of a fictitious combat information network that is directly connected to the current command communication network was left entirely to junior members who were not currently in a frontal battle situation. As a result, even though it was a graduation exercise of total war from the front line to the rear, the freshmen and juniors, whose main duties were supposed to be watching and helping out, were called upon to take on the huge task of rebuilding the Red's combat information network.

The structure of the combat information network itself would be a complete copy of the one currently in use. Combat command according to the command communication network and the accompanying combat information would be automatically generated based on real battle developments.

As time passed, the imaginary battle situation under the command of the command communication network would diverge from the real battle situation that does not follow the command communication network. If the combat information obtained by the command communication network taken over by Red becomes too different from that of Blue, Red would realize that the command communication network it had taken over was not working and would change its tactics.

The headquarters planned to launch an all-out attack on the higher-ranking command ship before Red determined that the command communication network had been disabled. Preparations for this were being made both in the airspace where the melee continues and in the rear.

"For now, it's working fine, isn't it?"

Lynn tried to overlay the battle situation generated from the real battle information with the battle situation generated from the fake battle information network that was automatically generated to deceive the Blue's command communication network.

The Blue's forces had already been separated from the command communication network. Since the situation differed for each ship and department participating in the battle, it was up to each individual to decide when to leave the command communication network.

According to the information from the battle information network, even at the front line, more than 90% of the ships had left the command communication network and were acting independently. However, since the melee battle between the two fleets continued, there was not much difference between the actual changes in the battle situation according to the optimal tactical predictions and the fictional changes according to the battle command information.

"I think we can still insist that it's within the range of error."

Lynn confirmed that there was little difference by using a flash to make the different parts of the two battle situations that were overlaid in the same space stand out.

"Even though we all made this up, the fake combat information network seems to be working without any problems. Oops."

In a corner of the battlefield, a warning was issued that the "blue" cruisers, who were continuing their mobile combat in pairs, would lose sight of the enemy ship in a dozen moves if they continued as they were. Lynn checked the battle situation in the airspace around the cruiser, and after four hit-and-run maneuvers, specified the shadow of the "red" enemy to aim for.

"Since the command and communication network is hardly useful in the current melee, I don't think the fake combat information network will deviate too much from reality for a while."

Lynn once again superimposed the overall battle situation, both real and fake. Fast forwarded the predicted developments.

"But the longer it takes, the more the situation diverges. Someone deep inside the net must be checking not only our battle information but also that of 'Red', so somewhere they will notice that the battle situation seen by the 'Blue' command and communication network is different from that seen by 'Red'. That's probably the time to fight, nee-san."

Lynn checked the latest battle situation. She noticed that a new tactical policy had been proposed for the electronic warfare that was continuing throughout the entire battle airspace, separate from the battle situation on the front lines.

"A tactical proposal on the battle information network, huh? Ninety-nine percent of random ideas are instantly shot down with people saying they're stupid, but the fact that it's been brought up here means that it has some support."

Tactical policies are not often discussed on the battle information network, where information on the latest battle situation and how to respond to it flows. In the first place, a network for exchanging information is not a good tool for discussion.

With the withdrawal from the command and communication network, the combat information network was flooded with proposals for tactical policy. Most of them were not from the front lines where they were busy with frontal combat, but from the rear where they could monitor the battle situation at leisure.

The Blue combat information network was operated by novice cadets who were still in the training process. The proposals were from cadets with little combat experience, so most of them were amateur ideas. Most proposals were usually rejected without any scrutiny, with various problems pointed out, so it was rare for one to be considered for a long time.

"So, what in the world did this novice come up with?"

Lynn opened the summary that was compiled.

The proposed tactic was simple. A direct attack on the Red command and communication network. While the Red thought that their attack on the Blue was successful, the Blue side would attack and neutralize the Red command and communication network.

The instructors had checked at a fairly early stage to make sure that they had not violated any prohibited items during the training. Very unusual for a proposal from a combat information network, the idea has lived on for a long time and some units are already considering concrete measures.

"If the enemy is doing it, then there's no problem if we do it ourselves, right?"

Lynn thought about possible ways to attack the command and communication network of the enemy "Red" rather than the friendly "Blue".

"Ahh..."

Lynn smiled evilly as he remembered the authority that should not have been in his hands.

"As a rookie cadet working on an electronic warfare ship, I can't really offer any great tactical suggestions, but I don't know anyone who's in a position to do anything."

"Ninety percent of the "Blue" forces have left the command and communication network."

Schnitzer announced.

"We have determined that the "Blue" command and communication network has lost its command capability."

"The battle situation remains unchanged."

Hyakume said. "The melee between the two fleets continues. The combat information network seen by the headquarters has been completely replaced with a dummy. From now on, the command and communication network of 'Blue' will issue orders based on information obtained from the fictitious combat information network."

"I didn't intend to get so involved," muttered Coorie, who was monitoring the nearly infinite amount of information flowing through the complex network.

"Now, we have to go along with the trends of the graduation exercises. I hope the results will be worth the trouble."

"At least, they seem to be willing to achieve results on the front lines."

Schnitzer passed new data to Hyakume and Coorie.

"A new tactical proposal has been submitted from the 'Blue' combat information network, and it has received a fair amount of support from the field. It's unusual for this type of proposal, but it was quickly considered by the headquarters."

"Wow, it's rare for a proposal from the front lines to be adopted so suddenly."

Hyakume opened the data he had sent.

"So, what did you come up with to turn this stalemate around?"

"An attack from 'Blue' to 'Red's' command and communication network."

Coorie, who had seen the same data, succinctly summarized the proposal.

"Well, the other side is doing the same thing, so I guess the idea is to stop using ours and hit back."

"It seems like you're thinking of a few more unnecessary things though."

Coorie didn't stop operating the control panel.

"Look, two out of the three who came up with the idea are our pirates."

"Oh dear."

Hyakume's hands only stopped moving while he was checking the data.

"Our captains aren't in contact with the seniors in the yacht club, right?"

"We should have a means of communication in case of an emergency, but I don't think they're using it."

Coorie answered.

"In other words, this suggestion was made by the captains who were supposed to be maintaining the Blue patrol network on the patrol boats, and although they must have received communication from Luca, they came up with it on their own without discussing it with Lynn."

"That's what you'd expect from them."

Hyakume started moving his hands again.

"If the command and communication network was operating normally, there's no way that a random idea on the front lines would affect the whole team during such a large-scale battle."

Schnitzer explained.

"However, in this exercise, a special situation has arisen in which all of the forces under the command of 'Blue' have been temporarily removed from the command and communication network, allowing them to act independently on the ground. On the combat information network, all information from headquarters to the front line is treated equally."

"Well, no matter how useful the information is, if it is not supported by people with a good eye and progresses to the consideration of specific procedures, it will end up being just a chat in the middle of the battle."

Coorie visualized the movements of 'Blue's' combat information network.

"Right now, the exercise is at a stalemate with the fleet battle on the front line, and the front line is of course very busy, and the headquarters that has to command it must be difficult, but the other departments are not in such a cornered situation. They have the time to talk about unnecessary things."

"But is it possible for a proposal from one part of the front line to change the entire tactical strategy?"

"It's not unusual."

Schnitzer answered Hyakume.

"You've probably heard stories before about special forces finding out the enemy's weaknesses and determining the key targets of attack, or about important people being extracted from deep within the enemy's ranks and completely changing the situation."

"Well, that sounds good, but even though this is a drill, the situation is well-prepared and the operation is proceeding just like in real life. Even if information flows freely from top to bottom through the network, can an operation like this go smoothly without any preparation or preparation?"

"It might be impossible for a veteran who knows how to use the command and communication network and the battle information network to the core."

Coorie muttered.

"Maybe it would be possible for a cadet who has been educated in the ideals, not the reality of the field, and has not yet been influenced by them."

"The Imperial Fleet is famous for its quick change of pace."

Hyakume mixed it up.

"But, well, that's only possible if the command and communication network is still working, right?"

"So, what are we going to do?"

Schnitzer asked in a grave voice. Hyakume didn't answer. Coorie replied.

"What?"

"One side of the command and communication network has essentially lost its function, and the other side is subject to uncoordinated enemy attacks. Aren't the conditions now extremely favorable for our work to investigate external interference with the command and communication network?"

"I wonder?"

Coorie replied disinterestedly.

"I wonder if the Blue team, which has the latest equipment and training but is made up of only trainees, can launch an effective attack on the command and communication network. I don't know if the hypothetical enemy will react to it."

"If the Blue team cannot launch an effective attack on the Red team's command and communication network, the hypothetical enemy trying to control the battlefield will not move. But what if they launch an effective attack that will have an effect in a short time?"

"If the hypothetical enemy does not lose their will to control the battlefield even in that situation, will they be more aggressive in their actions?"

Coorie stopped, voicing his predicted development.

"Do you think it will go that well?"

"Our skill is to guide them so that it goes well."

Hyakume moves his hands at a fast tempo.

"The battle situation changes at the speed of light. That should be the same whether it's a virtual enemy, a training exercise, or a real battle. If that's the case, then if we can change the situation at that speed, it will be easier for them to intervene, right?"

"What do you think, Schnitzer?"

"I think it's an opportunity. Above all, if the situation is this special, it will be easier for us to intervene."

"I wish I hadn't interfered with the battle situation itself."

Coorie muttered to himself.

"Because if we start manipulating the battle situation to get the results we want, then what we're doing will become the same as what the virtual enemy is doing."

"Just win."

Schnitzer replied.

"As long as we win, we can justify any sophistry. You know the conditions for victory, right?"

"The thing is not to win too much."

Coorie muttered.

"It's a pain to have to control the virtual enemy so they don't notice us and the battle doesn't become unnatural."

"We and Schnitzer will look after Blue."

Hyakume came to the rescue.

"The current situation should be enough to monitor the external interference in the command and communication network and changes in the battle situation. If it goes well, we'll have the capacity to support them."

"We'll join in the attacks that Blue launches against Red's command and communication network, and control the battle so that it doesn't collapse."

Coorie was still muttering.

"I don't want to get involved. With the current authority, we can monitor Red's command and communication network. If that's the case, we can just teach Blue's attackers some magic spells and see if they can do it, and we can monitor the attack route."

"The Blue cadets seem motivated."

Hyakume sent Coorie a summary of the latest situation.

"I can't believe they could create such a system without a strong chain of command."

Schnitzer is also looking at the same data.

"The base of attack on Red's command and communication network will be the captured aircraft carrier Myradodo. Even though it was detached, it was still connected to Red's command and communication network until yesterday, so it's a reasonable choice."

"And then, we'll build a network to attack Red's command and communication network with Myradodo at the center."

Hyakume adds more information.

"Even though we're allies in this exercise, it's basically the same Imperial fleet. There's no need to analyze the structure of the enemy's command and communication network or study its communication protocols. The problem is just how to intervene in the enemy's command and communication network without being noticed and how to manipulate it."

The Myradodo was detached from Red's command and communication network when its central computer was taken down and takeover was declared. The settings of the allied command and communication network and combat information network were automatically erased when the central computer went down.

The automatic deletion setting, which can be considered a self-destruct mechanism for communication systems, is essential for protecting information, especially in military spacecraft. If the entire communication system, which is a means of transmitting information protected by multiple layers of encryption and check functions, falls into the hands of the enemy, it can completely change the outcome of the battle.

If it is discovered that a friendly ship has been captured by the enemy, not only will the communication settings of the captured ship be deleted, but the friendly network settings will also be updated. During combat operations, communication settings are usually updated at a faster pace than in peacetime to protect confidentiality. Therefore, even if the deleted communication settings of the captured ship can be restored, it will be impossible to intervene in the enemy's communication system unless the future update schedule is deciphered.

In the captured Myradodo, attempts were made to restore the communication system settings as part of the training of the trainees who had been transferred aboard. However, the capture of the Myradodo was publicly observed by both enemies and allies from the beginning to the end of the battle, so ``Red'' changed the settings of both the command communication network and the battle information network during the battle.

Although the Myradodo was once within the Red's command and communication network, it no longer has that advantage. Using the captured ship as a base for attacking the enemy's command and communication network allows them to conserve the resources of their allies' communication systems, which are valuable combat resources.

In order to carry out the battle simultaneously in the battle airspace that spreads across the entire Gaia star system, Blue has built a new FTL network centered on Myradodo. Because it is not a key priority target, the new network is set up within the battle information network. That is why any part of Blue can participate in the attack.

"I can't say that what you're making is very good," Coorie said with a smile as he read the information that was added one after another.

"But, I think we can give them a thumbs up for the efficiency of starting a new war so hastily."

The battle information network is operated to share information equally from the headquarters to the front line. The command communication network is operated to ensure that orders from the headquarters are delivered to the front line.

The battle information network carries everything from the latest information on the front line to idle chatter from the rear. All information is shared equally, but the amount of information that each individual participating in the battle can touch and evaluate is limited.

The amount of information flowing through the battle information network is high even in peacetime, and increases even more when combat begins. The more the battlefield expands and the more people participate, the more information there is. It is not realistic for one person to monitor all of it.

The headquarters monitors all of the battle information flowing through the network to grasp the latest battle situation. They respond to the latest battle situation, and if necessary, follow up on any arbitrary actions, or they may cancel them by order of the headquarters.

Concepts for attacks on the enemy "Red" Army's command and communication network were submitted simultaneously by surplus forces, that is, those waiting in the rear who could just chat away on the battle information network. They ranged from mere ideas to those that were well-formed operational plans, and one of them was submitted jointly by Marika and the others on Patrol Boat No. 680.

The fleet battle between the main fleets was in a stalemate, with no room to start a new operation. However, the headquarters, rear fleet, supply fleet, and guerrilla forces had the luxury of being far from the front lines.

"As expected, or rather, what can I say..."

As Lynn watched the situation, she was impressed.

"Is it the management skills of the headquarters that are amazing, following through on improvisation that wasn't even in the script and turning it into a strategy, or is it the military academy that is amazing, being able to follow ideas on the spur of the moment and submit procedures, equipment, and personnel one after another...?"

"Since information processing capabilities are different for each person, I thought that sharing information from individuals on the front line to HQ would only increase confusion, but if you manage it well, you can even carry out operations that HQ did not plan."

Lynn stopped tapping on the console and thought for a moment.

"I guess it's the difference in personnel."

In a normal military, there is sufficient selection and training before engaging in actual combat. However, personnel shortages are common in almost all military forces, and it is impossible for all soldiers to have the highest level of training.

The Imperial Military Academy, along with the Space University, selects the highest level of intelligence from the entire galaxy. Intelligence and ability are the selection criteria, but there are many experienced people, and there is an old joke that military academies are most excellent immediately after entering.

On the other hand, the Numbers Fleet is said to be the strongest Imperial Fleet, but not all of them are home-grown graduates of the military academy. The majority of those at the top of the chain of command are home-grown graduates of the military academy, but there are also many local recruits and conscripts, and the percentage increases the further away from the center you go.

The Third Fleet, which shares the protection of the core star systems with the Second Fleet, and the training fleet that is used in large-scale exercises against the military academy, are made up of top-class elites. However, personnel who have been trained in active duty do not have the flexibility of officer cadets who are being trained based on ideals.

"But this isn't about flexibility or anything like that."

Lynn shook her head again.

"The amount of data that touches the HQ from the front line is the same, the difference is whether the HQ can process data collectively with many people or the front line can process data intuitively with few people, so is it like if you put the capable person on standby, they will start analyzing it by themselves or something like that?"

Lynn shrugged lightly.

"I feel like I've seen that situation somewhere before."

He turned his eyes back to the display and changed the display.

"Well, the upperclassmen who received a thorough education are in the middle of a melee on the front line, and the ones who are bored are the freshmen and underclassmen who are not used to war, so they are good at thinking about unnecessary things. It's easy if they hit the target, but if they miss, it's going to be hard to manage all these people at the HQ."

He limited himself to the direct attack operation of the command and communication network against "Red" and checked the latest situation.

It had already been decided that the base for the FTL communication line to intervene in the command network would be installed on the captured ship, the Myradodo. Immediately after the capture of the Myradodo, the analysis team transferred from Grunwald 59 and, with the cooperation of the headquarters, attempted to break through the security of Red's command system.

As soon as the Myradodo's central computer was locked and the capture was declared, several emergency measures were implemented and the Myradodo was forcibly removed from Red's command network. All of the complex security procedures were destroyed, and the data area was thoroughly erased multiple times. The manufacturer guarantees safety with these functions.

Apart from the manufacturer's official opinion, any number of methods of restoration are invented and experimented with. The configuration of the FTL communication line of the command network has been revealed in considerable detail from observation data from both sides during battle, and if they can find out where the data to be restored is in the nearly infinite memory area, and even where the backup is, the possibility of achieving their goal will increase.

According to the command of the headquarters, not only the on-board analysis team but also the empty Blue information gathering forces were concentrated to analyze the data domain of the Myradodo.

Two Red Minosdelova-class aircraft carriers were captured. The procedure for erasing classified information after capture was exactly the same, with the only difference being the time of issuance. For this reason, the headquarters decided to concentrate its limited resources on one carrier rather than splitting them between the two.

A dedicated FTL line was set up as a channel for the analysis, and Blue candidates who were able to participate joined from all over the training airspace. The concentrated analysis forces have achieved many successes, including connection information that was saved from erasure because it was stored in a separate area as a backup.

However, they are still far from their goal of directly intervening in and attacking the Red command and communication network. The outline of the operation and the attack procedures have only just begun to take shape, and even the setting up of the FTL line remains a simulation.

"Well, if we set up a line to the command communication network at this stage when we're not even prepared to attack, and it gets caught by security and rejected, it'll just increase our vigilance unnecessarily. But if we keep going at this pace, we'll never be able to move on to the actual operation."

Lynn looked again for the procedure for intervening and attacking the Red command and communication network.

Headquarters had hastily prepared a rough operation progress based on a scenario for an exercise to intervene in an enemy communication network, and it was sent to the network. It was just one of the standard exercise scenarios, with the names and proper nouns of the enemy army changed to fit the current situation, but it was useful.

"Even if we succeed in intervening in the Red command and communication network as planned, there will inevitably be a time lag before the effects appear on the ground, and if we want to achieve results during the exercise, we need to finish the operation at least half a day before the end..."

Muttering to herself, she checked the schedule that Headquarters had put out, which included some hopeful thoughts.

"If possible, we should finish setting up the FTL line and start contacting the command and communication network by the scheduled time... but it's already past that time."

There was no time to take the time to intervene in the command and communication network via a FTL line. Ideally, the FTL line connection and intervention in the command network should be instantaneous.

New operations, not just during battle, are carried out only after the means are thoroughly considered and confirmed in advance and deemed reliable.

This intervention in the command network, if it actually begins, must be successful in a very short time. To do this, all procedures must be confirmed before the operation begins, and the necessary means must be secured and prepared.

The expected procedures are to set up a FTL line to the command network, break through security to join the command network, and directly intervene in the command network. In an attack, they will gain higher command authority to spread false information or fleet command information.

Many methods of attack have been assumed, but none have yet been deemed effective. Based on the state of Blue's command network, which was previously attacked by Red, the methods have been scrutinized and analyzed, but several traces of unnatural alterations have been found, and the method has not yet been identified.

"Well, that's how it goes."

Direct attacks on enemy communication networks, not just command and communication networks, are not a strategy that should be carried out repeatedly. It is a surprise attack aimed at disrupting information, and if there is no combat, it will end up just disrupting the enemy. If effective attack operations are not prepared afterwards, it will not be effective.

The headquarters' assessment of the intervention in the command and communication network by "Red" against "Blue" is that it was cut off before it could take effect, and no real damage was done.

"In the current situation, the referee would probably give the same assessment."

That does not mean that the battle situation is favorable for "Blue." Although "Blue", which is already inferior in frontline strength, is maintaining an equal front with "Red", it is worthy of praise, but there is no doubt that it will be defeated in the future.

"So, we will prepare for the attack with the idle forces, but we will not start the operation until we see a trump card that can actually be expected to produce results."

Lynn once again presented the tentative schedule for the operation by the headquarters.

"The most time-consuming and difficult part is how to get into the Red command network after setting up the FTL line. The most we can hope for is to recover the security code from the Myradodo, but even then, the standard code change should be done when an allied aircraft carrier is destroyed by the enemy."

Security codes during battle are changed much faster than in peacetime. Tens of thousands of patterns of codes that change over time are distributed to the entire fleet in advance, and which one to use is communicated through the command network.

Some ships block communications for specific purposes and isolate themselves from all networks. Some ships are attacked by electronic jamming and other attacks and leave the network as part of their defense. When reconnecting to the network, they first go through the combat information network, and then return to the command network with the current security code.

If the security code has not been changed, returning to the command network is completed instantly with just a standard check. If the security code has been changed, the ship can respond to several security code changes and prove that it has the same security code as an allied ship before returning to the command network.

Red, an allied ship that has suffered losses with two large aircraft carriers captured by the enemy, should have followed the procedure to change the security code of its command network.

"I'm sure we can restore the security code for this operation, but the problem is confirming the latest code to let us into the command network."

Because we're in the middle of an operation, in combat, and an allied ship has been captured, Red's command network should be under the strictest security. In addition to the usual procedures, they'll probably also be checking their current location using the coordinates of the FTL line and comparing it with combat information.

"...In that case, rather than trying to get the command network to recognize us with a new FTL line, it would be quicker to take over the settings of the enemy ship's currently operating FTL line."

Since a FTL line is like maintaining a communication system in hyperspace, various parameters are required for the settings, including the coordinates and vectors of both sides in normal space. Once set, adjustments to maintain the line are made automatically, but the parameters are also used to confirm the current location of the communication partner.

"If that's possible, it would be much easier to take over the FTL line of a higher-ranking command ship. Now, what's the situation in the melee where we're trying to corner the command ship?"

The overall battle situation between the main fleets remains at a stalemate. However, in exchange for the increased damage assessments that come with the increased number of anti-ship battles, the information on enemy ships is also steadily increasing.

"Oh, as expected, since we've been fighting endlessly, we know the names and current locations of the top 12 command ships. So, what about the enemy ships with minor damage that are likely to survive as long as possible at the top, and the electronic battleships with well-equipped communication equipment that are likely to make contact soon?"

Several candidates came up. Lynn stopped sliding her finger over the control panel and thought for a moment.

"With so many opportunities for contact, it's tempting to try and take over the FTL lines one by one and then try again if you succeed, but that's no good. If you fail the first time, they'll be wary, so it will become increasingly difficult to try again, and the success rate will decrease."

Since the time for the exercise is limited, the opportunities to carry out the operation are also limited.

"It's better to think of it as a one-shot deal. Considering the time left in the exercise, if we don't succeed in connecting to the command communication network in one shot, the disruption results will not be as good as they'd like."

Lynn roughly put together a plan for the operation. As the "Blue" electronic battleship launches a close-in attack on the "Red" higher-level command ship, it will perform a precise reading of the communication system and set up a FTL link based on the observations.

"It won't be possible to do it in one go. It would be more realistic to approach the target higher-level command ship at least two times, and if possible, three times, and try to intercept the FTL link along with the command communications network on the third try."

Lynn continued to mutter to herself as she drew up a rough operational procedure.

"But, with a plan like this, it wouldn't be surprising if it was rejected before it even reached HQ. That means we need a card that can reliably get into the command communication network after taking over the line."

Lynn displayed a list of the necessary operational procedures on the display and tapped herself on the forehead.

"If I was going to cheat just once, I think it would be here."

"Hmm?"

Coorie had crawled out from behind the additional display and control panel and was picking at the high-nutrition snacks that the ship's doctor, Misa, had brought for him when he noticed a familiar ringtone and a corner of the communication panel starting to flash. Misa, who was delivering rations to Hyakume, asked.

"What?"

"It's Luca."

Coorie, with only the upper half of his robe hidden in his nest, pulled out a communications monitor that had been buried thanks to the additional display from a gap.

"Via company communications, you're still in the electronic battleship in the training airspace."

"Is it urgent?"

Hyakume quickly opened the ration pack he had received from Misa.

"It's being sent over company lines from the electronic battleship in the battle airspace at this time, so it must be urgent."

Coorie displayed a message from Luca, sent with minimal documentation, on the monitor.

"You can take a look."

"It's fine."

Misa peered in from the side. After reading it, Coorie tapped the monitor.

"Read it."

The same message was forwarded to Schnitzer and Hyakume, who were also seated and taking their nutritional supplements.

"It's not from Luca, but from Lynn who boarded the electronic battleship via Luca."

"You need the security code for the Third Fleet's command communication network?"

Misa frowned after reading only the necessary parts.

"Oh my, so the cadets are trying to cheat during training?"

"That's what they said."

Coorie spun his glasses around happily.

"He said he'll cheat, so send him a stack of wildcards."

"Hey, are you sure?"

Moon Eyes, who had read the same message, spoke up.

"If you give a stack of those to a kid who can cheat even without wildcards, won't he blow up not only the game but the whole casino?"

"He's a kid, but he has a good criminal record, so as long as he doesn't get the timing wrong and doesn't miss a beat, he should be able to use it just fine."

"Are you giving him the higher authority for the judge?"

Schnitzer asked. Coorie took another bite of the snack.

"Rather than handing them a simple tactical weapon and letting them move around clumsily, it would be better to leave them a heavy strategic weapon and let them act calmly."

"They're really trustworthy."

"It wasn't us who trusted the young people and pirates and scouted them first, it was the Intelligence Department."

Putting the last snack into his mouth, Coorie energetically stood up and slid into the electronic battleship.

"In any case, if the cadets are going to get their hands on the Third Fleet's command and communication network, they'll need fingers that can control it. Who do you think is better suited, the captains or Lynn?"

"That's true." "She's got a criminal record."

Listening to Hyakume and Schnitzer's voices, Lynn tapped on the control panel.

"It's a good thing Luca hasn't left the electronic battleship. We can send the necessary data without going through the communication line for the cadets."

She noticed a red dot flashing in the corner of her eye. After sending the message, Lin, who had been thinking about that, immediately responded to the official message sent to her.

"As expected, you're fast."

A cold military message appeared in her field of vision.

"You're here, we've been waiting for you, Instructor Luca."

Lynn looked around the electronic warfare command room of the sub, where she worked. She felt a strange sense of expectation swirling around, wondering whether to start a new operation or maintain the status quo.

"Cadet Lin, we're going to take a toilet break."

As she lowered her seat from its usual position, Lynn called out.

"I'm leaving the site for a while. I don't have any work to take over."

"A meeting in the toilet, really?"

Lynn closed the door to the toilet stall, which had been one of the few places to maintain privacy on a warship during operations, and locked it just to be safe.

"How many times can you use the captain's quarters? This is the easiest place to hide."

After confirming that the card-shaped jammer was working, Luca took out a small memory capsule from inside his uniform's pocket.

"Your order comes with a message from Coorie."

"What?"

"Be sure to read the instructions before using it."

After carefully examining the memory capsule on Luca’s finger, Lynn took it.

"Got it. So I guess this wildcard is even bigger than I was hoping for."

A black and white sign with white text

Description automatically generated

"Are you going to watch it here?"

Luca asked Lynn, who had popped the memory capsule in the private room.

"Well, if we're in the jammer's operating range, doesn't that mean this is the safest place in the electronic battleship?"

A simple message was displayed in 3D from the memory capsule.

"If I take one step out of here, I can't rule out the possibility that I'm being watched even in the bathroom, so..."

Lynn screamed when she read the 3D message that was displayed after popping the memory capsule.

"What's wrong?"

"Hmm."

Lynn closed the 3D display while thinking of words to explain it to Luca in an easy-to-understand way.

"When I ordered wildcards to give me an advantage in the battle, I received a bunch of magic wands that can change the rules."

"What's that?"

"This is a training exercise, so the referee has a firm grasp of the movements of both sides, from preparation to deployment. Therefore, the referee can monitor the command communication network or the battle information network, regardless of whether it is friend or foe."

Luca listens in silence.

"It would be a pain to create a monitoring channel every time just for the exercise, and it would also put security at risk, so the referee has a wildcard that can access as many lines as he wants on both sides of the exercise, and he uses it to peek. So, I was planning to get security information about the enemy's command communication network from Bentenmaru, who is supposed to be monitoring the exercise, and use that to open it, but it's like I received a magic wand that can open any lock."

"I wonder if our staff got tired of it and slacked off."

Luca’s eyes became slightly grim.

"Or are you thinking about something else?"

"Well, I mean, the commanders of this battle are Coorie, Schnitzer, and Hyakume, aren't they the best staff? Even if it means more work and burdens, they definitely won't cut corners to make it easier for themselves."

"So you're thinking about something else?"

"Probably."

Lynn closed the memory capsule's explanation.

A couple of women in uniform

Description automatically generated

"Generally, if you use a wildcard for the referee, a record will be kept and everything you did will be revealed, so you have to use it really well. Um, have you heard anything from Bentenmaru since then?"

"No."

Luca showed me both hands.

"We've been acting in secret as well, and we haven't even been in regular contact. But, well, if there's no information about that in the message you received, doesn't that mean the situation hasn't changed over there?"

"Even with the highest level of security, there's still a chance that it could be stolen and read. If the opponent is capable of doing that, there's no use in getting a wildcard for refereeing, but you don't want to go out of your way to let them know how you're doing by including Bentenmaru's battle situation, right?"

Lynn stared at the small message capsule.

"Well, we'll have to do our best to live up to their expectations."

"Aren't you being asked to do something unreasonable?"

Looking at Luca, Lynn laughed.

"I was the one who asked for a wildcard, so I can't say something pathetic like, "My hand is too strong, so I'll replace it." It's okay, I'll do something about it."

"Don't push yourself too hard."

Luca took out her jammer card and checked the latest situation.

"It's enough if I can do the work that I'm paid for."

"Understood."

"Time's almost up. Go ahead."

"Yes."

Lynn left Luca and left the private room. She washed her hands in the bathroom and looked at herself in the mirror.

"Now, time to get to work."

"That said, I never thought a wildcard for refereeing would come out, so if I don't use it well, I'll be found out in no time."

Lynn returned to her seat in the electronic warfare command room and thought about how to use the secret weapon that had arrived from Bentenmaru via Luca.

The means proposed for use in the operation must be legal within the scope of what is expected in the exercise. The wildcard for refereeing was clearly beyond that premise.

"If a low-ranking candidate brought something stupid, the instructor would be forced to come and kidnap and confine him, so that's out of the question. So, what should we do?"

The most time-consuming and dangerous part of the operation was breaking through security after connecting to the command communication network. If you fail here or take too long, you will not be able to join the command network, and all future operations will be automatically canceled.

"I was hoping to get the security code so that I could easily get through there, but even if I was told, it wouldn't solve the problem."

No matter how perfect and safe your operation plan is, it won't be carried out unless it is approved by HQ.

"The problem is how to create an operation plan that HQ will be satisfied with. I often hear that nearby allies are more troublesome than distant enemies, but I never thought I would be in that position..."

Suddenly Lynn stopped what she was doing and gave an evil smile.

"Oh, so that's what it means. If it's a wildcard for the referee, you can freely use it on allies instead of enemies, so I guess I should infiltrate the allies' HQ first and set up various traps. That's something that even a pirate wouldn't be able to suggest."

She started to move her hands furiously.

"So, we have to hack not only the enemy 'Red' but also our friendly 'Blue' and at least get away with it until we achieve our objective. This is getting interesting..."

He understands the structure and management of the command and communication network and the battle information network. The electronic battleship Carl Marie Isaac is connected to the 'Blue' battle information network, and there is no problem connecting to the headquarters.

"If we can get to the headquarters easily, then what we need to do is build a hideout with a back door so that no one will notice and we won't be blamed even if we use the referee wildcard."

"It's started."

Coorie muttered.

"What?"

Hyakume was sorting through a mountain of battle information.

"Nothing has started over here yet, you know?"

"It's not a battle, it's an electronic warfare. A new line has been opened in the Blue battle information network for the headquarters. It's from Carl Marie Isaac, which means Lynn has already started using her wildcard."

"Are you okay?"

Hyakume' hands are moving faster.

"If it's that easy to see from here, doesn't that mean the spectators can tell that something is going on?"

The military academy graduation exercises attract attention from all over the galaxy. There is also a live broadcast on the Imperial Fleet's official channel, and the Numbers Fleet's headquarters can observe not only both battle information networks but also the command communication network.

"That's right. If you play this game with the same rules as your opponent on the same board, you'll lose before you know it."

A sigh was mixed into Coorie's words.

"They used the wildcard we gave them to get in, and then spliced ​​together lines with low operating rates to suit their purposes. It's not like they've set up a new network, and the referee is always wandering around the network to monitor it, so they won't get caught. But we can't win this way."

"Just like Coorie is cheating outside the board, so the enemy can do the same thing?"

"Right. It's best to assume that if we can do it, the enemy can too."

Coorie nodded.

"If you've been watching all this time, suspecting an intrusion from the outside, and nothing's happened up until now, there are three possibilities. Either the enemy is really skilled, or we're really stupid, and the other one is..."

"The intruder is not outside from the start, but inside, right?"

"Right. So you set up a surveillance network with that in mind, and when you finally found a suspicious contact, it turned out to be a family member. It's good for your test, but if the hypothetical enemy had a surveillance network of the same level, they might notice it too."

"Are you even monitoring them in the first place?"

Hyakume said, moving his hands.

"If you're someone who uses higher authority to move around freely within the command communication network, which is famous for its strict security, it's easier to just ride on the security of the command communication network itself. Would you go to the trouble of monitoring a command communication network that you can infiltrate and move around in?"

"I would."

Coorie answered.

"If you know you're doing dangerous work, you'll protect yourself no matter who guarantees your safety. Or how about you? Hyakume or Schnitzer, can you just walk around recklessly just because you have the highest authority?"

The typing sounds from their seats stopped.

"I'll erase all my footprints and footsteps."

Schnitzer answered first.

"Otherwise, it won't be a rewarding job."

"But, if the potential enemy is that careful and cautious, then even if we do this much, we might not even be able to grab a single tail, you know?"

"That's fine then."

Coorie said.

"From now on, if the counterattack of "Blue" goes well in conjunction with the takeover of the command and communication network, the situation will change dramatically. We'll know if the enemy will attack after seeing that situation, or if they'll just watch quietly."

"If we don't get any good results after doing this much, then we'll have to prepare a bigger operation next time."

Hyakume said with annoyance.

"I don't think he's an opponent that can be easily decided, but I don't think he's an opponent that I want to deal with for a long time either."

"You should think about the victory conditions for that one."

Coorie didn't stop his hand.

"The hypothetical enemy has been moving around freely within the Imperial Fleet's high-level network, and although it's not a total effort, they have a track record of not letting the intelligence department get a hold of them. Since they have continued to succeed in hiding up until now, that should be a success story."

"If the hypothetical enemy's top goal is to stay hidden, isn't it difficult to catch them even in the current situation?"

Hyakume stopped his hand. Coorie answered while moving his hand.

"But, I can't imagine that someone who likes to set up a situation like hand-to-hand combat in a fleet battle wouldn't attack someone in such a favorable situation. The more complicated the situation becomes, the more willing they are to attack."

"Luca said that the hypothetical enemy is just finding the situation amusing."

Hyakume started moving his hand again.

"So, if the situation becomes even more interesting, they might try to intervene."

"Don't get me wrong. If we leave them alone and it becomes a special combat situation, the enemy can just watch it. If we create a situation where it looks like it might become special, and one decision, one simple piece of combat information, will converge to a normal training situation, then if they're into that kind of thing, they might not be able to keep quiet."

"So, our job is to support Blue right up to the point where his quick-fix tactics work."

Schnitzer said.

"If you manipulate the situation to get the development you want, then you're doing the same thing as the hypothetical enemy."

"That's why I said I don't want to do it."

Coorie said, clicking his tongue.

"But since we've already started, we want results that are worth the effort. Schnitzer, what are your tactical predictions if we succeed in intervening in the command and communication network before the main force of "Blue" launches a concentrated attack on "Red's" higher-ranking command ship?"

"What about the timing?"

"Let's simulate the successful intervention when the effects of intervening in "Red's" command and communication network become apparent and the operational plan changes in time for the concentrated attack."

Even if "Blue" is successful in intervening in "Red's" command and communication network, there will be a time lag before the effects are felt in battle. In order to use the result of intervening in the command and communication network as a means to gain an advantage in the next battle, the sooner the intervention is successful, the better.

"That's opportunistic."

"That's the usual. As long as the computer is making the optimal move, there won't be much difference in the winning rate between the Third Fleet and the Training Fleet. But, based on the current strength ratio of the fleets participating in the frontal battle, we know without even calculating that the larger number of "Red" fleets will win. We predict a scenario in which that will completely turn around and the hypothetical enemy will be happy to go along with it."

"Is that a big win that's more exciting than the "Blue" command expects?"

"No."

Coorie muttered slowly.

"I think what the hypothetical enemy cares about isn't winning or losing, but the situation rolling in an unprecedented and unexpected direction. Luca said he was just having fun, but maybe he's experimenting with how to control it and see how unexpected situations will emerge."

"So a simple big comeback victory doesn't please the hypothetical enemy."

Schnitzer's tone didn't change.

"So what should we do?"

"It's not like we have to please the hypothetical enemy as long as we can pique their interest. But, if we can take a turn that would never happen in a normal battle or training, it will increase the chances that they'll come out wagging their tail."

"You've got some bad ideas."

Hyakume turns the tables.

"What are you up to?"

"If we were to seriously consider having Blue take over Red's command and communication network, the timing wouldn't match up with the fleet battle. So we need to speed up the decision-making process, even if it means bypassing the proper procedures."

Coorie started tapping on the control panel at a faster pace.

"As long as the cadets' headquarters are in charge of taking over the command and communication network, the decision-making system is one that requires safety, so there will be delays no matter what. But since the current "Blue" is using the command and communication network as a dummy in the middle of a melee, each individual is allowed to act on their own initiative. In other words, if they start attacking the "Red" command and communication network on their own initiative from the rear,"

"Are they going to carry out a strategic-level operation on their own initiative?"

"If they continue to follow the normal procedures as they are, even a successful operation will not be completed in time, and even a headquarters full of cadets should be able to predict that. Since they've gone to the trouble of preparing everything together, I think the recruits who prepared them want to try it out, even if it doesn't work."

"Feelings don't change the battlefield," Schnitzer said. "But it's possible that the virtual enemy is controlling the battlefield through emotions."

"No good."

Soon after assembling the network directly connected to the HQ, Lynn realized its flaws.

"It's not a tactical operation carried out by the lower ranks, but a strategic operation like directly interfering with the command network, so if we wait for the HQ's decision, we won't be able to make it in time."

Even if the HQ made the best decision without any time lag, the hijacking of the Red command network would not be in time for the attack on the higher-level command ship. After attacking the higher-level command ship, if we were to land the expected blow and then hijack the command network, we could expect some success, but it would no longer contribute much to the battlefield.

"If we wait for the decision from HQ, or rather, if we get HQ involved in this operation, no matter how fast we try, we won't be able to make it in time, and even if it starts going well, it will stop as soon as we pass it on to HQ."

Hacking and cracking are a battle until you get into a system that is assembled and in operation. If you try to imitate pirates searching for treasure after capturing a prey ship, you will waste a lot of time.

"That means that if we do it the right way, we won't be able to make it in time to support the fleet battle. So, can we do it by unorthodox means?"

Whether it's a training exercise or a real battle, the battle is monitored and recorded. Of course there are ways to avoid this, but if you don't choose methods that follow the orthodox rules as much as possible, it will cause a lot of trouble.

"If the referee can see the cheating, the virtual enemy should be able to see it too. That means we need to come up with a cheating strategy that won't be discovered until the end of the exercise, um."

Lynn displayed a large 3D image of the ongoing fleet battle in front of her. In the ship-to-ship battle, enemy and friendly forces are fighting, and although the damage assessments for both sides are gradually increasing, no ships have yet been destroyed to the point of being unable to fight.

"Even if the battleships can fire large-caliber beam cannons, if they are fighting each other with heavy armor for so long, their numbers won't decrease much."

The red and blue glowing spots are mixed together just enough, and there are many clumps that look almost purple. And because the battle airspace is so wide, even if each ship is moving at high speed, the whole does not appear to be moving.

"And then, what about outside of that?"

The battle airspace that spreads out in the interplanetary space of the Gaia star system is the center, with the attacking "Red" side placing their reserve fleet and supply forces on the outer planet orbit side, and the defending "Blue" side placing their reserve fleet and supply forces on the inner planet side. On the outer planet side, the thin patrol net and fleet of "Blue" can be seen, which is a guerrilla fleet that has succeeded in capturing an aircraft carrier by attacking the "Red" supply fleet.

"They're in a good position. It would be very profitable to attack the fleet battle from there, but I don't think they have the strength to do that. So, they're going to use the captured "Red" regular aircraft carrier as a springboard to intervene in the command and communication network."

Since FTL communication passes through hyperspace, the positional relationship in normal space does not have much of an effect. Lynn confirmed the current location of the patrol boat carrying Marika and Chiaki, who are supposed to be part of the patrol network.

"It's not like I'm bored. After all, they were the ones who proposed the bold plan to interfere with the command network. Wait a sec."

The operational procedure came together in Lynn’s mind.

"Currently, our front line is ignoring the command network and is allowed to act independently due to the chaotic nature of the battle. That means that the front line, which is not connected to the command network, could take control of the enemy network and succeed, right?"

A clear bell ringing sounded in the Silent Hammer's cockpit.

"What's next?"

"Um..."

When they alerted the combat information network for attack information on the "Red" command network to gather the latest information, the ringing never stopped. Three people were sorting through the information that had arrived, but new information was coming in at such a rate that it was interfering with their original job of maintaining the patrol network. While giving instructions for the electronic attack on the unmanned probe, Marika displayed the title of the file that had arrived in a secure package on the display.

"Command Communication Network Attack Kit?"

Marika read the title out loud and took a second look at the highly encrypted file title.

"An assortment of encryption codes and keys? What's this?"

"I'll take a look over here."

Kiara picked up a file with the same title from the combat information network.

"Did you pick up a bomb?"

"There's no virus or stealth program that would be caught by a quick check. It doesn't seem to have a time fuse, so it doesn't seem to be a bomb."

Kiara scanned the file twice.

"Generally, if you're going to send a bomb, you'd better send it to a larger battleship or a command center, not a patrol boat like this one."

A message file that has a virus or a timer-activated program embedded in it is called a booby trap, or more simply, a bomb.

"What's inside?"

"If I believe the explanation..."

Kiara skimmed over the instructions in the file she opened the first time she checked.

"The complete set of encryption codes currently used in the Red command communication network, and the corresponding time-limited passkeys. In other words, the complete set of passwords to access the Red command communication network."

"What!?"

Marika and Chiaki spoke up at the same time.

"Why? Why would something so convenient be spread around the network!?"

"Someone somewhere managed to analyze it, but there wasn't a FTL line nearby to access the command communication network, or more simply, it could be a prank by someone, a trap set by the instructor, or sabotage by Red after learning our operational plan."

Kiara continued to check the file contents.

"The most suspicious thing about this file is that there's no sender's name."

"What!?"

Marika and Chiaki spoke up again, and checked the file sent over the combat information network. The sender's name was not blank.

"Emanon Erewhon, attached to headquarters?"

"It means a nameless person who doesn't exist anywhere. Try searching, there should be no records of a cadet with that name at school, but if you search for it, the sender's name should come up in full."

"That's true."

Chiaki muttered as she tried to check the sender.

"I can trace the sender's location and relay route, but there's no record of the sender himself."

"That's a name often used when communicating without identifying the sender. I think the sender's location and relay route are fake."

"Why?"

Marika carefully displayed the list of files.

"Even if you find or restore this kind of exclusive confidential information, it's not guaranteed that you'll get any special evaluation. There's no need for a candidate who's only interested in getting a good grade to distribute it while hiding their name..."

As she was talking, Marika realized what she should have imagined.

"...Isn't this information that the candidate found out?"

"Or maybe the candidate doesn't want it to be known that it was him."

Kiara continued checking the files.

"If it's information that comes from intelligence analysis or wiretapping, you can brazenly spread it around and show off your achievements to the instructor, but if it's information that you get by breaking the rules, that's not the case."

Kiara calmly stated the situation she expected.

"And of course there's a chance that it wasn't information that the candidate leaked."

"False information leaked by the instructor?"

Kiara nodded ambiguously at Chiaki.

"Or maybe it's false information leaked by the enemy on the combat information network."

Combat information networks are widely open, so security is weaker than heavily protected command and communication networks. The amount of information leaking is huge, but it's also easy to intercept and highly likely to be decoded.

"So it's fake information?"

"That's well done."

After completing the minimum check, Kiara sighed.

"The format of the command and communication network is the same for both enemies and allies, so it's easy to create fake encryption codes and patterns, but there's no gap in that."

"Is it fake?"

Faithful to the basics, Chiaki was suspicious. Kiara shrugged.

"I wonder? But if it's fake information leaked by the enemy, it doesn't mean much to Red."

Kiara displayed a 3D view of the operation's progress schedule.

"Right now, we haven't found a surefire key to open the command and communication network, so the schedule is gradually falling behind. If Red knows our operational plan, they're probably watching our progress, so they should be able to calculate that if we leave them alone, they won't make it in time and will fall apart in mid-air. But if we can figure out that we can use this at this stage, we'll be right on time."

"Aren't they going to let them get a fake key and cause the operation to fail?"

"Then we can redirect the considerable military power that's currently being used for this operation to other tasks. It might be wasted, but..." If there are surplus forces preparing for a mission that doesn't exist, it would be easier to control them if they continued to prepare."

"So it's real?"

"It's just that I can't think of any reason or need for the enemy to set up a fake key as a trap. Generally, if it's a "red" trap, the sender would be the name of a real cadet."

"Then why did it come to our house?"

"Because they're trying to monitor all the strategy information flowing through the network."

Marika struggles with the ringtones that ring one after another, sorting through the information.

The information released on the battle information network ranges from the stock situation in the store to the strategic direction of the headquarters. During the graduation exercise, where large fleets clash, the amount of information flowing is enormous.

Information is tagged as necessary, making it possible to make simple classifications. However, much of the information is deliberately not tagged and is released in an unimportant form. If you want to check all the information, you have no choice but to specify a few specific keywords and search across the board.

"No tag?"

"No tag."

Kiara answered Marika's question.

"So, I think the only ones who have checked the contents of this file are probably dozens or hundreds of people in the rear who haven't engaged in a frontal battle."

"Can it be used?"

Kiara looked up from the display at Marika's next question.

"Are you planning to use it?"

"If you're going to use it, it's better to do it sooner rather than later."

Marika glanced at the latest battle situation in the corner of the 3D display.

"Command Center hasn't stopped the operation. But if they're going to launch a concentrated attack on a higher-ranking command ship in the middle of a melee, they'll have to get their hands on the command communication network soon, otherwise they won't be able to do much after the battle is over."

"If everything goes well,"

Kiara stopped her hand running over the control panel.

"What will you do if you take over the Red's command system? If you're fighting against a command and communication network, even if you declare a lock like the enemy ship's central computer, the training won't stop."

"Instead of the current arbitrary melee, give orders according to the command system."

Marika looked at the battle situation display, which showed the melee of friend and foe.

"I think it would be simple to give an order to retreat to reorganize the command system, timed to coincide with the concentrated attack on the higher-ranking command ship. What do you think?"

"Wouldn't that just mean they can run away?"

Chiaki frowned and looked at Kiara. Kiara looked at the battle situation display with an even more difficult look on her face than Marika.

"The enemy has more numbers."

Kiara said. "In this situation, if Red doesn't launch an aggressive counterattack against Blue's concentrated attack and instead prioritizes retreat, it will be a big advantage for Red, who will concentrate their forces on a limited target. In addition, if they take over the command and communication network and order a retreat to reorganize their forces, it won't be an obvious act of aiding the enemy, so the fleet under their command won't suspect them."

"If the enemy starts retreating at the same time that we start our attack, support for the front line under concentrated attack will be delayed, so I think that will give Blue an advantage."

"What if we fail?"

Marika turned her gaze to Kiara, who asked.

"At what stage?"

Kiara answered without even looking at Marika.

"If you've already considered what to do if you fail at what stage of a strategy that hasn't even started yet, let me know."

"Hmm."

Marika turned back to the 3D display at her seat.

"If we just failed to intervene in the Red command network, we'd know that this passkey is useless and can be ignored. If we failed to send orders after entering the command network, it wouldn't have much of an impact on the progress of the exercise. And even if all our optimistic expectations were to be overturned and we suffered an unexpected defeat, it probably wouldn't be a negative evaluation, just the score for capturing an aircraft carrier in the first battle would be wiped out."

"You're really optimistic, thinking about not only the results of the battle but also the grades."

Kiara gave a bitter smile. Marika laughed too.

"I guess I'm optimistic, but I do think I'm thinking about it."

"Against?"

"Wait a second, let's think about which is more advantageous."

Kiara looked up from the display and crossed her arms in a thoughtful pose.

"If we succeed, we'll be happy because we'll get another special score, but the problem is what happens if we fail. But even if we fail, in the worst case scenario, the intervention in Red's command and communication network will end in failure, and it's hard to imagine a situation where the three of us here will be held fully responsible and everything will be a mess. In other words, it's more profitable to take this gamble."

"A gamble, huh?"

Marika looked at the battle display again.

"Well, this exercise itself is like a game where you pit the best moves against each other, calculated based on the probabilities in every situation."

"So, are we going to do it?"

Chiaki looked around at the other two in the cockpit. Marika raised her hand.

"I agree."

"I don't disagree."

Kiara raised her hand as well.

"Well, let's get started. Where should we start?"

"First, we'll join the Red command and communication network intervention platform prepared on the Myradodo."

Kiara started to move her hands.

"Check the procedure, and once we've confirmed that there are no omissions or mistakes in any of the procedures, we'll begin intervention."

"What about a check from HQ?"

"I won't wait."

Marika answered immediately.

"If HQ had the correct passkey, that would be a different story, but no one has it except the referee, so they can't check if this passkey is real or not. Then we'll have to decide whether to try it or not, and who will take responsibility if we do try, and we'll never get permission. So this time, the front line will make the sole decision to try. Is that right?"

"Are we going to force our way through?"

Marika shook her head when Chiaki asked.

"If HQ tells us to stop, we'll stop. But we've prepared all the procedures and methods, so I don't think we have the guts, or the information to tell HQ to do it or not at this stage."

"What about the HQ computer's assessment of the battle situation?"

"Even so, I don't think it's possible for it to make a decision that's that different from our computer's."

Marika answered Kiara.

"It would be different if HQ had information or a situation we didn't know about, but if our computers give us a 23% chance of success, and we calculate the results if it works and the losses if it doesn't, I think it's definitely worth trying. HQ would think the same if they had the same materials as us. Besides, even if it was a proposal from below, they haven't stopped the operation plan from interfering with the command communication network up to this point, so if they stop it now that it's time to carry it out, there must be a good reason."

"That's just optimistic opportunism, but well, if you're working in the rear where you don't have to worry about being attacked for the time being, it's fine."

FTL communication is communication that takes place through hyperspace without any time lag. In reality, it takes the same time as normal communication for mechanical processing, signal conversion, and decoding that are done in normal space, but this is so small that it can be ignored.

FTL communication requires energy to form and maintain hyperspace, even if it is small, just like a FTL engine. It also requires the location information of the communication partner.

For that reason, there are temporary lines that are built whenever necessary, and fixed lines that are always connected.

A variety of communication companies, from major to minor, such as GT&T, have built FTL networks across the galaxy and made them available as communication infrastructure. These FTL networks are fixed and maintained at all times, and are never shut down even if no information is being transmitted.

In contrast, FTL communications that are opened by individuals or ships as needed are closed and released as soon as the communication ends, and are therefore classified as temporary lines.

The Imperial Fleet's command and communications network is built within a galaxy-wide military FTL line, which is said to be inferior in scale to GT&T, the largest private communications company in the galaxy, but far superior in strength and stability. Of the military lines, the command and communications network is developed, maintained, and operated with particular emphasis on stability and secrecy, and although it uses the same military FTL line, it is much heavier and stronger than the combat information network.

FTL lines can be built simultaneously in multiple lines depending on the performance of the communication device installed. However, it is customary for aircraft in operation, whether large or small, to build communication lines as compactly as possible.

Headquarters uses its abundant communication power to build numerous FTL links for its large and small ships. Ships connected to Headquarters by FTL links set up FTL links as necessary, depending on the maximum distance between the onboard vessels and aircraft they dispatch.

Patrol boats are equipped with abundant communication resources, as they must simultaneously process information from unmanned probes deployed over a wide area while patrolling the range of their radar and sensors. The FTL network that controls the patrol network created by the unmanned probes under their command is large in scale, but the combat information network that transmits the results of that processing to the mother ship only participates as a terminal, so the burden is small.

"I'll set up a stand for the Red's command communication network with Myradodo, so I need to request that we join the command communication network."

Kiara skillfully proceeds with preparations to join the Red's command communication network.

"Well, we can't join the Red's command and communications network from the Blue's combat information network."

Chiaki is helping to build a new FTL line.

"Since both the enemy and ally are the same Imperial fleet, it's easy to just use the usual protocol for joining the command and communications network, but if it's another star system's military or pirates, we'll have to adjust it from there."

"It's not easy just because it's the same Imperial fleet."

Kiara is fine-tuning the Patrol Boat 680's FTL line to join the Red's command and communications network in line with the latest information sent from Myradodo.

"Even if they are the same Numbers Fleet and use the same command and communication network, the chain of command is different depending on who they belong to, so for example, if the training fleet belonging to the Third Fleet tries to join another fleet of the same Third Fleet working in a different place, they can't join the same command system until the command and communication network is reorganized like the chain of command."

"That's annoying."

"But, it's nice to know not only the manufacturer but even the version of the standard. Yes, construction is complete."

Kiara returned the completed protocol to the combat information network for checking. A report of check completion came back from Myradodo and, later, from Gaiapolis HQ.

"The check has been completed from HQ," Kiara reported.

"No problem."

"Well, if HQ sent back the check completion, does that mean this operation is okay?"

"The reaction was too fast for them to have considered it, so I guess they just ran an automatic check on the computer over there and confirmed that there were no problems."

Kiara compared the check results from the aircraft carrier and HQ. Neither found any fatal mistakes in participating in the command communication network.

"We'll join by disguising our current position and ship name to the transport ship of the supply fleet in the rear."

The Myradodo, which was captured by "Blue," has been deleted from "Red's" command communication network. As it is, it cannot participate in "Red's" command communication network. Therefore, one of the ships of "Red's" supply fleet, which was captured by the patrol network deployed behind the front line, was set as an alternative target and became the target of electronic attacks.

The electronic attacks this time were focused on taking over normal communication and FTL lines. The target was a standby equipment transport ship far from the front line, and the stealth attack, which focused on communication lines rather than a direct attack, has been judged successful so far.

The command communication network will be joined by the newly constructed FTL line on the Myradodo under the name of the equipment transport ship that has already succeeded in hijacking the communication line. As soon as the operation begins, the equipment transport ship's FTL line will be disconnected, and at the same time, the FTL line on the Myradodo will be reconnected.

"So that means..."

"With this, preparations for the operation are all complete."

Marika had already checked the standby status of all the relevant departments and displayed them in 3D around her.

"Since the front line is in a state where they can act independently, we can start the operation even without the go-ahead from headquarters."

"Who can give the go-ahead?"

"Well?"

Kiara raised both hands in response to Chiaki's question.

"This is something that can't be done unless everyone starts running at the same time, so when the report comes from all the participating locations that they're ready to start, who will start the operation?"

"Even if we cut off the command and communication network and can act on our own, if it's a melee, we'll have to maintain the command system for the whole ship, and if it's a carrier, we'll have to maintain the command system for the aircraft."

Marika checked all the situations that she could see. She rearranged all the locations in the order that they were needed for the operation procedure.

"If we wait for one to start, we'll never be able to start the operation and we'll miss the timing."

"Don't worry, we can go."

"Okay, let's do it!"

Marika slammed the control panel. The patrol boat in the rear, which had already taken over the communication line, simultaneously switched the communication line of the Red equipment transport ship to normal communication and FTL communication, and the Myradodo began participating in the command communication network using the same connection data.

"Hey!"

Kiara called out.

"What did you just do!?"

"I specified the timing for everything and gave the start command."

Marika didn't take her eyes off the operations that were progressing simultaneously in each department.

"Next, it's our turn."

"Don't worry, the automatic launcher is running."

Not just electronic warfare, but battles in space progress at FTL speeds. Since it can't be done with the reflexes of a living body, it is customary to set predetermined operational procedures to be activated automatically as the situation progresses.

"Here it comes!"

The Myradodo successfully participated in the Red command communication network as the equipment transport ship Tamiya MM35. The Red's battle command information should have been pouring into the Myradodo, but that was not the mission of Patrol Boat No. 680.

"Did they go?"

The mission should have ended while they were talking. Kiara slid her finger over the control panel to check the progress.

"Probably."

"Did they receive the order to retreat?"

"It should have."

Kiara replayed the log to check.

"Right after successfully joining the command communication network, the Red HQ issued an order to all main ships in the melee to temporarily retreat and reorganize the fleet."

"The battle situation is..."

Marika looked at the battle situation display, which was a jumble of red and blue shining points.

"Well, it will probably be a while before we see any visible results. By the way."

Marika took her eyes off the display and looked around at the faces of her fellow passengers.

"No one said it was okay, we could go, right?"

"We got it!"

Coorie called out.

"A ghost has been sent to help the combat information network of Patrol Boat No. 680!"

"We've got it here too!"

Hyakume responded immediately.

"I thought it was something like that, but it's an autonomous bot that erases its footprints one after another as it moves! We can't track it unless we log not only the data but also the changes over time!"

"Are you tracking it?"

"Probably."

Schnitzer answered quietly.

"Currently, we are copying as much of the communication data as we can before the noise was erased."

Regular and FTL communication, communication data includes not only the main text data, voice data, and image data, but also a huge amount of data such as conversion records such as encryption and decryption, and changes in strength due to external factors. When completing a communication and recording it, if you do not reduce the raw data to the bare minimum, such as the communication content, the sender/receiver, and the time, the record will expand infinitely.

Even if we were to use the most powerful computers in the galaxy, it would be unrealistic to record and analyze the huge amount of traffic on the command and communication network and the combat information network, including the noise. Therefore, Bentenmaru set up a system that would allow it to retrieve raw data after compression as far back as possible if an abnormality was found, while only covering specific channels.

Hyakume was tracking the noise that had appeared on the combat information network of Patrol Boat No. 680. This time, they had succeeded in recording the pattern, so they could track the helpful ghost by selecting only similar noises that appeared on the network.

"It's a troublesome type that splits while repeating small mutations."

Hyakume read out only the necessary information from the display that was displaying the tracking information at high speed.

"If it deviates from the mutation range we set here, it will be lost!"

"It's being reset."

Coorie replied.

"It probably won't be able to make it in time for this helpful ghost, but it will be in time for the next one!"

Events in the FTL network are completed almost instantly. Even across thousands of light years, messages and files are exchanged instantly, and programs and viruses are activated and produce results instantly.

"The record has been recorded."

Schnitzer checked the control panel through the nerve cord connected directly to his fingertips.

"Unless it's a troublesome familiar that rewrites the entire recording medium or mutates within the medium, we can analyze it at our leisure later."

"Just to be on the safe side, lock up and freeze all the records."

Coorie ordered from deep inside the electron nest.

"We're working with wildcards too, so there's no guarantee they don't have the same one."

"I froze it in a monitored safe."

Schnitzer said.

"Any changes made from inside or outside will leave a record."

"It would be nice if the ghosts stayed still like this."

"We can't do that."

Hyakume cried out in a pathetic voice.

"The target's mutation pattern exceeded our scanning limits. We lost sight of it."

"It's fine as long as the records remain. Did it disappear up or down?"

"It wasn't a higher-level command and communication network. It was a lateral movement within the combat information network."

Hyakume checked the tracking records.

"It got lost in our net. I don't know if it noticed the pursuit and disappeared on its own, or if its mutation pattern was too difficult to follow and it fell off."

"So it was a stealth virus after all."

Coorie muttered, glancing sideways at the provisional analysis results.

"And what kind of virus is it that doesn't disappear after completing its mission, but runs away and lurks again? It's stealthy and a sleeper, and what's more, it's surviving comfortably in the network of the Imperial fleet, which is supposed to be the latest and greatest in terms of security."

"We can take our time analyzing it later. We weren't able to capture the main body this time, but we were able to record its footprints."

"It's not over yet."

Coorie snapped.

"If it's a stealth sleeper type virus that activates as needed, then it's not just the one we have now, it can be hiding in command communication networks, combat information networks, or even regular communication lines. In other words, virtual enemies are everywhere."

"But it won't come out unless it's necessary."

Hyakume answered leisurely.

"Okay, let's set up a scan filter with a larger mutation range based on the data we just got. But wouldn't it be quicker to look for the cause of the activation?"

"The cause of the activation?"

"The ghosts that are sleeping peacefully in hiding so they can't be found are being woken up by someone and how to carry out orders."

"Are you judging it yourself?"

Coorie muttered.

"No way. If it were just to make decisions and act autonomously at key points in such a large-scale battle, that would be one thing, but if you want to control the battle at a strategic level, you have to see everything from the front line to the headquarters. There's no way that an autonomous stealth program can effectively move in a scrum with its counterparts in other places."

"I agree."

Schnitzer said.

"If you want to aim for the most effective place and timing, you need to keep it running at all times to monitor, analyze, and evaluate the situation. But to do that, you need to monitor all of the battle information networks and all of the command and communication networks at the same time."

"It's not like we're the headquarters."

Hyakume mocked.

"After all, even the headquarters, which is supposed to be watching everything they can see, can't give accurate instructions and move the battle situation the way they want. If they could do that, the Imperial Fleet would be happy to pay for it."

"The headquarters doesn't see and evaluate all of the battle situation with their own eyes either."

Schnitzer calmly pointed out.

"We run several large machines dedicated to analyzing the battle situation, collecting, analyzing, and evaluating all battle situations from the front line to the rear."

"Well, I suppose that's true. If they didn't go that far, they wouldn't be able to predict tactics, let alone strategies."

"Yes, if we use the FTL network, we can instantly collect all information, prepare as many frames as we want, and analyze as much as we want."

Coorie muttered in a husky voice.

"...If we can use the FTL network as much as we want, there's no need to sleep."

Hyakume and Schnitzer exchanged glances. He tried to anticipate Coorie's thoughts.

"So..."

"Not even a stealth sleeper?"

"With a FTL network, even if the main body is tens of thousands of light years away, it can instantly rush to wherever it's needed. There's no need to sleep, and there's no need to incorporate complicated autonomous functions."

"Really? So that pattern mutation and the subsequent escape were all just a diversion?"

"That's easier. It's much easier to scan the entire FTL network for similar patterns and use decoys just to drag them around uselessly, than to scatter a ton of ghosts who we don't know when or where they'll be needed."

"That makes sense."

Schnitzer's voice is low.

"If we have the resources to constantly monitor not only the command and communication network but also the battle information network, and we have enough computers to evaluate and analyze the battle situation, then there's no need to let the virus lie dormant at every possible intersection."

"Not only that. We need either a mainframe that's faster than HQ, or a battle prediction program that's better than HQ, or if possible, both."

"I see."

Hyakume started to move his hands.

"So it seems like it would only be possible to pull off such a scheme if they had the facilities and mainframes of the Fleet Command. In that case, the most suspicious one would be the company working with the Imperial Fleet to develop a battle prediction program. The latest version of the prediction program is Combat Fortuna 3's Mark 24, developed by Arsinoa Technology Development."

"Arsinoa, huh?"

Schnitzer muttered.

"That's not a name I've heard often."

"But they're working with the Fleet Command to develop a battle prediction program, which is extremely important. The Fleet only mentions the name as the Joint Staff Headquarters, but the Strategic Research Institute, Intelligence Department, and Technology Department must also be involved, as they use accurate data on the strength of both allies and enemies to plan battles."

Hyakume' hand stopped.

"Oh? The parent company doesn't show up? If they're taking on such a big job, I thought they'd at least be under the umbrella of one of the Big Three or part of a corporate alliance."

"No matter how big or complex a company is, they wouldn't let just one company monopolize a program that could affect the outcome of the war. I don't know what the actual situation is, but I'm sure that major and mid-sized defense electronics companies are participating in the supporting organizations below, not the top ones."

"Oh, that's right. This is..."

Hyakume's voice lowered as he scrolled through the list.

"The name comes up easily, but beyond that, there's no good information. From what I can see, they're doing the appearance of a private company that works with the fleet, but this is..."

"It's pitch black."

Schnitzer, who searched for data from another route, succinctly summarized it.

"There are plenty of private companies that are required to maintain the same level of secrecy when working with the military. They may have the appearance of a private company, but they're essentially an organization within the fleet."

"If they're the developer of the tactical prediction program, it's not surprising that they have a computer that can centrally collect, analyze, and evaluate data even in such a large-scale battle, predict all situations, and control it, and they also have the authority to move freely around the command communication network and combat information network. So what are you going to do, Coorie? We don't even know the connection channel at the moment, but do you want to find out if this Arsinoa technology development is the real identity of the hypothetical enemy or the main enemy?"

"I haven't been asked to do that much."

From the bottom of the electron nest, Coorie answered.

"It's just that the circumstantial evidence has led us to believe that this is a place where we can pull off our evil schemes. Besides, we're contracted by the fleet, so monitoring all battles is part of our job, and if it's an exercise target, we can use the excuse that controlling the direction of the target is part of our development work."

"But what if he didn't get permission from headquarters?"

"As long as it's not a clear act of rebellion, we can make any excuse we want. If we're intimate with headquarters, we can get permission later, and if it's a target that can't be seen without a careful net, we can just say it's an experiment without prior notice and that's the end of it."

"The request is to find out the identity of the hypothetical enemy within the fleet."

Schnitzer said.

"With all the circumstantial evidence, the rest is the intelligence department's job."

"That's right."

Coorie's voice was low.

"But if this hypothetical enemy is careful and smart enough, it may notice us searching through our net. If that happens, the hypothetical enemy may consider us an enemy."

The bridge was silent.

Hyakume and Schnitzer had taken all possible measures with the current equipment and specifications. They had achieved the conditions to be able to avoid being found or captured even if they were found inside the network and investigated.

However, unexpected situations can arise in electronic warfare. There have been many cases where a system or situation that a veteran had cross-checked and deemed perfect was instantly overturned.

"Don't worry,"

Hyakume spoke up.

"It's nothing new that someone high up somewhere is messing around with pirates in the Empire who have privateer licenses. In that sense, we've probably been identified as enemies even before this story began."

"I won't deny the possibility, but there's nothing else we can do at this point."

Schnitzer said.

"The only thing we can do next is to search the command and communication network and combat information network for noise that seems to be from the development of Arsinoa technology, but at this point we don't know the location or characteristics of Arsinoa. And if we start investigating it, it could be clearly determined that we have recognized the presence of an enemy."

"I've done my job for the reward."

Coorie started tapping on the control panel again.

"Besides, the training is still ongoing. We'll analyze the records slowly after we've finished. If the cadets can turn things around, is this their last chance?"

"No one said it was okay, they could go, right?"

Marika looked at Chiaki and Kiara in the cockpit. Chiaki turned to Kiara.

"No one said that. And you?"

"No one said that. I heard you."

Kiara nodded, tapping on the control panel.

"But there's no record of any external communications or internal conversations. Even if we investigate this thoroughly, I doubt we'll find anything."

"I think they're the kind of helpful ghosts who give advice to cadets at crucial moments in training and practical tests."

Marika tried to show the most recent conversation record, which was automatically converted into text data, on the display.

"It's not recorded. What should we do? Should we report it to the instructor?"

"If it's not recorded, won't it be treated as a false memory or a collective delusion and that's the end of it? Even if I submit a report, I'll just be called in to have a fact-check and have to go through an interview, which will be a pain."

"I agree."

Chiaki raised her hand. Marika erased the conversation record on the display.

"Well, I hope this conversation will be dismissed as just casual chat that won't interfere with the mission, and I wonder how it went in the main battle after we spread false information?"

Marika updated the information on the battle situation display to the latest.

"The Myradodo hasn't been kicked out of the command communication network yet."

Kiara told him the latest information she could confirm.

"Well, the timing isn't as perfect as in the scenario, but the Blues have started a concentrated attack on the enemy's main force. If we combine that with the information from the enemy command network, I think the operation is succeeding as planned."

"Oh, good, it seems to be working."

Marika muttered.

"The number of battles after close contact is starting to decrease slightly. Have the Reds' main force started to retreat?"

"I wonder?"

Chiaki was watching the situation while visualizing the chain of command in the command network, which he had finally memorized.

"The orders to the Reds' main force to retreat and reorganize during the melee were, as expected, nullified by the Reds' headquarters. Even if they managed to send a fake order through the command network once, it got caught in the headquarters' check network."

"Well, that's what happens."

Marika looked at the same data as Chiaki and expanded in more detail on how the fake order was rejected.

"If they try something similar again, we'll have to get their hands on the command center so they can get past all the checks in the command network."

"You think there'll be a next time?"

Kiara spoke up, and Marika gave an ambiguous smile.

"Well, maybe not during this exercise, but who knows what might happen in the future."

"Yeah, that's true."

Lynn was following the flow of fake orders that had been sent through Red's command network.

The Myradodo successfully interfered with Red's command network by stealing and replacing the communication line of the real transport Tamiya MM35. Tamiya MM35 has not yet realized that its line has been hijacked.

At this point, it is still possible to interfere with Red's command network and gather information, and information gathering is actually taking place.

The temporary retreat order issued by Blue to the main fleet during the battle was found to be inconsistent with previous HQ orders immediately after it was issued, and corrections and deletions were made.

"At this rate, it looks like they're not doing anything more than automatic tracking."

Just like our HQ, Red's HQ must be under a heavy load from commanding the battle.

"It went well, the holes haven't been plugged, and the order wasn't considered an external offensive intervention. Hmm, that's too convenient."

Lynn checked the situation again.

"One possible scenario is that Red's HQ is considering reorganizing their forces to resolve the situation, and it's possible that this order was issued as part of that."

Skimming through the situation analysis from the allied HQ, Lynn flicked the display.

"There's a possibility that our allies were preparing to issue similar orders and some of them were issued earlier, so they didn't consider the possibility of false orders from the enemy. Well, normally, you wouldn't think of directly interfering with the command network, so I guess I'll suspect an internal error first."

Thinking deeply, Lynn opened the freely accessible "Blue" command network.

The commands flowing through the command network range from those for the entire army to those for individual ships and even individuals. There are many of them, and many are changed depending on the progress of the battle situation. Looking at the orders issued, many were canceled in a short time, and it was common for them to be revised.

"So you still have the capacity to issue false orders and confuse the enemy?"

If you can continue to interfere with the enemy's command network until the end of the exercise, you might get a high evaluation.

"But, well, maintaining the lines is not our specialty, so I'll leave it to you, but what order would have a greater impact on the current battle situation than the withdrawal of the main fleet?"

In the ongoing melee of the fleet battle, the concentrated attack of the Blue fleet, targeting the Red fleet's higher command ship, is becoming successful. The order to temporarily withdraw the Red fleet's main fleet in order to reorganize the battle line was cancelled as an error after just a dozen seconds. However, in space battles where events progress at the speed of light, a dozen seconds is an eternity.

The battleship's computer, which had been predicting battles on the front lines with the aim of increasing the number of battle opportunities, followed the command of the command communication network and switched to making withdrawal the top priority of action. The Red fleet, which had superior numbers and strength, had set maximizing battle opportunities as its path to victory, but this was cut short when retreating and reorganizing became the top priority.

The main fleet of "Red" battleships and cruisers, which had been on a trajectory to maximize combat opportunities according to the computer's tactical predictions, responded immediately to the order to temporarily retreat transmitted via the FTL line. The trajectory that maximized combat opportunities with "Blue" battleships spread throughout the entire battle airspace was quickly changed to a trajectory to retreat to the rear of the fleet, toward the outer planet.

Fortunately for "Blue", the timing of the false retreat order issued by interference with "Red"'s command communication network and the concentrated attack on the higher-ranking command ship was timed to coincide with the timing. "Blue" battleships continued to maneuver with an emphasis on concentrated attacks on "Red"'s higher-ranking command ships rather than maximizing combat opportunities, and they moved on a trajectory to carry out concentrated attacks even if it meant more damage due to the increased number of combat opportunities.

In order to concentrate attacks on "Red"'s higher-ranking command ships, some of the "Blue" ships chose a trajectory that would avoid combat if it meant more damage, even if it was possible to continue fighting. "Red"'s maximization of combat opportunities was thought to be effective in pursuing them, but the change in priority due to the retreat order resulted in a missed combat opportunity.

It took only a dozen seconds for the Red command and communication network to issue the retreat order to the capital ships in the battle airspace before it retracted it. However, that was enough time to destroy Red's predictions of the future, based on the closely observed battle situation and its progress.

Once a Red battleship retreats, it does not have enough time to return to the battlefield with a revised retreat order. Taking advantage of this gap, Blue concentrated its forces on Red's higher-ranking command ship, and succeeded in attacking just as the target and escort forces began to retreat, achieving results that outweighed the losses that had been caused by the difference in strength.

A concentrated attack was made on the 12 higher-ranking command ships that had been the priority targets, resulting in two battleships being judged to have sunk, two heavy cruisers being judged to have been severely damaged and unable to continue fighting, which could be said to be essentially sunk, and three ships being judged to have been significantly reduced in strength due to moderate damage.

With the loss of two top command ships, and the two remaining top command ships in the command and communication network with no combat capability, Red was forced into a situation where it had to simultaneously recover the broken front line caused by an unplanned retreat and reorganize the command system of the large fleet fighting on the front lines.

Having successfully concentrated its attack on the enemy top command ships, Blue's forces shifted from individual ship-by-ship combat to collective operation. Until the concentrated attack, Blue had continued to operate its fleet while its forces were gradually being whittled down by the numerically superior Red, but it shifted to coordinated combat following instructions from headquarters via the combat information network.

The basis of fleet battles is to attack a small enemy force with a large number of ships, creating and continuing a numerically advantageous battle situation.

"Wow, even though we were losing, our army has made a comeback and predicted the future situation to be favorable. Our army is overwhelming."

Muttering the same lines, Lynn checked the structure of the Imperial fleet's command and communication network once again.

"So, at this point, we should aim for orders that will provide covering fire, not a gamble to turn the tables... then, can we take down the entire command and communication network?"

If we can take down the entire command and communication network of "Red" even once, we can confuse the enemy. With the issuance and cancellation of a retreat order, "Red"'s main force needs to reorganize, and for that, they need a coordinated command through a command and communication network, not a melee battle for each individual ship. "Blue" has achieved success by concentrating its attacks on "Red"'s higher-ranking command ships, and with its main force intact, it is transitioning from a melee to a coordinated fleet battle, and the situation is leaning significantly in "Blue"'s favor.

"For now, we're not relying on the command network and are communicating through the combat information network, so it won't be a problem if the command network goes down in this state. If possible, I'd like to disable only the 'Red' command network."

With a wildcard, which is almost the highest authority one can hope for, he can enter the upper channels of the command network. Lynn reconfirmed the structure of the command network while thinking about what he could do with his vague background knowledge and the projectiles he had at hand, and wanted to throw out his idea quickly.

"Well, it's said that it's the most robustly constructed in the galaxy, and even if an attacked heavy battleship is blown away along with its structure, the command network will remain intact."

Both the command network and the combat information network are constructed with the purpose of maintaining communication and continuing to send information no matter what the situation. The communication network, which has been polished and forged with ancient communication wisdom and technology to improve survival rates, is an autonomous, decentralized, and robust network with countless hubs.

"If you think about it, even the civilian GT&T, which isn't even designed for combat, hasn't had an accident that completely stopped everything in about a hundred years."

GT&T is a huge, galaxy-wide communications company that provides FTL communication lines not only within the Empire but also to the outskirts.

"Even if we raid the Joint Chiefs of Staff, they have plenty of spares, so there's no way to stop the command network in a normal way. Maybe if we could temporarily change the physical laws of hyperspace, we could do something about it."

In that case, not only the command network but all the FTL communication lines used by all civilizations in the galaxy would be cut off.

"The whole galaxy would stop."

After muttering, Lynn shook her head to shake off the temptation that was impossible.

"So, then, what are some constructive measures that can be taken at this point?"

She thought that if she had a wildcard with the same authority as the judge, she could do anything. However, when he got it and thought of concrete measures, he couldn't think of a good method.

"Oh well, I guess I'll just have to start with the quiet things I can do and work on them bit by bit. I'm not very good at that sort of thing."

While grumbling, Lynn checked the procedure for canceling the fake order on the Red command communication network.

Orders that are strategically or tactically inconsistent are canceled. Whether it's human or mechanical error, orders that are deemed to be mistakes can be issued at any level, from headquarters to the front lines. As part of the check function to operate limited forces as efficiently as possible, orders are checked before they are issued, and if they are deemed to be mistakes even after they are issued, they can be canceled.

"So that means that if you issue an order that is out of line with tactical expectations, even a top priority order handed down directly from headquarters can be canceled."

Higher command departments are also given the power to enforce and cancel, so even though it's called a check function, it doesn't work uniformly. Even so, there's no guarantee that it won't be canceled. However, if you're higher up, you can change orders at the strategic level, so you can issue the corresponding orders and completely change the course of the battle.

"If the orders don't contradict the strategic level, will they go through as is? Wouldn't it be quicker to just make a tool that can check whether fake orders contradict strategic directions?"

Lynn suddenly stopped what she was doing.

"If that's possible, then we can just rewrite all the strategic-level directions that contradict the fake orders to suit our convenience..."

Lynn groaned with a voiced dot.

"If we could do that, then no one would have any trouble. If we could rewrite even the strategic-level operational directions of the headquarters, then we could move the entire Numbers Fleet as we please."

After saying that, Lynn tilted her head.

"Really? If we can get past all the check mechanisms without any contradictions or errors, then we can operate the command network at a strategic level? We can't just stop the galaxy, we can move it however we want!"

Suddenly, Lynn looked at the display. A diagram of the structure of the checkers that are installed in the command network is displayed.

"We can move the galaxy however we want... is that the goal?"

Lynn started moving his hands with great momentum.

"All right, let's call the next command network intervention the Galactic Conquest Kit."

The method for making an electronic warfare attack kit is roughly set. A wide variety of programs have been created, tested, improved, and upgraded for both attack and defense.

Even though he is an apprentice observer, he has access to the archives as an electronic warfare specialist. There is no time to leisurely flip through past electronic warfare programs during an electronic warfare that proceeds at the speed of light, but if it is an attack on an already established network, he can slowly select the attack method from the archive.

"Wow, this is amazing, this is amazing."

Cheering, Lynn goes deeper and deeper into the electronic warfare archives.

"Is it okay to let an amateur like me mess around with the historical archives that the Imperial Fleet's electronic warfare research institute has built up over the years?"

To win, he will use any means necessary. History, tradition, anything that can be used as a weapon will be used. Even though he knows that this is the Imperial Fleet's policy, Lynn was almost overwhelmed by the abundant electronic warfare program archives that appeared before him.

"I thought Odette II's electronic warfare archive was pretty good, but compared to this, it's like the difference between a library and a store, or even a data center and a terminal. It's presumptuous to even compare them. Wow, it's amazing, there are not only tactical level but also strategic level electronic warfare programs."

There is a whole room just for electronic warfare programs that are thought to be for the political aggression of enemy nations, and even programs that I had only heard of through rumors and programs for uses I had never imagined are systematically organized.

"This is a nest of ingenuity and malice from all over the galaxy. I'm not joking, I really think we could conquer the galaxy."

Resisting the temptation to abandon the work in front of her and look around, Lynn searched for electronic warfare programs that could be used in the battle at hand. A list was displayed in an instant, overflowing from the display.

"Wait a minute, are there really this many programs just for analyzing the logical structure of network commands and rewriting them!?"

Lynn re-sorted the displayed list in order of newness.

"For large-scale networks, something that can move freely even in places with strict security...huh?"

Lynn’s eyes widened when he saw the names of the creators in the credits displayed along with the names of the programs. There were quite a few big names such as Manufacturer and Imperial Fleet Electronic Warfare Research Institute.

"Wow, it's amazing, there are so many ready-made tools to attack networks of the same scale as the Imperial Fleet's command and communication network, it really makes me feel like I could wage war against the entire galaxy."

Of course, just because you bring a program from the archive doesn't mean you can use it as is. You have to select and adjust the necessary programs, set the parameters according to the purpose of use, and prepare additional programs required according to the expected deployment.

"If we combine the Wildcard authority with this logic modification program, we can create an offensive weapon roughly according to our imagination."

Normally, a trained team would assemble an electronic weapon in a concentrated effort, but Lynn was configuring it like choosing a combination of ice cream and toppings.

"Is it okay? Letting a candidate who hasn't even finished training handle something like this, even if they're an electronic warfare professional, could destroy the galaxy even if they're not careful."

Lynn was humming as she continued her work, apologizing for not doing her normal monitoring duties.

"Well, when it comes to this, an overwhelming archive and a powerful computer are nothing but justice. There's no waiting time and work goes smoothly. What's more, this search system is so well made, it's really for real combat, as long as you know what you're going to do, the tools you need will appear right away. I'd love to work in an environment like this. Oh, so that means working in the Imperial Fleet. Coorie-san, you'd probably stay there your whole life."

As usual, he creates an attack tool, carefully running it through a checker to make sure there are no oversights or configuration errors.

Lynn herself has no intention of using this tool herself. Since it can't be used in the field while making corrections, it has to be finished so that even non-specialist soldiers on the front lines with little prior knowledge can use it.

However, the command and communication network that is the target of the attack has been analyzed, and the tools to attack it are available, so there's no need to go to the trouble of building a program from scratch.

"I feel like I've packed up my suitcase full of attack gear for the day. With all this equipment, even a clueless kid can easily attack the Imperial fleet's command and communication network."

After a thorough final check, Lynn completed the Galactic Conquest Kit. Following tradition, the sender's name was Emmanon Erewhon, and the source was disguised so that it could not be traced, and it was sent to the combat information network.

"I hope a good master picks it up and uses it."

After sending off the Galactic Conquest Kit, feeling like a craftsman who had made a powerful weapon, Lynn thought about what he should do next.

"Huh?"

Feeling like he had finished his work, Lynn tilted his head.

"Is this really all there is to do?"

He thought again about what he had to do, like cleaning up afterwards.

The graduation exercises were still ongoing, and he didn't know how the Galactic Conquest Kit he had just sent out would be used, or if it would be used at all. However, since she has no intention of taking responsibility for it herself, Lynn’s only job as a cadet remains.

"Huh? Is it really over?"

She thinks about it again. With her schedule even displayed on the multi-display screen, Lynn is convinced.

"It's done. That means the next thing we need to do is..."

Lynn looks around the electronic warfare command room, where her classmates are struggling in their respective booths.

"...clean up and run away?"

She examines from as many angles as possible to see if the answer she instinctively derived is correct.

Right. Not wrong. The instinct that told her to run away in countless battles up until now is still sending out the same alarm.

The last time she ignored this instinctive alarm by thinking it through logically, she was thrown out of the network she thought she controlled and ended up in the care of the Shinokuhama City Police. The weapon he was holding turned to sand and slipped through the gaps between his fingers, and the foundation he believed was solid crumbled. He never wanted to go through that again.

Okay, I understand, he decided to escape, and began cleaning up. The kit he had sent to the combat information network had not had an ID entered into it to begin with. It had passed through several dummy ports, so even if the source was confirmed, it should disappear into a cheap server outside the star system.

He had also taken several detours to enter the archive, using carefully encrypted dummy routes rather than the regular route. Just to be on the safe side, he had erased all footprints, and left several dummy routes in case any restoration was attempted.

"This and that, this and this, that and that, are they okay?"

Just to be on the safe side, he checked his actions to make sure he hadn't missed anything. If he had overlooked or left something somewhere, his footprints could be traced back from there. If he cleaned everything up, he could hide the fact that he had infiltrated.

"Okay, everything network-related is fine now."

After making sure that all traces of his infiltration of the electronic warfare archive had disappeared and even deleting the check log, Lynn turned off the multiple displays. Only the standard observer display for the electronic warfare monitor remained.

"Well, next is how I'm going to get out of here."

A cadet participating in an exercise can't just suddenly leave his post.

"If I disappear without giving a reason, I'll be considered a deserter in the face of the enemy. Well, in a case like this, it might be quicker to get an order from headquarters to transfer me."

Thinking of a way to peacefully disappear from my current place of employment, Lynn switched the display.

"Is Instructor Luca still there?"

"You've been called."

Lynn turned off all the displays on her desk and stood up.

"You've been reassigned. Thank you for your help."

After receiving a perfunctory greeting and wave from her classmate who was busy with the work in front of her, Lynn left the electronic warfare command room.

In the hallway, Luca was standing in an instructor's uniform. Lynn saluted the instructor.

"Cadet Lynn Lambretta."

"Follow me."

Lynn returned the perfunctory salute and walked ahead. There was no further conversation.

A small shuttle directly under the manufacturer's command took off from the storage deck of the electronic warfare ship Carl Marie Isaac. After bidding farewell to the ship's control, Luca at the controls switched to autopilot.

"Yes, you can talk."

"Whew."

Lynn let out a big sigh and realized that she had unconsciously become nervous.

"Thank you very much. I was saved."

"You asked me to take you because you were going to run away."

Luca checked the communication system of the small shuttle. The recorder also recorded randomly generated meaningless conversations.

"What happened?"

"Um..."

Lynn thought about how to explain to Luca before opening her mouth.

"I think I've finished all my work here. I've crossed some pretty dangerous bridges, so if I stay any longer, the culprit and all the evidence will remain, so I thought it would be better if I just disappeared like this."

"All your work is done?"

Luca looked at Lynn with a puzzled expression.

"What do you mean?"

"The job this time is to search for a hypothetical enemy that the intelligence department has requested, right? To that end, I have done everything I can as a candidate. Regardless of how things will turn out from now on, there is nothing I can do if I stay there."

"Whose decision was it?"

"Of course, it was my own decision."

Lynn pointed her index finger straight at her nose.

"You know, when you're doing dangerous work, you get this tingly feeling on your back that you need to run away soon, don't you? It's starting to feel like that, so you think it's time to run away."

"It's good that you know you're doing dangerous work, but are you sure?"

"I'm sure."

Lynn nodded confidently. Luca asked again.

"So you decided that if you didn't run away now, things would get dangerous?"

"That's right."

Lynn nodded again.

"The authority I received from Coorie was quite extensive, so I used it to my heart's content. Of course, I erased my tracks, so I don't think I'd be found out by a normal chase, but it's safer and more reliable to anticipate the unexpected when doing this kind of work."

"What kind of work have you been doing?"

"It's an attack kit that incorporates wildcards and rewrites the logical structure of the command hierarchy. If it works as expected..."

There was a pause for a breath before Lynn spoke her conclusion.

"The entire command and communication network will be shut down."

"Really?"

Luca looked at Lynn again, as expected.

"...If that's the case, there's a possibility that the Joint Chiefs of Staff will set up an investigative committee and conduct a thorough internal investigation. That would make you want to run away."

Luca nodded, looking convinced.

"Knowing when to quit is basic for a first-class criminal, but maybe you have that talent as well."

"A criminal?"

"Yes. If you know what you're doing, you shouldn't make the mistake of knowing when to run away."

Luca turned her eyes back to the course.

"If I hadn't heard from you, I was thinking about heading back to Bentenmaru soon."

Luca showed the general situation of the exercise on the sub-display.

"But if it's that bad, is it okay to leave our captain and Chiaki at the scene?"

"No worries."

Lynn nodded.

"They didn't cross any dangerous bridges this time. Depending on how things went, they might be questioned after the exercise, but if that were to happen, there would be plenty of ways to rescue them, right?"

"Ah."

Marika, who had opened the combat information network, let out a silly voice.

"A new command communication network strategy kit has arrived!"

"What!?"

Kiara responded immediately. She checked the contents of the new strategy kit that had arrived via the combat information network. The new strategy set had more than three times the amount of data as the previous one.

"Galaxy Conquest Kit for Command Communication Network Strategy? Why do people who make these things like that kind of name?"

"Can it be used?"

"I'm checking it now..."

Kiara quickly checked the contents of the newly arrived strategy set.

"You've got to be kidding me, you're saying it's not just the tactical prediction program, but also the strategic direction? If it's according to the manual, it adds a function to resolve the inconsistencies between the fake orders and the command and communication network in a way that's convenient for the attacking side."

"... You're kidding me."

Chiaki let out a shaky voice at the unrealistic function.

"Not only do you put fake orders into the already rigid command and communication network, but you also rewrite other commands to match them?"

"That's how I said I made it. If it was just fake orders, there would be discrepancies at each level, so the checking mechanism would catch the errors and correct them, but this time, it will rewrite even the higher-level orders according to the content of the fake orders so there are no discrepancies."

Kiara looked up at Marika.

"This creator says that they can get around the HQ's checks and balances."

"Oh my."

Remembering the operational plan she had just spoken, Marika looked away from Kiara. Then she realized.

"Wait a second, if that's true, even if you give an unlikely false command, they can conveniently rewrite the higher-level commands and operational structure to match it!?"

She opened the Galactic Conquest Kit herself.

"It also says that they haven't tested it in a real environment because they don't have the development time."

Kiara skimmed over the instructions, which seemed to be a collection of boilerplate phrases.

"If you give a false command that involves a change to the tactical program, they'll compare multiple operational commands and check for inconsistencies from the bottom up, and even rewrite other commands based on the false command. This isn't really a program that can get around HQ."

"You're right..."

Marika's eyes grew grim as she read the same manual.

"Hey, isn't this a bit too destructive?"

"What's the problem?"

Chiaki asks.

"If you're sending a false command to the enemy's command and communication network, it's bound to be destructive, right?"

"That's true, but last time, it was just a retreat command, so it was rejected by the check mechanism as being inconsistent with tactical policy and quickly corrected. It's just a false command, so that's all we were expecting, but if this can be rewritten up to a higher tactical level with just one false command, doesn't that mean it's possible to control the enemy at a tactical level?"

Kiara's hand, which had been scrolling through the instructions on the display at high speed, stopped.

"That's what it means when you reach out to the HQ and issue false commands. If they act the way you want them to, then this one program can take over the HQ."

Kiara displayed a list of the kit's contents.

"Galactic Conquest is a good enough name for it, isn't it?"

"This is more than just a tactical program. If you use it properly, it could be a strategic weapon, right?"

Hearing Marika's words, Chiaki looked back at the Conquest Kit, which had only a list displayed on the display.

"Did the strategic weapon arrive through a battle information network that even rookies on the front lines can connect to?"

"But if you follow the instructions, this is extremely malicious."

Kiara continued to read the extremely careless instructions.

"It rewrites other orders and operations one after another to match the first fake order. Of course, it doesn't leave a history of the changes. So no matter how many times you run the checker, it doesn't check for inconsistencies, so the first fake order won't be canceled. Not only that, it also rewrites higher-level operational orders to match the lower-level fake orders."

"It doesn't stop?"

"There's no explanation for that."

Kiara searched the list for other instructions.

"When you rewrite the higher level commands to resolve the contradictions, it doesn't say anywhere that it stops at the tactical level. If you take the manual at face value, it won't stop until you've rewritten not only the strategic level, but even the very foundation of the Imperial Fleet's existence."

"No way!"

Chiaki spoke up.

"No way the Imperial Fleet's command and communication network can be rewritten that easily..."

Marika and Kiara both had the same difficult look on their faces. Chiaki frowned as she looked at the two of them.

"You're rewriting the command and communication network?"

"Maybe even the entire Joint Staff Headquarters."

Kiara started moving her hands again.

"Unfortunately, I don't know much about the structure or security of the command network, and I don't think it's that easy to take over the command network that controls the Imperial Fleet, the galaxy's greatest military force. But I can't tell how strong the spell in this galactic conquest kit is."

"Let's try it," Marika said casually.

"That way, we'll know if this is really a kit that can conquer the galaxy, or if it's just a toy that can be easily cut."

"If the fake command from earlier worked until it was corrected by the checker, that means this will get through to the entrance, right?"

Kiara asked.

"What if we get that far?"

"First of all, we have to think about the victory of 'Blue'. If we can achieve that goal by supporting from the rear, not using the weapons we have is the worst kind of treason against the enemy. Secondly, even if the entire command and communication network is taken over, 'Blue' will not be affected because it is not under the control of the command and communication network."

"In the worst case scenario, the entire Imperial fleet except for the training fleet in the Gaia system may be taken over."

"Also, if the attack is to expose the flaws in the command and communication network or the combat information network, if it is successful, it will only be a score and you will not be blamed later. It is easier to deal with and clean up after a test attack from an ally than a malicious attack from the enemy. It's such a powerful kit, so it wouldn't be strange if someone else participating in this exercise used it at any time, not just us."

"If we were to use it," Kiara asked.

"What kind of orders are you going to give?"

"Hey..."

Hyakume's voice changed as he saw the contents of the Galaxy Conquest Kit that had arrived through the Blue combat information network.

"Isn't this dangerous?"

"Dangerous? What?"

"Well, with this attack structure, the attack program keeps rewriting the orders of the chain of command, whether it's higher or lower, so that there are no contradictions in the orders issued. As long as the Wildcard's authority is valid, the rewriting will continue indefinitely, and since there's no record of the rewriting, no contradictions will come up even if the checker is operated. It'll go all the way to the top of the Red command communication network."

"I wonder if it'll stop at Red?"

Hyakume couldn't help but ask back at the muttering that came from the bottom of the electron nest.

"What?"

"The command and communication network is a tree-like structure with the Joint Staff Headquarters at the top, connecting the entire galaxy. It's managed systematically for each fleet and operation, and security is managed as strictly as humanly possible, but it's still a military line that prioritizes practicality. I don't think the wildcard we're using this time can be used indefinitely, but if there's no limit to the higher-level structure we can access, then the authority to intervene may also be unlimited."

There was a pause in Coorie's words as he thought for a moment.

"What do you think? The intelligence department trusted us and sent us a wildcard, and it comes with a passkey that changes every hour."

For security reasons, wildcards must be used with a passkey that changes every hour.

"At least, the deadline is until the end of this graduation exercise," Schnitzer said.

"The Imperial Fleet has traditionally placed importance on the security of communications. They've suffered through that more than once."

"But what about the authority?"

Coorie said.

"This wildcard might be able to get you all the way to the Joint Chiefs of Staff if you just wanted to peek, but do you think the authority allocation has been properly considered for viewing and practical use?"

"No."

Hyakume answered.

"I don't think the intelligence department would be that concerned, and I don't think that big bro would check that much."

"And at least in the work we've done so far, we haven't run into any situations where we lacked authority."

Schnitzer added. Hyakume groaned as he displayed the contents of the Galaxy Conquest Kit on the display.

"Hmm, should I have checked to what extent it could be used? But it would be troublesome if I accidentally challenged too high authority and caused unnecessary suspicion, and it would be scary if I went straight to the Joint Chiefs of Staff's staff meeting."

"If it wasn't a problem with the Wildcard's authority, what did you think was dangerous?"

"It's obviously impossible to pretend not to notice at this point."

Hyakume said to Coorie.

"If it's true that it rewrites the inconsistent parts of the chain of command in the command communication network to match the false orders, then this thing can rewrite all the orders. If an outsider wanted to control an operation as they pleased, wouldn't they use something like this?"

"Is it possible?"

Schnitzer asked to confirm. Hyakume nodded.

"Yes, it's possible. It analyzes the logical structure of commands issued in a language, and issues additional commands as necessary, or rewrites other commands to make them consistent. It's quite a virus. Where did you get something like that, Lynn?"

There was a pause in Schnitzer's answer as she thought about it.

"Viruses that change the content of surrounding messages to suit the person who set it are not that rare. In the archives of the Imperial Fleet's electronic warfare department, there are all kinds of viruses from the beginning of history, from finished products to failed ones. We take out a sample that suits our purpose, check whether it can be used in the current situation, and adjust it if necessary. If you remember what programs to bring in and when to use them, whether for electronic warfare or for civilian networks, it will only take a moment to find it."

"I see, that's what a wizard needs."

Hyakume shrugged.

"The archives of the Imperial fleet? Seems like you can summon any monster with a single spell."

"And this monster is boosted with the strongest spell available in this airspace right now."

Coorie added.

"If you wanted to control the war as you please, don't you think the magic wand you need to use to do so would look something like this?"

"Ah..."

Hyakume spoke up. Schnitzer's reply was delayed even further.

"Is that so? Is that why you used the wildcard on Lynn?"

"Lynn’s instinct to use any means to achieve her goals is impressively sharp."

Coorie's hand stopped.

"As far as I can tell from checking here, there are no bugs or oversights. Yes, if I release this Galactic Conquest Kit into the Red command and communication network, it will probably work as intended. If you want to call it dangerous, it's the most dangerous thing you could ever hope for."

"Are you going to let our students use such a dangerous strategic monster?"

"At least, the Blue command center hasn't removed the Galactic Conquest Kit from the combat information network, nor has it been banned. Well, maybe they just don't have a checker who can judge to that extent, but if this works as intended, I think we can say that the hypothetical enemy is using almost the same model to control the war."

"Are you trying it on the command and communication network!?"

"I think it's a lot less prepared and more straightforward than the hypothetical enemy's method, though."

Coorie tapped the control panel to check the contents of the Galactic Conquest Kit. Since it can't be examined in detail in its current state, it can only be passed through a quick checker.

"If an order is issued that goes against the enemy's policy, aren't you interested in how the enemy will react? Will they rewrite the command network in a similar way, or will they deal with it in some other way?"

"Is there a possibility that the enemy will decide to run away without dealing with it?"

"I can't deny it, but I think it's low."

Unusually, Coorie voiced a wishful thinking.

"From hand-to-hand combat against aircraft carriers to the melee of a large fleet, this graduation exercise has been selling off unprecedented special developments. If the hypothetical enemy were to control this graduation exercise, it would be an ideal development. In that case, I would hope that they would hold out even if they were slightly hindered."

"Considering the battle situation and the remaining time, we probably only have one more chance to mess with the Red command network. Considering the number of people watching this Galaxy Conquest Kit on the combat information network, wouldn't it be better to issue the next order as soon as possible?"

Kiara succinctly summarized the current situation.

"That's true, but if you're not careful, you could end up rewriting the entire command and communication network from top to bottom, so what kind of orders are you supposed to give?"

Chiaki said, looking at Marika.

"You can't give any really flashy orders," Marika said.

"If I were to give the order to Red's main force to retreat here, with this kit, there's a chance it would go through without being checked, but if I'm going to give an order that deviates too much from the exercise scenario, I need a reason, and that reason can't be created just by giving the order, so if the goal is to disrupt things with fake orders, I can't give orders that are too far off from the current situation. Is that correct?"

"I don't know if I'm correct, but I'm sure that in order to increase the success rate of fake orders, it's easier to get orders that follow the scenario so far."

"Red's goal is to win this graduation exercise. Well, it's more important to let the military academy students experience combat that is very close to real combat than to win, but let's leave that aside for now. Given what's happened so far, I can't suddenly order Red to retreat or surrender, let alone to stop fighting."

Marika mutters to herself as she thinks.

"As always, the policy is for Red to use its superiority to achieve an overwhelming victory, and orders that will help Blue, who is trying to win by overturning their advantage."

"Can you give orders like that!?"

"And one more thing."

Marika switches the battle display one after another.

"If we're deliberately creating a special situation that wouldn't normally occur in this graduation exercise, then orders that will keep the situation moving forward normally."

"What kind of orders are you thinking of?"

"If we just want the exercise to proceed normally, the orders we need to give are already decided."

Marika doesn't look away from the display.

"The orders we should give here are the most boring and obvious ones. Orders that will lead to a boring development, where all the computer predictions come up with the same answer."

"Isn't that a contradiction in policy?"

Kiara calmly pointed out.

"Just the fact that Blue, which is at a disadvantage against Red, wins a comeback victory is enough to go against normal predictions, and on top of that, it's a boring, obvious development. How can you make such convenient orders?"

"I'm thinking."

Marika doesn't stop switching between the battle display that shows the general situation and future predictions.

"We're still ignoring the command and communication network and acting on our own, ignoring the chain of command using only the combat information network. In that situation, we succeeded in concentrating our attacks on Red's higher-ranking command ships, but this was just a fluke, so we need to quickly focus on the command and communication network or we'll be pushed back and lose again. Red follows the command and communication network, so we can quickly change course and react quickly."

"The current prediction is that Blue has the advantage, but even though they've hit some of the higher-ranking command ships and forced some to withdraw from the battlefield, there's still a difference in strength, so if they maintain their current tactics, they'll be pushed back again."

Kiara slides the time span of her future prediction to the time the exercise is scheduled to end.

"Should we hold out until the end of the exercise and aim for a draw? What's the HQ's plan?"

"Wait to see what the remaining forces will be?"

Chiaki makes a dissatisfied noise.

"Won't the judges deduct points for a passive combat attitude?"

"If the battles continue at this pace, there will be a fair number of battles, so it won't be considered passive, but it's true that it's hard to call it proactive command from a command center that has to aim for victory compared to the front lines, where a record number of battles are being fought. What do you think? Can you think of any boring, obvious orders that would change the course of action in this situation?"

"That's why I said it was contradictory."

Marika, who was sinking deep into her seat and muttering to herself, suddenly realized something.

"I see, maybe there's more than one order that needs to be issued."

Marika tried muttering out loud.

"If we issue two or more contradictory orders at the same time, we can destroy the Red's command and communication network."

"What do you mean?"

Kiara asked while checking the latest status of the patrol network, which was her main job. Marika explained.

"So, for example, if you issue an order for an all-out attack and an all-ship retreat at the same time with this Galactic Conquest Kit, the related orders will be rewritten one after the other to execute the order. If you try to execute contradictory orders at the same time, the previous and following orders will be rewritten one after the other to make them consistent, and either way, the command network will freeze or the front line will collapse, and I think that Red will be damaged."

Kiara gasped in amazement.

"So you're trying to use the Galactic Conquest Kit's feature of understanding logical structure and rewriting orders to destroy the command network?"

Kiara looked up from the display and looked at Marika.

"You're coming up with some pretty scary ideas."

"That's an amateur's idea. I'm not an expert on electronic warfare, but do you think you can do it?"

"I'm no professional either, but at the very least, I can't think of any reason to conclude that it's impossible."

Kiara's voice sank. "But there's no guarantee that the destruction of the command and communication network will stop at this graduation exercise. It may not stop at the command and communication network of the Third Fleet, which is not participating in this exercise, but may destroy the command system of the entire Imperial fleet."

"I don't think we need to worry about that much, but I think it'll be fine if we sneak a little contradiction into the tactical orders, rather than a strategic order that changes policy with a serious logical contradiction."

"What do you mean specifically?"

"Same as before. A temporary withdrawal to gather forces and strike back. Retreat. However, it would be boring to give the exact same order, so instead of retreating and regrouping regardless of the situation, we'll specify a time to regroup. The fake order from earlier should have given you a good idea of ​​Red's response pattern, so this time the checkers shouldn't react."

"That's the kind of order?"

"Yes, that's an order that wouldn't be out of the ordinary coming from Red's headquarters. But what if we specified different retreat directions and meeting places?"

To reorganize a fleet in the middle of a battle, it is necessary to pull them out of the battle airspace and put them on standby. The remaining forces, current positions, and circumstances are different for each ship, so the effort of withdrawing from the battlefield and reorganizing the formation is not easy, even with the use of optimal computer predictions.

"That's boring."

Kiara seemed to laugh.

"I'll send out a boring command, with enough contradictions built in to cause an error. If it works, it might freeze the command network, and if it doesn't, it could disrupt it. Even if it fails, I don't think it will cause any damage to Blue. It's a shame that it's so unimpressive, considering that we're going to mess with the command network, but if it's such a benign command, no one will object. If we're going to do it, wouldn't it be better to do it as soon as possible?"

Creating tactical commands is not that difficult. All commands since the command network's creation have been archived, and declassified ones can be viewed from patrol boats on the front lines.

The format of commands is roughly fixed. Select an appropriate standard phrase, rewrite the issuer, destination, and necessary proper nouns and numbers, and make it into a command.

Orders issued by headquarters contain not only the main text, but also codes and symbols. The completed command is passed through a checker set up for this exercise to adjust the format and embedded codes, and is sent to Blue HQ via the combat information network as a tactical proposal.

Just when it seemed certain that only mechanical automatic confirmation had been performed, the message came back that the fake order had been approved.

"I wonder if they really checked it?"

Chiaki looked suspiciously at the approval screen, which returned with almost no time lag, even though it was via a FTL line, and checked to see if there were any corrections to be made.

"These things should be put into a simulator to see what the impact is, and they shouldn't be approved until they predict that it won't cause a disadvantage, but the fact that it returned properly through the correct procedure means that it must have been checked, even if it's fully automatic."

"At this point, there have been no other proposals to send fake orders to the command network using the Galaxy Conquest Kit."

Kiara was checking the battle information network.

"Even though they managed to get into the command network, the initial order was corrected unexpectedly quickly, so I guess they're struggling to find an effective way to attack."

"They're probably only expecting us to provide covering fire from the rear anyway. We'll be lucky if we get any results."

Marika checked the details of the fake order she had created once again. The wording was the same, an order to the frontline "Red" capital ships to temporarily retreat in order to launch a concentrated attack after reorganizing their forces. Only the retreat direction and target assembly point were specified as three locations based on the current battle space: the inner planet side, the outer planet side, and three locations on the same orbit but on the opposite side of the planet's rotation direction from the home planet.

"Well, I want to issue three different orders at the same time, but they'll be numbered in the order they were issued."

The orders are sent from Patrol Boat 680 to the command communication network via the "Red" FTL line built on the Myradodo. Even if three orders with different retreat directions and regrouping points are sent out at the same time, they will be numbered and treated as separate orders when they reach the command line.

"I think it would be more disruptive to have different orders mixed in with the same order, but I'm not in a position to be so bold."

Marika set the fake order in the launcher.

"So, can I go?"

"Go ahead." “Do it.”

"Here I go."

Marika fired the fake order from the launcher.

At that moment, the highest level of emergency alert (red alert) sounded at the Joint Staff Headquarters in the core star systems, which commands the Imperial fleet.

A black rectangular object with white border

Description automatically generated

Alerts to the Imperial Fleet's command and communication network are color-coded according to their urgency and importance.

Although the visible frequency band and color expression differ depending on the race, many creatures instinctively avoid the red region as a warning color. The highest level of emergency alert, red alert, among the alert colors is issued when it is judged to be a life-threatening crisis that requires a quick response.

Subsequent analysis determined that this red alert was a grave crisis, concerning not only the survival of the Imperial fleet but the survival of the command and communication network, and was issued by the Central Complex, the central computer of the Joint Chiefs of Staff.

"What?!"

Hyakume raised his voice. The highest level emergency alert (red alert) that was sent to the entire command and communication network disappeared in just an instant. The huge, sturdy, FTL line that commands the Imperial fleet throughout the galaxy shuddered once and resumed normal operation.

"What happened!?"

"I never thought I'd see a red alert on the Imperial Fleet's command network with my very own eyes."

Schnitzer muttered gravely.

"If it weren't for the authority this ship has now, I probably wouldn't have noticed."

It's rare for an emergency alert to be issued on the command network. It's also extremely rare for an emergency alert to be issued regarding the operation of the command network, rather than being sent through the command network.

"Was it a mistake or a display error?"

Hyakume checked the records.

"What happened and where?"

"We're analyzing it now."

In electronic combat with a FTL line, even a thousand-day stalemate can be over in an instant. Coorie used his abundant authority to copy all the relevant records to the Bentenmaru's storage and began analyzing them.

"The fake order issued by the captain was actually an order to retreat and regroup in order to reorganize the Red forces. It was in line with the flow of the exercise, and not only was it not suspicious, it also did not contradict the policy of the Red headquarters."

Schnitzer summarized the current situation as it was able to be confirmed and reported it.

"The problem is that the fake orders contained intentional errors."

"There were three different directions for retreat and assembly points. If it was a normal order, it would have been caught by the checker and would have been corrected as an error, but because it was issued while protected by the Galaxy Conquest Kit, which rewrites related orders to match the fake orders, the orders were not retracted, and the error led to a battle to correct the error as much as possible, is that right?"

"Normally, corrections are recorded for each order and can be referenced later, but the corrections are to attack programs for electronic warfare. They are only rewritten without leaving a record of the corrections. Then, the next attack program looks at the rewritten contents and makes further corrections. When this infinite loop occurred, the checker in the command and communication network was activated and deleted the problematic order itself."

"So the checker was activated as it should have been and removed the contradictory orders."

Hyakume scrolled through the excerpts of the records sent by Schnitzer.

"That means the checker is working as it should, just like the command network."

"The problem is where it was activated. Despite the error in the Third Fleet's command network, it was the Joint Staff Headquarters checker that was activated."

"What!?"

Hyakume hurriedly rewound the excerpt he had been scrolling.

"If the Joint Staff Headquarters checker was activated on the Third Fleet's command network, that's a big deal. Even though multiple checks are the norm, you're getting scolded by your superiors for not noticing a mistake in your own network?"

"No."

Coorie's voice came from the bottom of the electron nest.

"The Joint Staff Headquarters detected a suspicious interference with the Third Fleet's command and communication network. The Headquarters didn't interfere with the error in the Third Fleet's command and communication network, it just realized that the Command Center was playing with the command and communication network."

"An intrusion into the Third Fleet from the Joint Staff Headquarters?"

Schnitzer had also reached the same data.

"And it wasn't an intrusion into the command and communication network during a graduation exercise, but during a regular battle. But this route..."

"Yes, the Joint Staff Headquarters used a regular route that didn't produce any dust no matter where you hit it."

"I'm surprised the checker worked against something like that. What in the world did you come all the way from the Joint Staff Headquarters in a core star system to jump all the way here for?"

"Correction of a command error in the graduation exercise."

"What!?" "Really!?"

Hyakume and Schnitzer's voices were in unison.

"During the graduation exercise, an error was being corrected in a retreat and reorganization command sent over the command and communication network to the Third Fleet, which was in the midst of a chaotic battle. The command sent from the Joint Chiefs of Staff was caught by the checker."

"How did something so stupid happen again?"

"We had the same wildcard."

"What!?"

"The wildcard my kids used for the fake command was exactly the same as the wildcard sent by the Joint Staff Headquarters to correct it. It's not normal for wildcards issued from places as far away as the Joint Staff Headquarters and Gaiapolis to be exactly the same. So the checker was activated, determined that it was an illegal use of the wildcard, and issued an emergency alert (red alert) on the command communication network."

"You're right, you can tell that much in such a short time."

Hyakume finally caught up with the data that Coorie used for analysis.

"Wait a minute, the wildcard my kids used for the fake command is the wildcard that Bentenmaru got from the intelligence department, right? So the command that came from the Joint Staff Headquarters used the exact same wildcard!?"

"That's right."

Coorie replied in a tired voice.

"When it comes to wildcards of that level, the person using them is no fool, so as soon as he noticed that the checker had been activated, he retreated and erased all commands and traces. The checker detected the unauthorized use of the wildcard and issued an emergency alert, but the wildcard used later disappeared, so the operation of the command network was not affected and the alert was lifted as there was no need to shut down the command network. This is probably the biggest problem."

"Is lifting the alert the problem?"

"Anyway, there's no way for a living nerve to do anything about a FTL line, so it's all handled by automatic settings, but for this level of red alert, there are a lot of complicated and troublesome procedures specified. It's a measure against the command network, which is the backbone of the Imperial fleet, so it's only natural, but he skipped all that and just lifted the alert."

"Is that even possible?"

"Yes, it can be done. As long as you have a wildcard with the authority."

Hyakume took a deep breath. The display that Schnitzer was connected to by nerves stopped.

"So that's it," Schnitzer said.

"The same wildcard that was used illegally was also used to cancel the emergency alert. Is that so?"

"Maybe, though..."

Coorie's voice had regained its usual lively quality.

"But of course, the command and communication network remains on alert. I guess we've finally seen the tip of the tail at the very end."

An alarm sounded on the bridge of the Bentenmaru, indicating an incoming call. Hyakume responded.

"I'll answer this way. ...Harold Lloyd Insurance Association? Yes, yes, I'll answer now."

After a thorough encryption line establishment and confirmation procedure, Nat Nashfall himself appeared on the communication monitor. Hyakume raised one hand in greeting as the intelligence officer appeared on the sub-monitor.

"Hey, this is Bentenmaru, I'm hard at work."

"*This time, I'm using the insurance company's line.*"

Military lines are recorded. In the civilian world, insurance and bank company lines are said to be the safest and most reliable.

"*Is it okay if I speak to you now?*"

"Well, as you know, a red alert was issued on a specific network, and things have become a mess, but if it's a sponsor's call, I can't refuse."

"*Yes, that's exactly what I'm asking about.*"

Nash's expression was unusually grim.

"*I'll ask for a report on the situation later. Is there anything I should do now?*"

"Pass him over here to me."

From the depths of the electron nest, Coorie called out.

"Okay. I'll pass the line to our expert."

"Oh, there's not enough room on the display, so only audio. Are you recording as much of the command network as the Joint Chiefs of Staff can capture?"

"*In addition to the regular recorders, the entire investigation department is recording live footage. Are you guys responsible?*"

"Well, I'd be lying if I said we weren't involved in this situation. We certainly helped set it up."

A heavy sigh came from the other end of the FTL line.

"*So what can we do for you? Need a fire extinguisher?*"

"If we put out the fire right after a red alert goes off on the command network, it's like confessing that we're involved. It's okay, there's a bigger fire burning that we don't want to get to."

"*Yes.*"

Nash's voice contained a smile.

"*Thanks to this, not only the intelligence department but the headquarters are in a bit of a panic.*"

"You saw it too, didn't you? Someone from the Joint Staff Headquarters is messing with the Third Fleet's command and communication network."

"*Because it's a graduation exercise, there are many lines connected for the purpose of observing. However, we were able to confirm that there was a noise that was strong enough to cause the checker to react.*"

"That's the tail of the hypothetical enemy you requested."

Coorie said in between quick keystrokes.

"For now, it's enough that we can confirm its existence. The hypothetical enemy is cautious and intelligent enough that it probably won't come out for a while even if we leave it like this. It may be a little far from your intentions, though."

"*Yes, it's several times faster than we expected and the results are dozens of times better. With all these records in front of them, no expert can say that the command and communication network is not contaminated.*'

'Then I understand. The fake order this time used the same top-level wildcard that you handed over to us. Wildcards change frequently depending on authority and time, but the command sent from the Joint Chiefs of Staff to the Third Fleet's command and communication network probably used the same wildcard. And the command that responded to it and lifted the emergency alert on the Checkers probably used the same wildcard.'

'*Find out who issued the wildcard?*'

"That's right. Even though the wildcards were made by the intelligence department, they were leaked to subcontracted pirates, so they probably had security in place to prevent them from being traced back to their source, but wildcards used at the same time and in the same place should be limited to ones with the same code to ensure safety. But if we look at the other parts of the illegally used wildcard, we should be able to find out where it came from or if it was counterfeited."

"*Our investigation department has already started analyzing that matter. Is there anything else I can help you with?*"

"I see..."

Coorie thought for a moment.

A ringtone rang out on the bridge of the Bentenmaru again. Hyakume answered it.

"This is a regular call from Luca. I'll answer it. What do you want to do? What is this direct call?"

"*I've got something I need you to do.*"

Luca appeared on the communications monitor, still in his instructor uniform, and the screen was split in two to show Lynn, who was sitting next to him.

"*Currently en route to Gaiapolis. A key witness in this case is on the run, so can you please vacate everything before her room gets raided?*'

'Wh, what, what are you talking about?'

Unable to understand the contents of the communication, Hyakume checked Luca’s current location and the passengers.

'*It's Lynn, thanks for your help.*'

Lynn, still in her cadet uniform, greeted from the monitor.

'*I'm heading over there with Luca now. If we go by our calculations, the command and communication network should be in trouble soon, so we're planning to get away before the fallout hits us.*'

'That's ridiculous.'

Coorie, who was looking at the communication monitor out of the corner of his eye, muttered.

'So that's why a cadet who was participating in a graduation exercise left the front line and ran away?'

'*I hate troublesome things.*'

Lynn in the monitor put her hands together in prayer, with a disgusted look on her face.

"*If we leave it like this, even if we eventually get rescued from somewhere, it's bound to be a pain until then. Is the command and communication network still functioning normally?*"

"It's functioning normally now."

Coorie's voice contained a smile.

"The emergency alert was activated and it almost stopped once. In other words, the timing was perfect for escaping. So, what, should I vacate the dorm room?"

"*I had anticipated something like this happening, so I've tidied up everything so that it won't be a problem if I run away, but if I'm going to run away anyway, I'd better leave no trace, erase all traces of my presence there, and it would be even better if the Intelligence Department would take care of the data.*"

"Schnitzer?"

Coorie called out from the bottom of the electron nest.

"Can I leave it to you? I'd like some of your marines to pose as movers and empty Lynn's room."

"Understood."

Schnitzer opened the line.

"I'll hand it over to Captain Kaien. You'll be dispatching to the dorms and arranging the props and stage equipment."

Schnitzer looked at Nash on the communications monitor.

"Can I ask you to do that?"

"Got it."

Nash nodded with a wry smile.

"*We'll prepare the orders and permits. Is there anything else you need?*"

"Oh, yes."

Coorie thought for a moment and said.

"It's not a kit they made, but the emergency alert this time was triggered by a fake command sent by our captain's group to the Red command network. They're newbies who aren't used to the field and won't run away after they've done their job, so if they're questioned or interrogated after the training is over, please help them."

"Okay."

Nash on the communications monitor nodded.

"*We'll do everything we can. Oh, by the way, I found out where Kiara Feish, who is taking part in the exercise on the same boat as Kato Marika and Chiaki Kurihara, is from*.'

Coorie glanced at Nash on the communications monitor.

'If she didn't contact me just for that, it must not be that important information, right?'

'*It's not important, but it is interesting information. She comes from a remote area that is not part of the Galactic Empire, which is not unusual in itself, but her previous occupation is interesting.*'

'Was she a pirate or something?'

Nash on the communications monitor was at a loss for words.

A collage of a person

Description automatically generated

"*...You got it right. Did you notice?*"

"She seems to get along well with our captain, so I just thought they were in the same business. She doesn't seem to have a privateer's license like us."

"*Before entering the military academy, Cadet Kiara was a navigator aboard the Chimera of Scylla, under the guardianship of Muller Grant.*"

After reading the original text on the display, Nash looked up at Coorie.

"*She’s from a pirate guild on the frontier. They're keeping it a secret because they're dealing with genuine pirates, but it seems the situation is known not only to our superiors but also to the higher-ups at the Joint Chiefs of Staff.*"

"So they’re all pirate girls."

Coorie ran her eyes over the latest battle situation of the graduation exercise.

"No wonder things aren't going to go smoothly."

Coorie looked at Nash on the communications monitor.

"Who was behind it, making sure that only pirates were gathered for the graduation exercise?"

"*I wonder?*"

Nash tilted his head, still smiling.

"*At this point, I don't know if it was just a coincidence, or if the military academy had some kind of ulterior motive. Shall I look into it?*"

"...No need to."

Coorie shook his head disinterestedly.

"Even though my kids have cut out the pirate-related details, they haven't used fake names or changed their faces, so there's no point in nitpicking about that. More importantly..."

Coorie looked straight at Nash on the communications monitor.

"When we're done, it's not just Cadet Lynn who wants to close up shop and move on to the next job. We want to do the same. If this is the end of our work here, I think we should start withdrawing as well."

"*Speaking of withdrawing,*" Nash switched the display outside the monitor with a knowing look on his face.

"*Tom & Jerry 37 is currently in Gaia West Spaceport preparing for departure. I understand, I will notify all concerned parties.*"

The fleet battle in the outer planetary system was moving from a melee to the next phase.

The battle airspace where enemy and friendly fleets were in disarray was expanding while the opportunities for combat were decreasing as the superior force of the "Red" fleet temporarily retreated and reorganized outside the battlefield. The "Blue" fleet pursued the retreating main force of the "Red" fleet and achieved some success, but if the forces of the "Red" fleet, which were gathering, reached a certain level, it would no longer be possible to achieve effective results.

"I guess the fleet battle is over."

Marika said, looking around the battlefield, where the battle display now showed color-coded friend and foe, and the white lights indicating combat had decreased dramatically.

"Once the Red fleet has assembled, it will be difficult for the Blue fleet, which is weaker in combat power, to launch an attack."

Kiara calmly predicted the battlefield.

"And now that we've dealt with it, we're telling you to return to the command network."

"Okay."

Direct orders rarely come from the command network to the patrol boats at the edge. Chiaki began the procedure to restore the channel of the Blue command network that had been cut.

"I wonder if there will be another fight today."

Marika was watching the movements of the Red fleet, which was forming its formation, and the Blue fleet, which was also retreating from the battlefield.

"A fleet battle can't start unless both sides are in a position to win or there are unavoidable circumstances, but considering the time left in the exercise, I think this is the end."

"Even though their command and communication network was broken once, if the remaining forces of 'Red' are still sufficient, it will be difficult for 'Blue' to attack."

Kiara glanced at the same data.

"That being said, even if 'Red' has the advantage, it will not be easy to attack if 'Blue', which has the advantage of the ground, solidifies its defensive posture. Considering the remaining time, I think we will end it with a wait-and-see match."

"Command and communication network is back."

Chiaki announced.

"Dummy command and communication network cut. Umm."

It wasn't that far off from the latest battle situation, but the command and communication network of 'Blue', which had temporarily removed its forces from the command and communication network, was flooded with false data to deceive 'Red'. Before returning the command and communication network to normal operation, the dummy data that Patrol Boat No. 680 had received was erased.

"Connect to command and communication network."

Chiaki suddenly stopped her hand as she authorized the semi-automatic procedure.

"You don't think we'll be taken over while you're trying to get hold of the 'Red' command and communication network, do you?"

Marika, who was predicting the future of the battle, and Kiara, who was checking the latest status of the patrol network, looked up. They looked at each other without anyone noticing.

"No way." "The headquarters has already dealt with it, so it should be fine."

"Well, let's connect."

Chiaki returned Patrol Boat No. 680 to the command and communication network. After the automatically set recognition procedure, Patrol Boat No. 680 connected to the 'Blue' command and communication network, and the latest orders came down.

"Yes, confirm connection."

Marika, who was in the captain's seat, looked over the display.

"So, what are the latest orders? Any new orders that we need to deal with aside from continuing to maintain the patrol network? Hmm?"

Marika noticed an alert flashing discreetly in the corner of the 3D display. She flicked it with her fingertips to check the contents.

"Self-destruct sequence starting!? What's this!?"

"Self-destruct?"

Kiara in the operator's seat started to move her hand.

"Self-destruct means it will explode on its own? Why?"

"This!"

Marika sent a duplicate alert to Kiara and Chiaki's seats. She opened it to see the details.

"We've confirmed a network attack by an enemy force, so we've begun a self-destruct sequence to maintain confidentiality. What's a network attack at this point!?"

"Well, doesn't that mean that the new network we recently connected to is not ours, but the enemy's?"

"That means that the command and communication network is not ours, but the enemy's!?"

"Or maybe our communication network was taken over by 'Red' in the same way that we were, or even better. Ah, it's a command and communication network, so it's firmly embedded in our command system. We'll try to deal with it and see if we can stop it, so you two try to cut us off from the command and communication network again."

"Chiaki, please cut off the communication network."

"Okay, um, is it my fault?"

"It's not just us."

Marika ran her eyes over the battle information network.

"It looks like all the ships that have returned to the command network, big and small, have been destroyed."

"What about HQ?"

"We recommend following the manual. We're scanning the command network with our electronic battleship, but that electronic battleship is now firmly connected to the command network, so I don't think there's any hope. Do you think we can do anything about it?"

"The command network was locked as soon as it returned."

Chiaki announced.

"If we just wanted to cut it off, we could do it with a physical shutdown, but after that..."

"Then, shut it down."

Marika gave the command.

"Do you think we can stop the self-destruct mechanism?"

"It's a self-destruct mechanism to maintain secrecy, so if we were a bigger ship there would be various ways to avoid it, but ours is small, so once it starts to activate, I think it can only be stopped by HQ's authority."

"I see."

Marika checked the settings of the self-destruct mechanism.

"The setting of not using live ammunition is still in effect in the training setting. That means that even though it's a suicide bomb, it probably won't actually explode, but if it can't be stopped, it will be judged as a suicide bomb."

"That means that if you're still in the boat when it self-destructs, you'll also be judged as killed in action?"

Chiaki asked as she went through the shutdown procedure for the communication device connected to the command communication network. Marika nodded vaguely.

"Probably."

"It's fine that the patrol boat was hijacked through the command communication network because of a mistake on the part of the command center, but it's no fun to go along with it and get judged as a death in action."

Kiara was trying out various procedures to stop the self-destruct sequence.

"What if we can't stop the self-destruct sequence?"

"Escape."

Marika unbuckled her seatbelt and rose from the captain's seat.

"Thank goodness we brought the powered suits. We'll cut off the command and communication network before starting up. If we had a way to escape and the moment of self-destruction occurred inside the boat, our results would plummet."

The powered suits were activated while disconnected from Blue's command and communication network, and thanks to careful checks, they were unaffected by network or electronic attacks.

The crew failed to stop the self-destruct sequence of Patrol Boat No. 680. Marika decided three minutes before the self-destruction, and she, Chiaki, and Kiara abandoned Patrol Boat No. 680 and escaped from the boat in their powered suits.

A group of women in a space suit

Description automatically generated

Marika, Chiaki, and Kiara waited outside the boat at a safe distance for the time of self-destruction. Since this was a training exercise, of course there was no actual self-destruction, and Patrol Boat 680, with its antennas fully deployed and visible through the optical telephoto lens, remained motionless in combat mode with its navigation lights off.

"*Patrol Boat 680 determined to have been destroyed by self-destruction.*"

Kiara relayed the information transmitted through the combat information network to the other two, who were swimming nearby.

"*Although, we're not the only vessel that had its self-destruct mechanism deactivated when it returned to the command communication network, so the destruction determination is quite impressive.*"

"*Yes.*"

The network attack by "Red" against "Blue" via the command communication network recorded an astonishing success rate.

Among the vessels that had participated on the "Blue" side since the start of the exercise, those that had returned to the command communication network in the normal manner were not affected by the network attack by "Red". The damage was concentrated on some ships that skipped the normal procedure for returning to the command network, and ships that were part of "Red" at the start of the exercise but changed affiliation to "Blue" midway through, specifically ships that were used by "Blue" after being captured.

Subsequent analysis revealed that "Red", having decided that hand-to-hand combat was unavoidable, had left secret commands on its ships, and that when "Blue" returned to the command network, it had successfully attacked the enemy command network just as "Red" had, setting off a trap.

The timing of the countdown to the self-destruct command, in the name of confidentiality, was short, so the result was that the ships and aircraft carrier units that quickly returned to the command network of "Blue" were the victims. The majority of the aircraft that were late in returning to the command network escaped danger thanks to an emergency call via the combat information network.

However, it was determined that 20% of the aircraft belonging to ``Blue'', which had once been captured from ``Red'' and placed under its fighting force, had self-destructed and been lost in this attack, and most of the patrol network that had been newly deployed by the captured force was also determined to have been rendered non-functional.

Those who lost their boarding ship or boat to the suicide attack were deemed to have been killed in action if they were on board at the time of the suicide, but were deemed to have survived if they had taken measures to escape and were at a safe distance away, despite losing their aircraft.

The cadet who was unable to stop the self-destruction of Patrol Boat No. 680 was given new orders to leave the scene and help with rescue operations for damaged ``Blue'' boats in the vicinity. The boat, which had self-destructed and become non-functional, was left unmanned until the end of the exercise.

A single powered suit would not be much of a fighting force in combat, rescue, or patrol, but it could help with rescue searches.

Participants who were determined to have survived would have to wait for a rescue aircraft to be dispatched to pick them up. Marika, Chiaki, and Kiara, along with the three powered suits, were assigned support duties.

The graduation exercises were scheduled to last three days, and while there was still just under 20% of the time remaining, the actual combat in the graduation exercises for the new cadets had already ended.

And so, the 1258th Gaiapolis graduation exercises reached its scheduled end with the attacking Red team still in the lead.

Blue, who briefly succeeded in attacking Red's command and communication network out of the melee, continued their coordinated fleet attack and did not allow Red to advance any further, but the damage they suffered was great. Towards the end of the battle, a large number of captured ships that had once belonged to Red were lost through self-destruct commands, which tipped the balance of power heavily in Red's favor.

Even after that, Blue, who was on the defensive, continued to take aggressive offensive measures until the end, were unable to break the difference in the balance of power.

Depending on the situation at the end of the exercise, the judges may be late in deciding who won. However, the results of this exercise were announced as soon as it ended.

On the first day, the Blue guerrilla fleet attacked the Red supply fleet, and after hand-to-hand combat, the Blue fleet was victorious, capturing two aircraft carriers.

The fleet battle that took place from the second to the third day was also won by a narrow margin in favor of the Blue fleet.

However, due to the large-scale self-destruction of the captured boats following the return of the command and communication network on the third day, and the resulting loss of the Blue fleet's patrol network, the final victory was declared to be the victory of the attacking Red fleet.

In the end, the Numbers Fleet, who played the attacking side, crushed the defending cadets by judgement, a common outcome in graduation exercises.

Marika, Chiaki, and Kiara welcomed the end of the exercise into interplanetary space as an auxiliary unit for search and rescue. Although the patrol boat was no longer usable, the Trooper Command E-type powered suit was equipped with sufficient communication functions, radar, and sensors. With more than enough equipment compared to small civilian boats, it could at least serve as a substitute for the sensor antenna deployed by the rescue boat.

However, the driver inside the powered suit doesn't actually have much to do. Information from the powered suit that has joined the combat information network can be accessed as desired by rescue boats that need it, and if necessary, the powered suit's radar and sensors can be operated from outside.

"*I guess it's like a punishment game for the cadets who didn't die in battle but lost their boats.*"

Marika, surrendering to weightlessness, had the visor of her powered suit displaying information about nearby ships and a wide-area battle display. If you use an intraocular display that directly displays visual information to the retina, the amount of information that can be displayed increases dramatically, but Marika doesn't use it because it takes some getting used to.

"*If you actually escape in a powered suit, you might end up drifting for days before being rescued, right?*"

"*If it looks like it will take too long to be rescued, it seems like one option is to have them sleep in a state of suspended animation through drug administration, either in a rescue boat or a space suit.*"

Since they are drifting in space without orbital control, the three powered suits are gradually increasing the distance between each other. However, Kiara's voice, connected by radio, remains unchanged.

"*This time, it's easier because there's a guarantee that you will definitely be rescued. Look, the next command has come. Graduation exercises over, drifting cadets should wait for rescue boats.*'

Marika read the same order on the display and skimmed it.

'*Got it. Is this really the end of the exercise?*'

Marika erased all the displays in her field of vision and looked around the space through her visor.

'*That's easy. What about the patrol boat that self-destructed?*'

'*We haven't received any orders regarding that yet.*'

Chiaki answered over the radio.

'*Even if it self-destructed, it was only a judgment, so should we retrieve it and return it to the aircraft carrier, or return it on autopilot. We'll have to clean up after the exercises anyway, so I guess we should return it.*'

“*A search and rescue ship, Harpie Angel, belonging to the training fleet?*'

There were no other people in need of rescue in the surrounding space, so a medium-sized rescue ship approached at a high speed that was inappropriate for its size. The approach was first detected by a transponder signal, then by the wide-area radar of the powered suit. Kiara aimed her scope at the rescue ship, which had come close enough to be seen with the optical telescope.

"*You've got to be kidding me, it can’t be the Bentenmaru.*"

Hearing Kiara's voice over the radio, Marika wondered if the Empire had a spaceship with the same name, and aimed the optical telescope of her powered suit at the approaching rescue ship.

The scope, which had precisely captured the target detected by the radar, caught a glimpse of a slender ship approaching at normal speed.

"*Huh...*"

There was no mistaking the silhouette of an old-fashioned ship that was over 120 years old and equipped with two triple-barreled main guns.

"*Oh, this whole conversation will be recorded, right?*"

"*I forgot.*"

Kiara replied without changing her tone.

"*Rescue ship, Harpie Angel, approaching. We know your position, so just wait for rescue.*'

The three powered suits approached the rescue ship Harpie Angel, which had come close enough to slow its relative speed, and they approached under their own power. The powered suits were much lighter and more maneuverable than the light cruiser-class rescue ship.

The three powered suits landed one after another on the starboard storage deck of the Bentenmaru, which was packed with aircraft. After confirming that Chiaki had landed last, the old-fashioned armored shutters began to close mechanically.

As soon as the shutters closed, the powered suits' combat information network was cut off. The latest combat information from the training airspace that had been being broadcast also stopped.

'*Well, I’ll do that.*'

Muttering, Marika looked around the Bentenmaru's storage deck, which should have been familiar to her. The equipment and spare parts containers had been moved around, but the communication craft and carrier-based fighters were in their usual places and there seemed to be no abnormalities.

"*Storage deck closure complete, air pressure and artificial gravity restored.*"

An announcement was heard from inside the powered suit. Kiara was looking around the suit with interest. Marika kept her feet firmly on the deck to avoid stumbling when the artificial gravity returned, and concentrated on the information displayed on the display.

Since boarding the patrol boat, she had been in a weightless state for about a day and a half, so the return of the artificial gravity for the first time in a long time made her feel a similar sensation of dizziness.

The sound of the noisy circulator, which prioritized efficiency, grew louder, and air and sound returned outside the powered suit.

"Yes, thank you for your hard work."

Coorie opened the thick pressure-resistant door and entered the storage deck.

"The air pressure has returned, so it's okay to open your helmet."

Feeling an indescribable sense of discomfort, Marika flipped the headset off her powered suit. She remembered the smell of oil and ozone mixed in the storage deck.

"Welcome back, Captain, Chiaki-chan, and welcome to the Bentenmaru, Cadet Kiara Feish."

Kiara also flipped the headset off her powered suit, and looked around at both Coorie, who was in his usual robes, and Marika, who was still in her powered suit.

"Who should I ask for permission to board?"

Marika looked at Kiara again.

"You knew?"

"The last time I saw Bentenmaru, I was on the Chimera of Scylla."

Kiara gave Marika the Imperial Fleet-style salute.

"I was on bridge duty, so I've seen the Bentenmaru and the captain's face. You didn't really think that you could enter the military academy without a fake name or plastic surgery and that no one would notice you, did you?"

"Oh, I see..."

Marika returned the salute with a stiff smile. She glanced over at Chiaki, who had also removed the headset from her powered suit.

"Now that I think of it, something similar happened before."

"I'm telling you, Marika is more famous than you think."

After saying that, Chiaki realized what Marika was looking at.

"What, me too?"

"A professional pirate approached me, hiding his identity."

Marika stopped saluting and looked at Kiara's face again.

"So we were in the same business. But why was a pirate from the frontier at the Imperial military academy?"

"Yeah, it was a personnel exchange between the frontier pirates and the Imperial fleet."

Coorie looked around at the three of them.

"It seems to be a top-secret operation that was not even announced to the intelligence officer who went to Skull Star to make contact. The fact that the Imperial Fleet, which is supposed to only think about annihilation when it comes to pirates, is negotiating with pirates from the frontier who don't even have licenses, is enough to cause a scandal."

Looking suspiciously at Coorie, Marika turned her eyes back to Kiara.

"So why did you go out of your way to gather only pirates as freshmen at the military academy?"

"That was just a coincidence."

Coorie's thick, bottle-bottom glasses gleamed.

"I want to say that, but to be honest, I don't know how the Imperial Fleet and the Military Academy, who should know the identities of all the new students, even if they don't know the details themselves, introduced the new students to each other or arranged them in this way. The fact that these two are roommates must have been arranged by the Intelligence Department, but who was it that arranged the daughter of a pirate from the frontier, who had been in contact with them since the entrance exam, together with them? Well, I guess it was extremely effective in terms of making the most of the candidates' potential."

Seeing Kiara and Chiaki's faces, Marika bowed her head in disappointment and sighed deeply.

"You are allowed to board the Bentenmaru. It's so embarrassing that my identity was revealed from the beginning."

Marika looked up at Coorie.

"So, what? You came all the way to pick me up, so does that mean your work here is done?"

"My work here is done."

Lynn, who hadn't yet changed out of her electronic battleship crew uniform, entered through the open pressure door.

"I don't know yet how the intelligence department, who requested this, will evaluate me, but I've done everything I can for now. If I stay as a trainee, it'll just be a pain to explain the situation, so I've decided to run away."

Seeing Lynn explain with a refreshing face, Marika turned her eyes back to Coorie.

"You agree?"

"Yes."

Coorie nodded.

"I think the Intelligence Department's request has been fulfilled with more than enough results. Various investigations will be launched from the Joint Staff Headquarters to the relevant companies, but if the subject of the investigation remains at the crime scene, they won't be able to ignore it, so I have removed everything to avoid unnecessary trouble."

"Oh, I see."

Marika found out that the job had been completed without her knowledge. She turned to Kiara, who was smiling amiably.

"Well, I need to explain the situation, don't I?"

"If possible."

"How much time do you have, Coorie?"

"It depends on what we do next, but Bentenmaru is heading to Patrol Boat No. 680, which has been ordered to be retrieved by Blue's headquarters."

"Not right away."

Marika muttered, remembering the distance to Patrol Boat No. 680 that she had checked on the powered suit's display before landing on Bentenmaru.

"Okay. Well, as you've probably guessed, Chiaki and I didn't come to the academy to become Imperial Fleet officers."

"Don't call me Chiaki."

"We were asked by the Intelligence Department to infiltrate the academy to investigate. It seems that we got some satisfactory results from that investigation during this exercise."

Marika turned her gaze to Lynn.

"Did Lynn manage to do it all by herself?"

"No, no, it was all thanks to you for messing up the graduation exercise."

Lynn waved both hands.

"I heard that you made good use of the Galaxy Conquest Kit that I made."

Not only Marika, but Chiaki also looked at Lynn’s face.

"Did you make that, senpai?!" "That's why..."

"Thanks to you guys' bold attack on Red's communications network with the Galaxy Conquest Kit, our job went well."

Coorie looked around at the three people still in their powered suits.

"Well, I finished my work so I decided to go home before things got too complicated, but Lynn, the mastermind, said that if I left you guys behind, she'd definitely hate me, so I borrowed the name of a rescue ship from the training fleet and came to retrieve you."

Coorie turned to Kiara.

"If you were on the Chimera of Scylla, you might have seen my face. I'm the Bentenmaru's electronic warfare specialist, Coorie. Thank you for taking care of our captain and his crew."

"No. Thank you."

Kiara looked at Coorie's face and whole body carefully, then decided to give him a curtsey greeting by pulling one leg back and lowering her hips while still in her powered suit.

"It's an honor to meet the most talented person on this side of the galaxy, as Auntie Mira said."

It took the time it took for Coorie to blink to remember the name of Mira Grant, the captain of the Queen of Love, and the job of entertaining on Skull Star.

"Oh, you. Anyway, we've finished the job requested by the Imperial Intelligence Agency, and we're just going home. We're not interested in the talent exchange between the Imperial fleet and the pirates on the outskirts, who are apparently struggling to keep things secret by making various arrangements in various places. So, I'd be happy if you wouldn't be interested in our work any more."

"What do you mean, we hate you?"

Chiaki asked Lynn. Lynn crossed her arms convincingly.

"My instincts told me it was time to run away, so I decided to do so. The rest will be handled by the intelligence department bro, that's what I promised. But you guys haven't crossed any dangerous bridges in this job so far, and you haven't committed any wrongdoings. If you want to, you can return to the ship and complete the rest of your course at the academy."

"Eh?"

"However, in that case, you will have to submit a detailed battle report of the exercise and attend a review meeting."

Lynn looked around at the faces of the three cadets in their powered suits.

"You have achieved great results, succeeding in capturing an enemy aircraft carrier on the first day, and attacking the enemy's command and communication network on the third day. If you don't submit your report properly, the instructor will be annoyed, and you will probably be asked a lot of questions during your interview. The detailed battle report and review meeting after the graduation exercise is called the Seven Days of Ice, and is hated by the cadets."

The three cadets looked at each other.

"The attack on the command and communication network using the Galaxy Conquest Kit affected the Joint Staff Headquarters in the core star systems, but since I managed it through our sponsor, I shouldn't have an interview where I'm interrogated about things I didn't know. But, well, I made a detailed battle report of three consecutive days of exercises in the Imperial Fleet's specifications, it was rejected, so I remade it and finally thought they would accept it, and now they're reading my classmate's report and going through the operation process and having a long debriefing session, it's really tough."

"Senior"

"What?"

"You had a lot of trouble, didn't you?"

"Yeah, it was tough."

Lynn shook her head.

"And, as a senior who knows that, I thought that if I ran away and left them behind, they'd resent me."

Lynn smiled at the three cadets.

"So, you have two options. You can either return to the patrol boat and serve as an officer cadet during the Seven Days of Ice as ordered after returning to the mother ship, or you can run away with us."

"Run away." "Same here."

Marika and Chiaki quickly raised one hand. Kiara smiled back at Lynn and didn't raise her hand.

"As someone who was accepted into the military academy through a talent exchange, I can't run away whether it's the Seven Days of Fire or the Seven Days of Ice. It's okay, the recorder is working, and we can just input the battle report according to the model and organize it, right?"

"It's okay, it's okay, I wish you the best of luck."

Lynn saluted Kiara. Kiara turned to the remaining two cadets.

"So, if two of your fellow passengers disappear when you return to the ship after the graduation exercise, it'll be difficult to report."

"Oh, then there's nothing to be worried about."

Coorie took out a mobile device from his robe and ran his fingertips over the display.

"Command has called two people, Cadet Kato Marika and Cadet Chiaki Kurihara. After the exercise, the three crew members of Patrol Boat No. 680 will be taken aboard the rescue ship Harpie Angel, and only Kato Marika and Chiaki Kurihara will transfer to the Harpie Angel. Cadet Kiara Feish will return to the patrol boat and return to the ship alone. Is this okay?"

The three powered suits rang. The cadets each put their headsets back on and checked the new orders that had been received.

"Confirmed. You're free to do as you please."

Kiara flipped her headset up again.

"And this is a bonus."

Coorie flipped the device again.

"This is the person who requested this job, an intelligence officer working at HQ. He agreed to give you his contact information. If you're here on a talent exchange, you probably have a number of routes to higher-ups, but be careful when you use it so you don't run into them."

Coorie put his favorite mobile device back into his chest.

"If you have any other questions, I'll answer to the best of my ability."

Kiara looked around at Lynn, Coorie, and the two candidates in powered suits standing on the storage deck.

"You two have no intention of becoming Imperial Fleet officers?"

Marika waved her hand grimly after hearing that.

"No way, no way, there's no way I could work in such a strict place!"

"I've been on pirate ships since I was a child, so I've completely absorbed the pirate way of life. It'd be hard to adapt to a different way of doing things now. Are you planning on becoming a fleet officer?"

"Yes, I do."

Kiara nodded.

"However, there's not much merit unless you're fairly important, but at least you can get good results as a sample for the talent exchange."

"*From the bridge to the storage deck.*"

After the familiar sound of a switch, Hyakume's voice came from the speaker on the storage deck.

"*Rendezvous completed with Patrol Boat No. 680 belonging to Myradodo. I've secured Bentenmaru, no, Harpie Angel, in a place where we can make a quick a jump.*"

"One more thing."

Kiara turned back to Marika.

"It doesn't have to be a hotline, but can you give me the contact information for the pirate ship Bentenmaru? It might be useful."

"Yes, yes."

I know Bentenmaru's contact ID by heart. After thinking about sending the ID via the powered suit's communication system, Marika told Coorie.

"Do you have Bentenmaru's business card?"

"I thought you'd say that."

Coorie took out a small card from the pocket of his robes and handed it to Marika. It was just a paper card with an ID printed on it, not electronic paper or anything.

"Yes."

Marika handed the card to Kiara.

"If we use a communication line, a record will be left behind, so I'll give it to you here. It's just a contact number that you can look up if you look it up anyway."

"Thanks."

Kiara took the card.

"Handle with care. Well, I think it's time to head home."

"Marika and Chiaki, take off your powered suits."

Coorie ordered.

"I'll empty the powered suits and return them to the patrol boat by remote."

"Got it."

Marika quickly turned on the deactivation switch for her powered suit.

"I'll be asking you to clean up afterwards, so please be kind."

"The cleanup is always harder than the actual battle."

Kiara put the headset back on her powered suit.

"I'll lend it to you."

She grinned and began to relock the headset.

The three powered suits returned to Patrol Boat No. 680 with all functions down, one with the driver inside and the other two empty.

All three powered suits were stored inside the boat by external operation, and the patrol boat, which had come back to life, soon retracted its deployed antenna and entered high-speed cruising mode.

After seeing Patrol Boat No. 680 off, the rescue ship Harpie Angel notified the Gaiapolis Training Fleet Command that its mission was complete and left the star system.

It was after the first FTL jump touched down that the rescue ship Harpie Angel recovered the transponder of the pirate ship Bentenmaru.

One week later...

"Taking a leave of absence!?"

Marika cried out in the captain's seat on the bridge of the Bentenmaru, which had just taken off from orbit around Sea of the Morningstar.

"You skipped the post-exercise review and report and ran away, and instead of being expelled or dropped out, you're taking a leave of absence!?"

"*As mentioned earlier, Lynn Lambretta's admission letter to Space University has already been sent.*"

The intelligence officer on the other side of the communications monitor continued as if he didn't know anything.

"*The final results for Kiara Feish's graduation exercises have been announced. Her grades have placed her in the top 5% of the candidates who enrolled in the 1246th class, including Marika and Chiaki.*"

"That's fine, but why did something half-hearted like me and Chiaki taking a leave of absence happen!"

"*Both Kato Marika and Chiaki Kurihara have also achieved excellent grades, placing them in the top five percent. If we limit it to the evaluation of the practical training, their results will be in the top one percent, which is an extremely good result.*'

Nash looked up from the original display.

'*The instructors at the military academy made a special appeal, saying that it would be a shame to let such excellent candidates go.*'

'But what?'

'*We couldn't resist either, so we decided to put you both on leave for personal reasons. We received a message from the military academy saying that you are welcome to return at any time, but it is up to you both to decide whether or not to return.*'

'I have no intention of joining the Imperial Fleet.'

Marika shook her head perfunctorily.

'Or, what about you? Are you planning to ask me to do another job that requires me to go to the military academy?'

'*At this time, there are no plans to do so.*'

Nash looked away from the communication monitor.

"*Lynn will be going to Space University, but you two haven't decided on your future after graduation, right? As the largest company in the industry and the most stable place of employment in the galaxy, isn't the Imperial Fleet worth considering?*"

"So what!"

Marika glared at the intelligence officer on the other side of the communication monitor with her best nasty look.

"I'm still a space pirate! I have no shortage of work!"

"Final settings complete."

Luca came to her rescue with a disinterested voice.

"I can jump to my client anytime."

"Well, I have to go to work, so this is it. I'll give my regards to Coorie."

"*I'll send you a report on the unauthorized use of the command and communication network in a separate mail, so please inform them to take a look at it if possible.*"

"But what are you saying?"

Marika looked at the electronic warfare seat of Coorie, which had much less additional equipment compared to its heyday. Coorie answered without even turning around.

"I don't need a progress report. Reading a report without any results is a waste of time."

"Y-Yes."

The intelligence officer on the other side of the communications monitor still looked like he wanted to say something, so Marika gave him a military academy-style salute to signify the end of the communication.

"Then, all the best."

The Bentenmaru took off into hyperspace.

**Afterward**

Greetings after a long time

Sorry for the long wait. We are finally delivering Super Miniskirt Space Pirates 2, also called the Fierce Electronic Fleet Battle.

How are you all doing? Sasamoto has survived safely in the testing northern land. Last summer was hot, and this winter was cold.

But I never thought that the world would change so much due to an infectious disease.

I think that there are many people in the general writer industry who do this, but Sasamoto has also been working from home away from the editorial department since the beginning, and has been practicing remote work from an early stage.

To Sasamoto, who is about to go on a reporting trip to cover rockets with no return schedule decided, the editor says, "No matter where you are or what you are doing, I just want you to submit the manuscript by the deadline."

So I thought that the impact of the coronavirus pandemic would not be so great until around the spring of 2020, when people were urged to refrain from going out to prevent infection, and many changes have occurred since then.

Of course, I have a good working environment at home, but it's also true that if it's too comfortable, you'll end up avoiding work. So I rented a shared workspace about 30 minutes away on foot. It's an old-fashioned computer that's only for writing, and it's on Sasamoto's desk in a classroom from an old elementary school. It's an outdated desktop that can't even be connected to the internet, but it's not a problem because I built it in the first place to have a work environment that doesn't connect to the internet. And if I'm just writing texts, it's not a problem even though it's an ancient computer.

The distance between my home and my workplace is quite delicate: 30 minutes by subway with one transfer, 30 minutes by bus, and 30 minutes by foot. If I commute by foot or motorcycle, I should be able to minimize the chance of infection.

So, even though I said I was working from home, I mostly commuted to work when the weather and my physical condition allowed.

I said I could work even though it was an old computer, but even in the testing northern land, the summer of 2020 was hot. It wasn't hot enough to require the use of an air conditioner, but it was hot. I don't know if it was because of that, but my 20th century CRT display that I had been using for over 20 years suddenly disappeared.

You may be surprised that I'm using a CRT display, or cathode ray tube, in this day and age, but I like to use things as long as I can.

Another thing is that since my job requires me to look at the display for long periods of time, I have the brightness and contrast of the screen turned down to the limit where I can still read it. Adjustments like this are less stressful on my eyes and the cathode ray tube. Even though it was made in the last century, it was a high-end CRT display, so I was able to make such fine adjustments freely, but one day the screen suddenly stopped working.

I had no choice but to use a wide LCD display that I had saved as a spare.

However, my previous CRT display was small at 15 inches, while my new LCD display, which is 10 years old, is 20 inches wide. When I display a horizontally written manuscript on the full screen, the horizontal movement of my viewpoint is too large and it makes it difficult to work.

I have no choice but to adjust the manuscript to be displayed on about half the width of the display, and somehow manage to create a manuscript writing environment.

In addition, another desktop that I occasionally started on as a spare machine stopped starting up, and 2020 was a year of various computer-related "breaks even though I didn't do anything" issues.

Also, due to various circumstances, I was unable to renew the lease on the workspace I had been renting for about 10 years, so I will be moving out in the spring of 2021. Since it was my policy to keep as few unnecessary things as possible at my workspace, the move itself wasn't too much of a hassle, but because of this, I have to work from home, where there are plenty of places to escape to. First of all, turn off the internet? That's true.

The decline in physical strength due to aging is also steadily creeping up on me.

When I was younger, I used to work in the middle of the night after dinner, but that's no longer the case. Generally, once you reach middle age, you don't have the energy left to work at night or in the middle of the night when you wake up normally. If I can get through the number of pages of manuscripts during the day when I still have the physical and mental strength, my working hours are becoming healthier and healthier.

Nowadays, the morning is the best time to make money. I figured that if I could wake up, eat, and start working while I'm not tired, I'd be able to concentrate and work.

Things don't usually go as planned, and I have plenty of time and space in the morning, the internet is right in front of me, and I have a pile of recordings to watch, so I wonder if I can really start writing my manuscript. No, people can't be that convenient.

However, I know from both theory and experience that I can't work unless I start in the morning, and I can't do good work before going to bed at night, so I have no choice but to do it.

I thought about finding a room to work in, like a student boarding house with no bath nearby, but I wrote most of the final stretch of work at home.

And yet, the COVID-19 pandemic continues outside.

Last spring, I never expected that this turmoil would continue into next year.

Thanks to that, I've barely been able to go on leisure trips or reporting trips. Depending on the time of year, not only movie theaters but also art galleries and museums may be closed, and there are exhibitions that you can only see by traveling to the mainland.

This is a personal matter, but I wear glasses all the time. I have to wear a mask when going out to prevent infection, but if I accidentally take earphones with me, the frame of my glasses, the mask string, and the earphone ear hook will all be on my only ear at the same time, which is extremely annoying.

But that doesn't mean I can go out without my glasses or a mask. My glasses fog up easily when it's cold, and I can't forgive COVID.

I've been looking at this COVID-19 pandemic as a very interesting model case of how the world will face a common enemy of all humanity when it appears. What I never imagined would be that if all of humanity were to be equally called upon to be on the front lines, I would be a part of it.

As a long-time writer, I no longer have the illusion that humanity would unite against a common enemy. I was wondering why the world situation is still in such a mess, but I'm grateful that effective measures have been put in place. I hope that it will come around to us this summer, or at the latest this year.

I don't know if pre-COVID life will return next year, or if we will have to deal with a different future. However, I am relieved that the story is not set in the present day, when we have to immediately reflect this social situation. Come to think of it, the collapse of the Soviet Union had some impact, although not as much as the spy industry.

The main story continues from the previous volume with space fleet battles in the computer/network era.

The basic procedure of combat - searching for the enemy, confirming the enemy, fighting, and once the battle is complete, searching for the next target to attack - has hardly changed from ancient times to the present. So I can imagine that the basics will remain the same in the future.

Even in the present day, the procedure of a command center seeing a distant enemy that cannot be seen with the naked eye through radar, confirming it with allies located far away, and ordering them to attack is being automated with the help of computers. In a universe where computers and networks are sufficiently developed, I wonder if something with observation equipment far superior to humans, or rather living intelligence, that is, eyes, and communication equipment that can reach far away, that is, voices, will be able to operate weapons located far away, that is, arms. If things go wrong, won't there be no need for humans on board?

Even today, there are no humans on the missiles that fly towards enemy planes and enemy cities.

So, with advanced enough technology, will wars become possible with fully automated systems? Is there room for humans there?

There is no doubt that machines have an advantage over humans in understanding the current battle situation and taking appropriate action. If a machine is properly set up, it can respond faster, more reliably, and without getting tired.

The Imperial Fleet is a huge military organization that has been fighting for thousands or even tens of thousands of years. There must be a huge number of battle records, and there must have been ample research into them. If there is enough data on both sides, and if simulations can be performed as many times as weapons are developed, not just before actual combat, it may be possible for a new battleship to become obsolete while it is being built.

In fact, before World War I, a huge battleship developed with an innovative idea quickly rendered previous battleships obsolete. The British new battleship Dreadnought, which was commissioned the year after the Battle of Tsushima in the Russo-Japanese War, not only made all previous battleships obsolete when it was put into service, but also sparked a fierce competition between powerful nations to develop and build the ship. As a result, the Dreadnought, which was incorporated into the Navy in 1906, had become obsolete by the start of World War I in 1914 due to further technological advances and changes in tactical ideas, and was dismantled after the war's end, less than 20 years after the war. Even in an age without the Internet or computers, technological progress is rapid.

This is a space fleet that can use FTL speed, inertial control, and anti-gravity. If these three things are all present and have been in operation for many years, even if it is a super technology, it should be well-used, thoroughly researched, and mature. The problem is how to use it, and as a space opera writer, you have to be able to use the technology as it should be.

Even in the future, when computers and networks have reached their technological limits and been fully developed, and we can no longer expect any groundbreaking advances in hardware, it will still be humans who use them. Moreover, as a writer who depicts it, you have to consider everything that is technically possible. If you can, that's ideal. And even if you can't do everything, you have to do everything you can think of.

How would such a powerful force as the Imperial Fleet fight, and how could you win against them? For what reason was that fighting style constructed in the first place? What kind of battle would a force that thoroughly analyzes battles and makes as many tactical predictions as possible fight?

Space battles while thinking about such things were always tiring and troublesome. In general, it's difficult even to get to the point of a battle situation. This time, it was assumed that there would be a battle, so we could skip that part and start the real thing right away, but by then the placement and overall policy had to be decided, and the development after that had to proceed along with the story. I wonder if in the future, if computers advance sufficiently, they will be able to automatically write battle scenes that make sense (it's impossible).

Anyway, I was thinking about what I would do if I came to the conclusion that it would be more rational to fight without characters if I dug too hard into the setting, and the story ended up developing as you can see. If we assume that battles and wars occur for the convenience of intelligent beings (humans), then I was a little relieved at the obvious conclusion that humans have to be involved in the process and outcome.

While I thought it would be troublesome if the Imperial Fleet, which is set to be the strongest in the world, really became the strongest and most untouchable, I also thought that it's unlikely that what humans do will go so smoothly. Well, if that conclusion were to come to that, I guess they'd just have to come up with some pirate-like tactics that break the rules.

If it's just battle, it works better to leave it to the machines. That's probably true. But battles involve the surrounding circumstances, and those circumstances change from moment to moment. It's easy to order a machine to "fight," but is the operational objective appropriate? Should I destroy the enemy? Or should I drive them out of the battle airspace? Or should we create a situation where the enemy cannot move easily and hold them back?

The enemy is not stupid, and if the difference in strength or positioning makes it easy to predict that they will be defeated, they are not going to join the battle so easily.

If we add up all these possible situations, we can see that even if we can predict the battle with a high probability, it is not omnipotent.

Anyway, Sasamoto has now tried a large-scale space battle with future prediction, so please look forward to seeing how the next battle will be or will not be the same.

The world has changed a lot during the long period of writing.

I thought about writing a plausible analysis of what the world will be like from next year onwards, and how the degree of chaos will deepen, but when I think about it, it's not like the future has been unclear for a long time. In the 20th century, no one expected that the 21st century would be like this, and during the Heisei era, no one predicted that the next era would be called Reiwa.

But I am optimistic that if we use our imagination appropriately and conveniently, things will work out. If they don't work out, we'll just work it out. This is probably not the biggest crisis, and it won't be the last.

But I hope the situation will be better when the next book comes out.

So, I hope you all stay healthy and see you in the next book.

June 3, 2021 (Oh, I can boldly put in the date now)

Yuichi Sasamoto



Sasamoto Yuichi

1963: Born in Tokyo.

1974: Becomes hooked on "Space Battleship Yamato" from the original broadcast.

1979: Watches "Mobile Suit Gundam" from the original broadcast.

1982: Reads "Galactic Beggars’ Army" and learns how to use airplane pilot manuals as reference books.

1984: Published "Operation Fairy"

1992: Published "Come and See the Stars Dance"

1992: Begins researching rockets from the first H-II rocket to write a space opera.

2008: "Miniskirt space pirate" battle begins!

2012: "Moretsu Space Pirates" televised.

2014: "Moretsu Space Pirates" theatrical animation was released.

2018: "Miniskirt Space Pirates" second battle begins!

Matsumoto Noriyuki

Worked for a game company for about 10 years. After that, he became a freelance illustrator, working on illustrations for light novels. Currently, his main activity is manga. His representative works include "Rin - Noriyuki Matsumoto Art Collection" (Enterbrain), "Tsubame Yodamari Shoujo Kiko" (Tokuma Shoten), and "Minami Kamakura High School Girls Bicycle Club" (Mac Garden).

A cover of a video game

Description automatically generated