

HACKTORIA

A blue propeller-driven aircraft is shown in a steep, inverted descent, crashing into a dense, lush green jungle. The plane is tilted, with its wings spread wide. Debris, including small pieces of metal and wood, is scattered in the air around the aircraft. The background is a bright blue sky with some white clouds. The overall scene conveys a sense of a dramatic and dangerous crash landing.

LOCATE THE DOWNED PILOT IN
THE ECUADORIAN JUNGLE

EMERGENCY
TRANSMISSION

Chapter 1: Shots in the Amazon

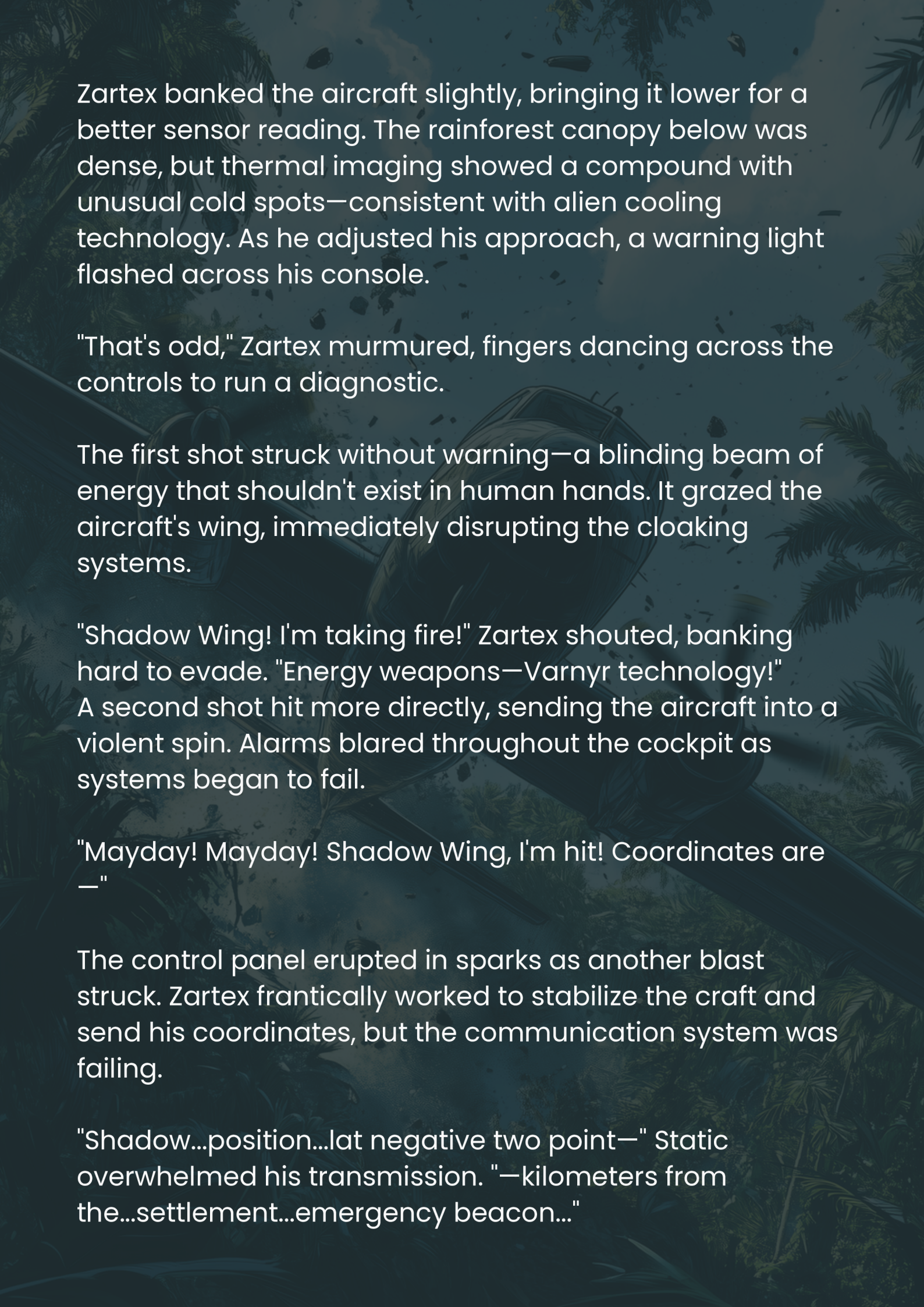
The sleek, modified Cessna Citation X+ cut through the clouds above the Ecuadorian rainforest, its matte black exterior nearly invisible against the darkening sky.

Unlike typical human aircraft, this one contained technology far beyond anything publicly available on Earth. The cockpit displays glowed with symbols unfamiliar to human eyes, and the pilot's long, slender fingers moved with practiced precision across the control surfaces.

Klumgon Pilot Zartex was on his third surveillance pass of the region. The Volrac's large, expressive eyes narrowed as he studied the unusual energy readings emanating from a clearing approximately twenty kilometers ahead. His mission was straightforward: document evidence of possible alien technology smuggling in this remote region without detection.

"Shadow Wing, this is Nightshade. I'm detecting unusual energy signatures consistent with Varnyr power cells. Proceeding to gather visual confirmation," Zartex reported, his voice carrying the distinctive melodic cadence of the Volracs, despite his perfect command of English.

"Copy that, Nightshade. Maintain stealth protocols and keep transmission discipline," Pablo Iglesias's steady voice responded from the Shadow Wing command center.



Zartex banked the aircraft slightly, bringing it lower for a better sensor reading. The rainforest canopy below was dense, but thermal imaging showed a compound with unusual cold spots—consistent with alien cooling technology. As he adjusted his approach, a warning light flashed across his console.

"That's odd," Zartex murmured, fingers dancing across the controls to run a diagnostic.

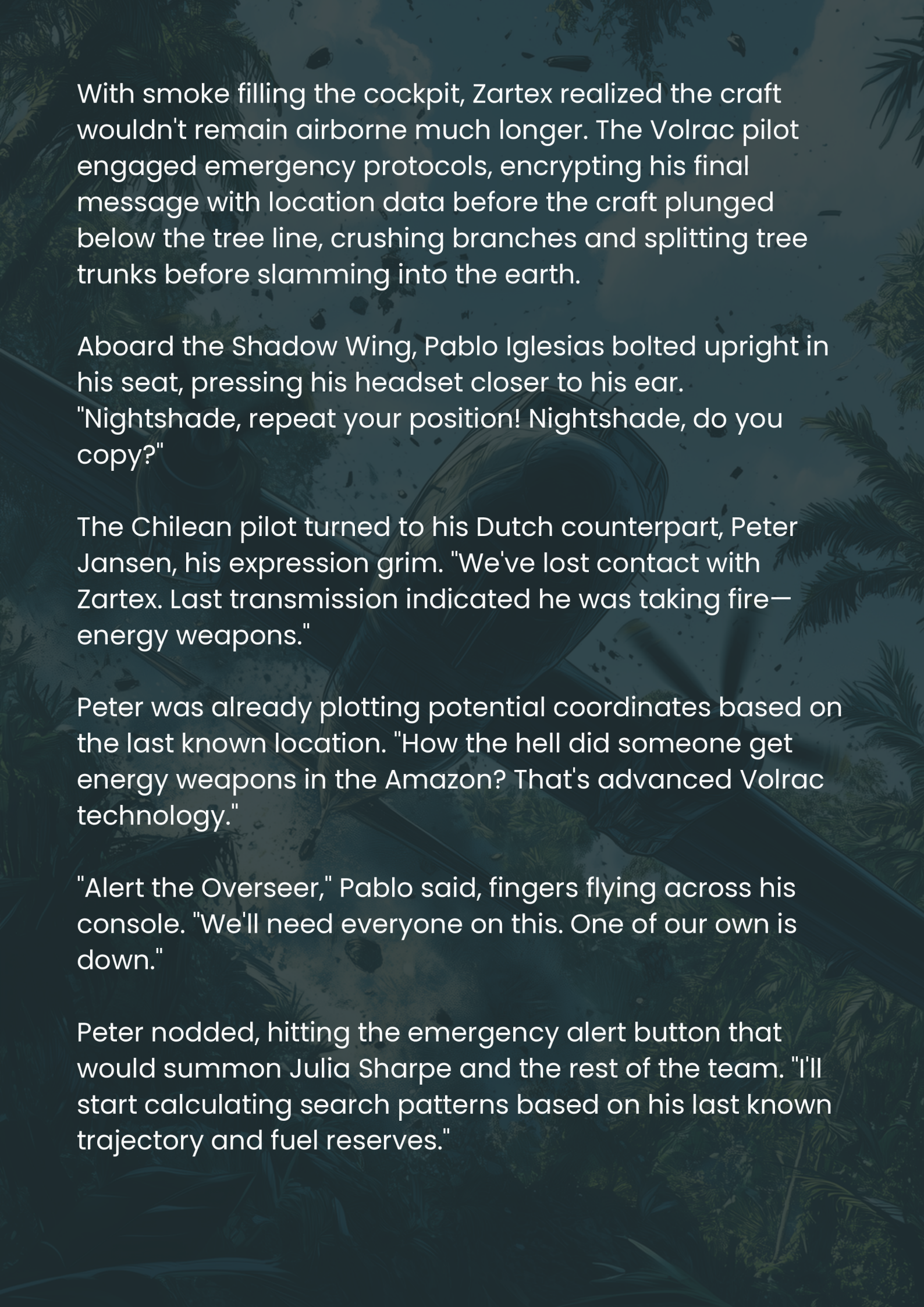
The first shot struck without warning—a blinding beam of energy that shouldn't exist in human hands. It grazed the aircraft's wing, immediately disrupting the cloaking systems.

"Shadow Wing! I'm taking fire!" Zartex shouted, banking hard to evade. "Energy weapons—Varnyr technology!" A second shot hit more directly, sending the aircraft into a violent spin. Alarms blared throughout the cockpit as systems began to fail.

"Mayday! Mayday! Shadow Wing, I'm hit! Coordinates are —"

The control panel erupted in sparks as another blast struck. Zartex frantically worked to stabilize the craft and send his coordinates, but the communication system was failing.

"Shadow...position...lat negative two point—" Static overwhelmed his transmission. "—kilometers from the...settlement...emergency beacon..."



With smoke filling the cockpit, Zartex realized the craft wouldn't remain airborne much longer. The Volrac pilot engaged emergency protocols, encrypting his final message with location data before the craft plunged below the tree line, crushing branches and splitting tree trunks before slamming into the earth.

Aboard the Shadow Wing, Pablo Iglesias bolted upright in his seat, pressing his headset closer to his ear.

"Nightshade, repeat your position! Nightshade, do you copy?"

The Chilean pilot turned to his Dutch counterpart, Peter Jansen, his expression grim. "We've lost contact with Zartex. Last transmission indicated he was taking fire—energy weapons."

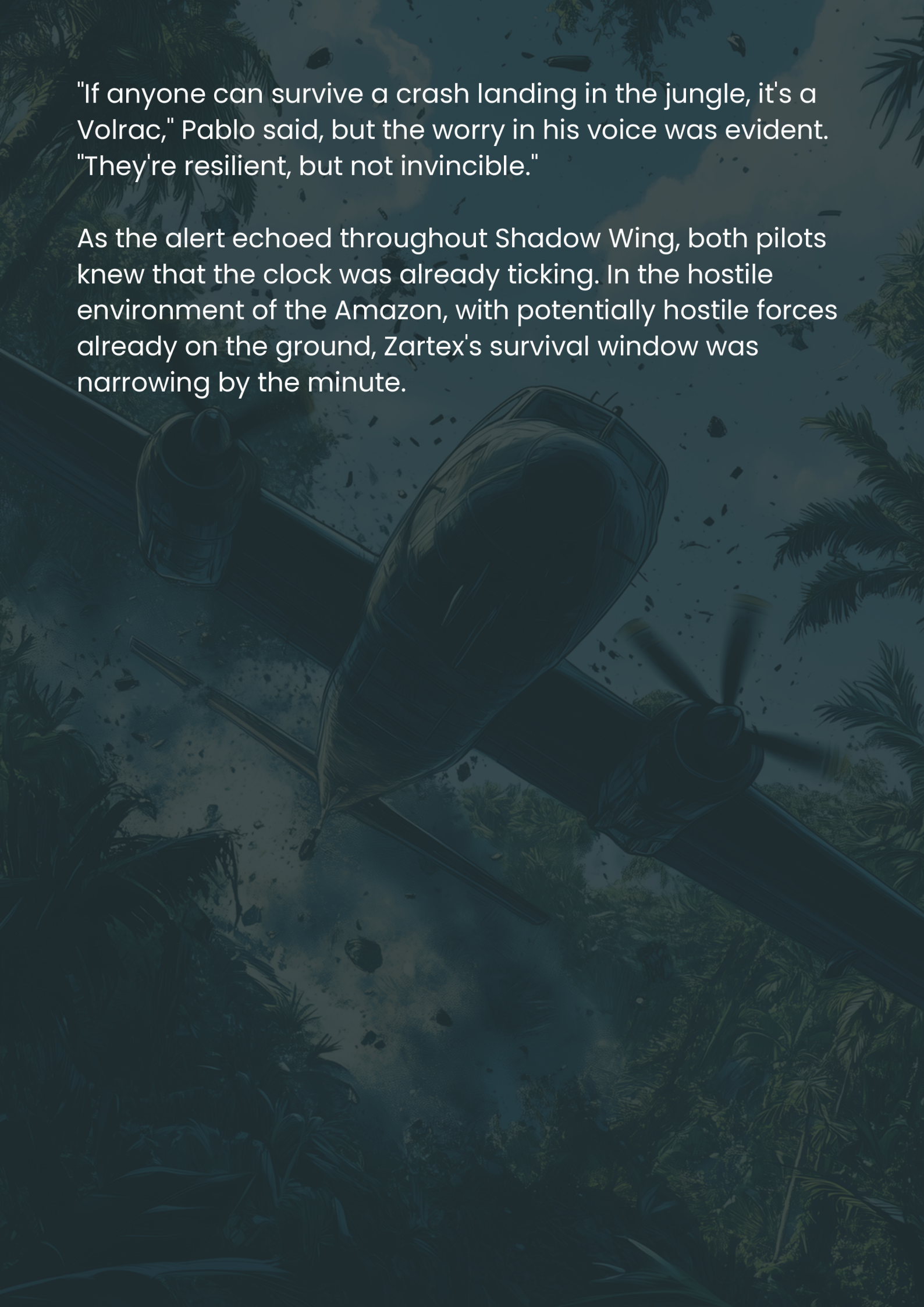
Peter was already plotting potential coordinates based on the last known location. "How the hell did someone get energy weapons in the Amazon? That's advanced Volrac technology."

"Alert the Overseer," Pablo said, fingers flying across his console. "We'll need everyone on this. One of our own is down."

Peter nodded, hitting the emergency alert button that would summon Julia Sharpe and the rest of the team. "I'll start calculating search patterns based on his last known trajectory and fuel reserves."

"If anyone can survive a crash landing in the jungle, it's a Volrac," Pablo said, but the worry in his voice was evident. "They're resilient, but not invincible."

As the alert echoed throughout Shadow Wing, both pilots knew that the clock was already ticking. In the hostile environment of the Amazon, with potentially hostile forces already on the ground, Zartex's survival window was narrowing by the minute.



Chapter 2: Shadows and Signals

Dimitri Zechev hadn't slept in thirty-six hours, but the Bulgarian tech expert showed no signs of fatigue as his fingers flew across multiple keyboards. Three holographic displays surrounded him, each showing different data streams: satellite imagery, communication frequencies, and fragments of Zartex's last transmission.

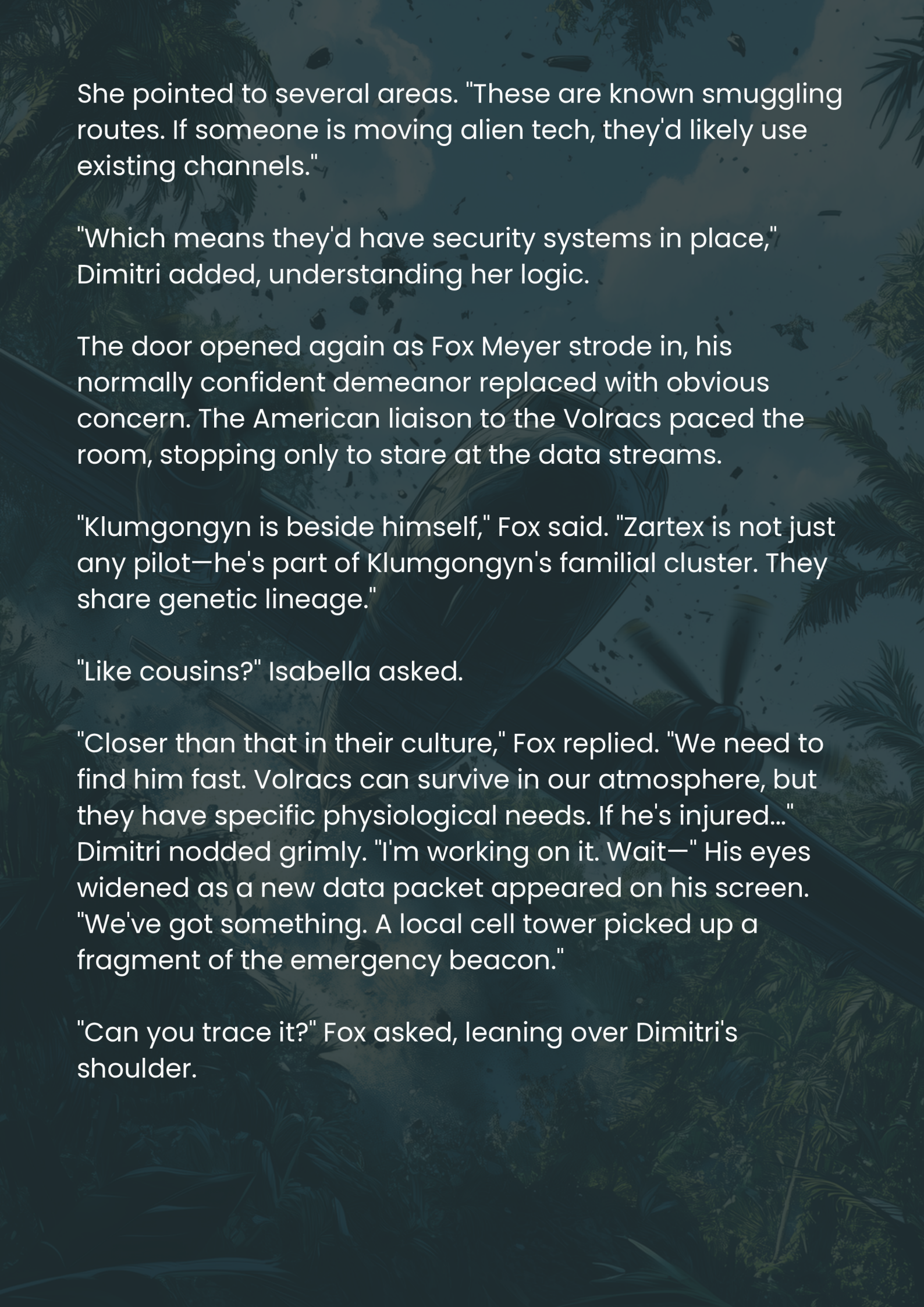
"Come on, come on," he muttered, his accent thickening with frustration. "Give me something to work with."

The door to the analysis chamber slid open as Isabella Moreno entered, carrying two steaming cups of coffee. Her expertise on South American geography and culture had made her the immediate choice to assist with the search.

"Any progress?" she asked, setting one cup beside Dimitri. He grabbed it without looking away from his screens. "The last transmission was fragmented. I've recovered pieces, but crucial location data is missing."

He took a quick sip of coffee. "The energy weapons disrupted not just the craft's systems but the transmission itself. It's not just damaged—it's been scrambled using counter-intelligence protocols."

Isabella moved to one of the displays, studying the topographical map of Ecuador. "This region is particularly challenging. Dense jungle, numerous river systems, and limited infrastructure."

The background is a dark, moody image of a tropical jungle. In the center, a large, dark, metallic object, possibly a crashed aircraft or a piece of alien technology, is partially visible, surrounded by dense foliage and palm trees. The lighting is dim, creating a sense of mystery and danger.

She pointed to several areas. "These are known smuggling routes. If someone is moving alien tech, they'd likely use existing channels."

"Which means they'd have security systems in place," Dimitri added, understanding her logic.

The door opened again as Fox Meyer strode in, his normally confident demeanor replaced with obvious concern. The American liaison to the Volracs paced the room, stopping only to stare at the data streams.

"Klungongyn is beside himself," Fox said. "Zartex is not just any pilot—he's part of Klungongyn's familial cluster. They share genetic lineage."

"Like cousins?" Isabella asked.

"Closer than that in their culture," Fox replied. "We need to find him fast. Volracs can survive in our atmosphere, but they have specific physiological needs. If he's injured..." Dimitri nodded grimly. "I'm working on it. Wait—" His eyes widened as a new data packet appeared on his screen. "We've got something. A local cell tower picked up a fragment of the emergency beacon."

"Can you trace it?" Fox asked, leaning over Dimitri's shoulder.

"Not directly. The signal bounced through multiple towers before reaching our systems. But it gives us a search radius." Dimitri's fingers blurred across the keyboard.

"Approximately 200 square kilometers."

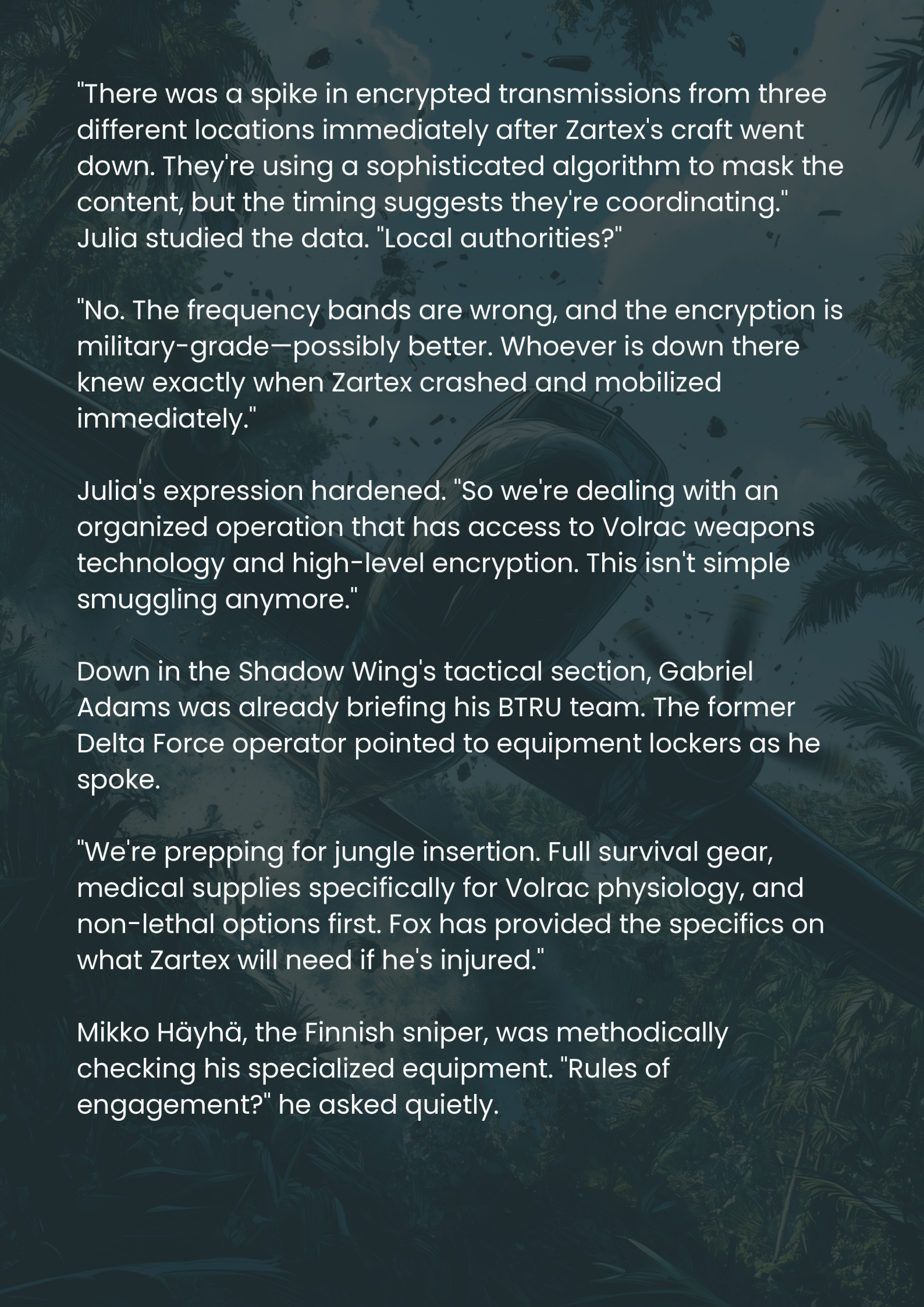
"That's still too large for an effective search," Isabella noted.

"It's something," Dimitri countered. "And there's more—the partial transmission contains an encrypted message. It's using Volrac communication protocols." He looked up at Fox. "I need Klumgongyn to help decrypt this."

Meanwhile, in another section of the Shadow Wing, Mei Huang sat with headphones on, listening to recordings of all communications from the region over the past 24 hours. The Chinese psycholinguist had an uncanny ability to detect patterns and anomalies in speech and data. She suddenly removed her headphones and tapped her console. "Julia, I need you to see this," she said into her comm link.

Minutes later, Overseer Julia Sharpe entered, her British composure masking the urgency she felt. "What have you found, Mei?"

"Local communications show an unusual pattern." Mei pointed to a visualized sound wave on her screen.



"There was a spike in encrypted transmissions from three different locations immediately after Zartex's craft went down. They're using a sophisticated algorithm to mask the content, but the timing suggests they're coordinating." Julia studied the data. "Local authorities?"

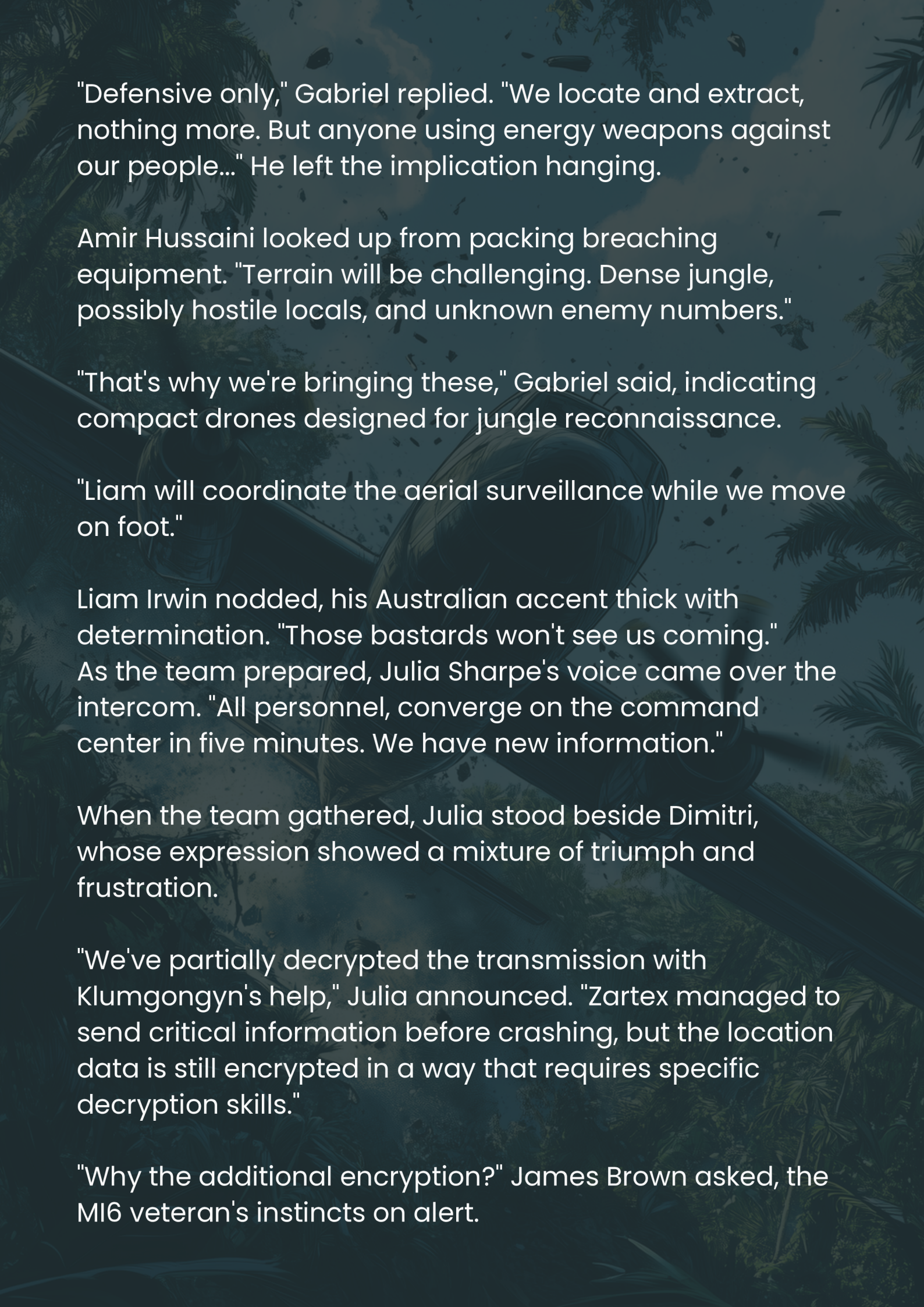
"No. The frequency bands are wrong, and the encryption is military-grade—possibly better. Whoever is down there knew exactly when Zartex crashed and mobilized immediately."

Julia's expression hardened. "So we're dealing with an organized operation that has access to Volrac weapons technology and high-level encryption. This isn't simple smuggling anymore."

Down in the Shadow Wing's tactical section, Gabriel Adams was already briefing his BTRU team. The former Delta Force operator pointed to equipment lockers as he spoke.

"We're prepping for jungle insertion. Full survival gear, medical supplies specifically for Volrac physiology, and non-lethal options first. Fox has provided the specifics on what Zartex will need if he's injured."

Mikko Häyhä, the Finnish sniper, was methodically checking his specialized equipment. "Rules of engagement?" he asked quietly.



"Defensive only," Gabriel replied. "We locate and extract, nothing more. But anyone using energy weapons against our people..." He left the implication hanging.

Amir Hussaini looked up from packing breaching equipment. "Terrain will be challenging. Dense jungle, possibly hostile locals, and unknown enemy numbers."

"That's why we're bringing these," Gabriel said, indicating compact drones designed for jungle reconnaissance.

"Liam will coordinate the aerial surveillance while we move on foot."

Liam Irwin nodded, his Australian accent thick with determination. "Those bastards won't see us coming." As the team prepared, Julia Sharpe's voice came over the intercom. "All personnel, converge on the command center in five minutes. We have new information."

When the team gathered, Julia stood beside Dimitri, whose expression showed a mixture of triumph and frustration.

"We've partially decrypted the transmission with Klumgongyn's help," Julia announced. "Zartex managed to send critical information before crashing, but the location data is still encrypted in a way that requires specific decryption skills."

"Why the additional encryption?" James Brown asked, the MI6 veteran's instincts on alert.

"Protection," Klumgongyn answered, his tall, slender form making him stand out among the humans. The Volrac's large eyes blinked with emotion. "Zartex used a personal encryption protocol that only a trained analyst with specific forensic skills could untangle. It was designed to prevent the wrong people from finding him first if the transmission was intercepted."

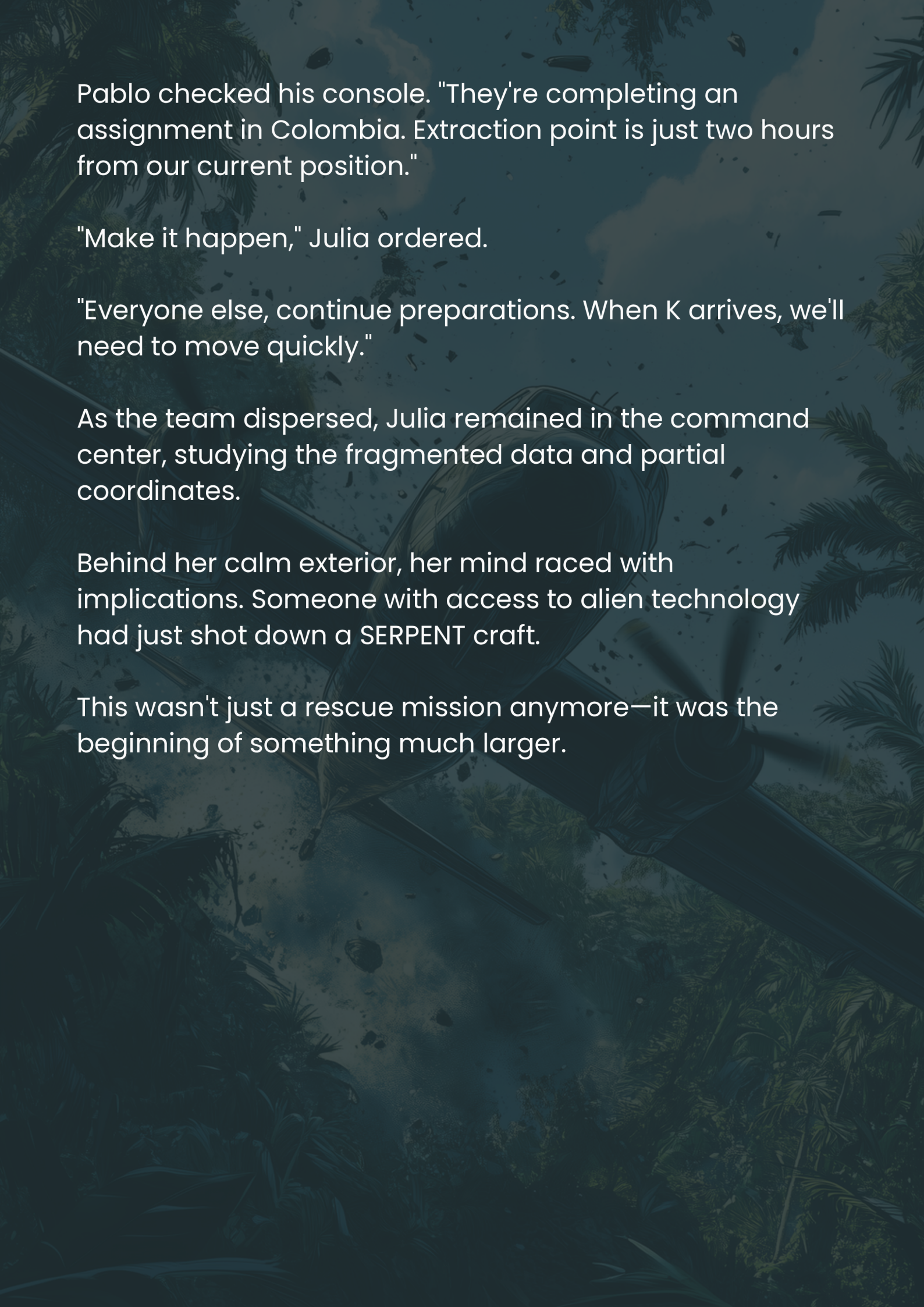
"Which means we need Special Agent K," Julia concluded. "Their OSINT and forensic skills are exactly what this situation demands."

Cassandra Laurent, already working her diplomatic connections, looked up from her secure tablet. "I've contacted our assets in Ecuador. The government is officially denying any unusual activity, but my source indicates they've detected an unauthorized aircraft going down and are mobilizing a search team."

"Then we're in a race," Julia said grimly. "If Ecuadorian authorities find Zartex first..."

"They'd discover a crashed aircraft with alien technology and a non-human pilot," Fox finished. "The diplomatic and security implications would be catastrophic."

"Not to mention what would happen to Zartex," Klumgongyn added, distress evident in his voice. Julia turned to Pablo and Peter. "How soon can we have Special Agent K on board?"



Pablo checked his console. "They're completing an assignment in Colombia. Extraction point is just two hours from our current position."

"Make it happen," Julia ordered.

"Everyone else, continue preparations. When K arrives, we'll need to move quickly."

As the team dispersed, Julia remained in the command center, studying the fragmented data and partial coordinates.

Behind her calm exterior, her mind raced with implications. Someone with access to alien technology had just shot down a SERPENT craft.

This wasn't just a rescue mission anymore—it was the beginning of something much larger.

Chapter 3: Race Against Time

The steady drum of rain against the bulletproof windows of Shadow Wing created a rhythmic backdrop as the SERPENT team intensified their efforts. Three hours had passed since Zartex's crash, and each minute decreased the Volrac pilot's chances of survival—especially if he was injured.

Klungongyn stood before a holographic display, explaining Volrac physiology to Gabriel Adams and his BTRU team. The alien's normally fluid movements were stiff with tension.

"Our respiratory system can process Earth's atmosphere, but with drastically reduced efficiency compared to Varnyr's air," Klungongyn explained. "Under normal circumstances, this is merely uncomfortable. But with injuries..." He gestured to a diagram of Volrac lungs. "Fluid accumulation becomes increasingly likely after four hours."

"What about temperature regulation?" Liam asked, his years of survival training immediately focusing on practical concerns.

"The Ecuadorian rainforest's humidity presents challenges," Klungongyn replied. "Volracs regulate body temperature through specialized glands along our extremities. In high humidity, these glands work overtime and can eventually fail."

"Timeframe?" Gabriel asked bluntly.

"Without medical intervention, twelve hours maximum before severe symptoms begin," Klumgongyn said. "The emergency pack aboard his craft contains stabilizing compounds, but only if he reached it after the crash."

Across the cabin, Dimitri slammed his hand against his workstation, causing several heads to turn. "These encryption layers are unlike anything I've seen before," he growled. "Zartex combined Volrac algorithms with something else... something I can't identify."

Mei joined him, studying the patterns on his screen. "The structure resembles linguistic encryption," she noted. "It's not just mathematical—it's semantic."

"That's why we need K," Julia interjected, entering the command center with James Brown beside her. "Special Agent K has experience with these hybrid encryption methods."

James's face was grim as he shared his update. "Our intelligence contacts confirm Ecuadorian special forces have been mobilized. They're using the cover story of drug trafficking, but the deployment pattern suggests they know exactly what they're looking for."

"How?" Fox demanded. "How could they possibly know about Zartex's craft?"

"Because they were waiting for it," Cassandra responded, looking up from a diplomatic cable she'd been studying. "My contact in Quito says this operation was planned days ago. Someone tipped them off."

The implication hung heavily in the air. A security breach within SERPENT was almost unthinkable.

"Or they were monitoring the same thing Zartex was investigating," Isabella suggested. "If alien technology is being smuggled through Ecuador, local authorities might be aware—or compromised."

Julia's expression remained composed, but her eyes hardened. "Dimitri, what's your progress on the fragmentary transmission?"

"I've isolated several location markers," he replied, pulling up a map on the main display. "We have part of a latitude coordinate and references to a landmark, but it's still not enough for a precise location."

"And the energy signatures from the weapons that downed him?" Julia pressed.

"Definitely Volrac technology," Klumgongyn confirmed, studying the spectral analysis. "Level three disruptors, primarily designed to disable electronic systems rather than destroy."

"Which means they wanted the craft intact," Gabriel concluded. "They're after the technology, not necessarily the pilot."

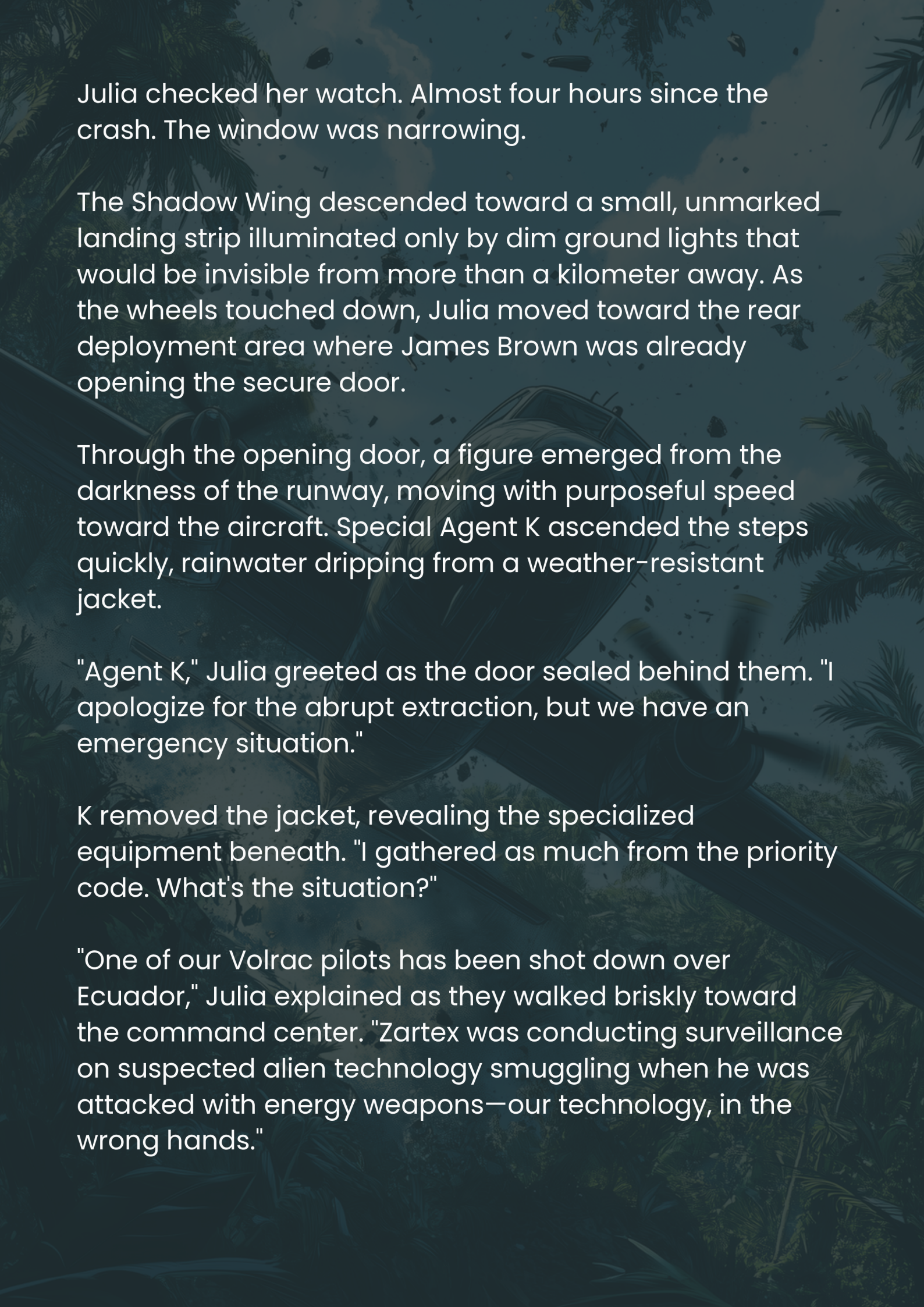
"That might buy Zartex some time," Fox added hopefully. Peter's voice came over the intercom from the cockpit. "Overseer, we're approaching the extraction coordinates for Special Agent K. ETA three minutes."

"Everyone, prepare for briefing," Julia ordered. "Dimitri, compile all the data we have. Isabella, prepare geographical and cultural context for the region. Mei, your analysis of the communication patterns. Fox and Klumgongyn, everything on Volrac survival needs. BTRU, have extraction options ready."

As the team hurried to their tasks, Julia turned to a private screen, reviewing Special Agent K's most recent assignment in Colombia. The mission had been a success—uncovering evidence of corporate espionage with potential national security implications. But that suddenly seemed trivial compared to the current crisis.

The aircraft dipped slightly as Pablo maneuvered through a patch of turbulence. Outside, the night had fully settled over the mountainous border between Colombia and Ecuador. Somewhere in the darkness below, Zartex was fighting for survival while unknown forces closed in on his position.

"One minute to extraction point," Pablo announced.



Julia checked her watch. Almost four hours since the crash. The window was narrowing.

The Shadow Wing descended toward a small, unmarked landing strip illuminated only by dim ground lights that would be invisible from more than a kilometer away. As the wheels touched down, Julia moved toward the rear deployment area where James Brown was already opening the secure door.

Through the opening door, a figure emerged from the darkness of the runway, moving with purposeful speed toward the aircraft. Special Agent K ascended the steps quickly, rainwater dripping from a weather-resistant jacket.

"Agent K," Julia greeted as the door sealed behind them. "I apologize for the abrupt extraction, but we have an emergency situation."

K removed the jacket, revealing the specialized equipment beneath. "I gathered as much from the priority code. What's the situation?"

"One of our Volrac pilots has been shot down over Ecuador," Julia explained as they walked briskly toward the command center. "Zartex was conducting surveillance on suspected alien technology smuggling when he was attacked with energy weapons—our technology, in the wrong hands."



K's expression grew serious. "Casualties?"

"Unknown. We lost contact after the initial mayday. He managed to transmit an encrypted message with his location, but it's fragmented and uses a hybrid encryption protocol."

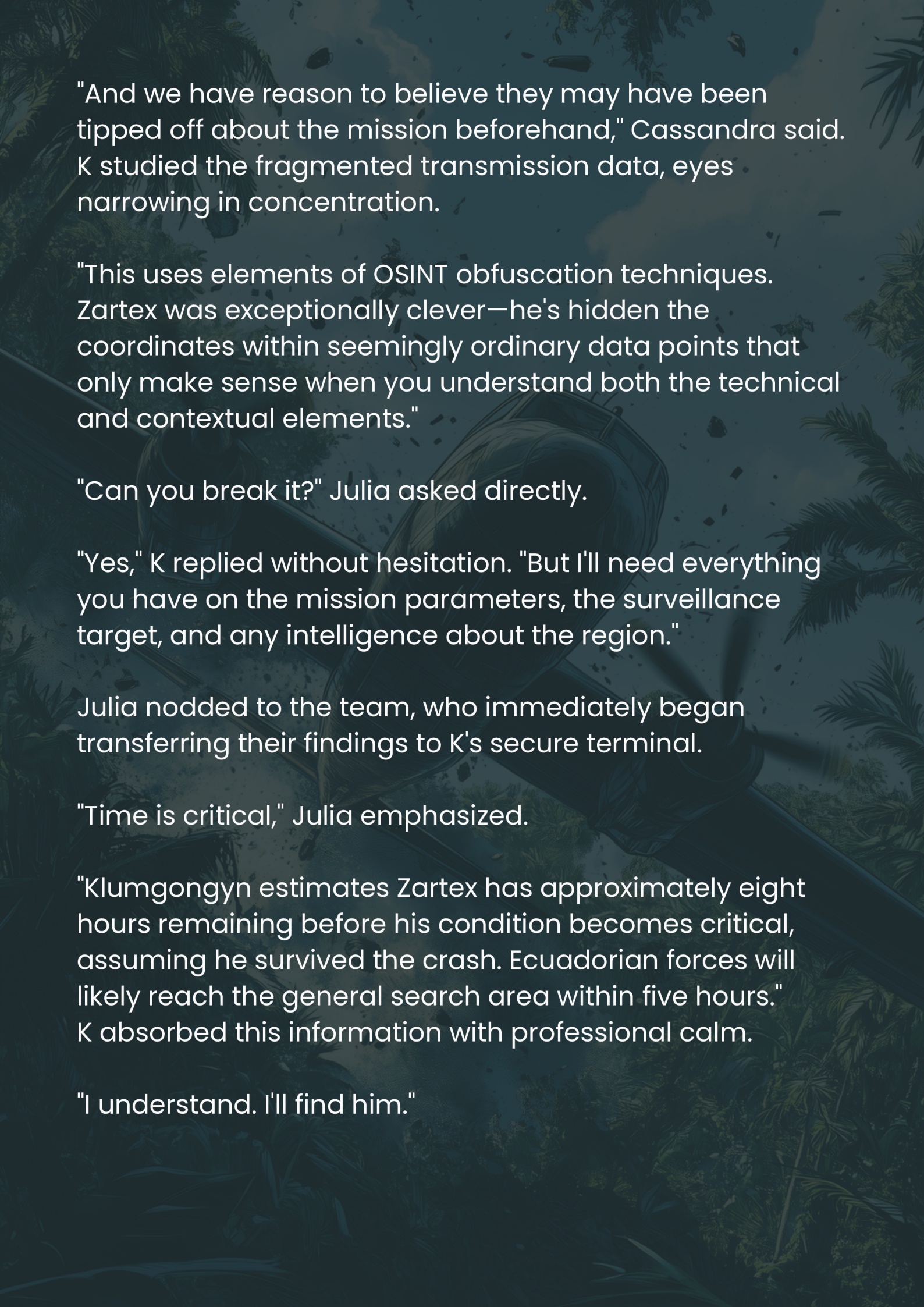
As they entered the command center, the entire team looked up. Despite the diversity of backgrounds and specialties, there was a unified sense of purpose in the room.

"The message contains elements only someone with your specific skills can decode," Julia continued. "Dimitri and Mei have made progress, but critical components remain locked."

K nodded, immediately moving toward Dimitri's workstation. "Show me what you have."

As Dimitri explained the encryption challenges, the main screen displayed a map of Ecuador with a large highlighted area—the current search radius based on their limited information.

"Ecuadorian forces are moving into the region," James added. "Their official cover is anti-narcotics operations, but they're deploying electronic warfare units and advanced search technology."



"And we have reason to believe they may have been tipped off about the mission beforehand," Cassandra said. K studied the fragmented transmission data, eyes narrowing in concentration.

"This uses elements of OSINT obfuscation techniques. Zartex was exceptionally clever—he's hidden the coordinates within seemingly ordinary data points that only make sense when you understand both the technical and contextual elements."

"Can you break it?" Julia asked directly.

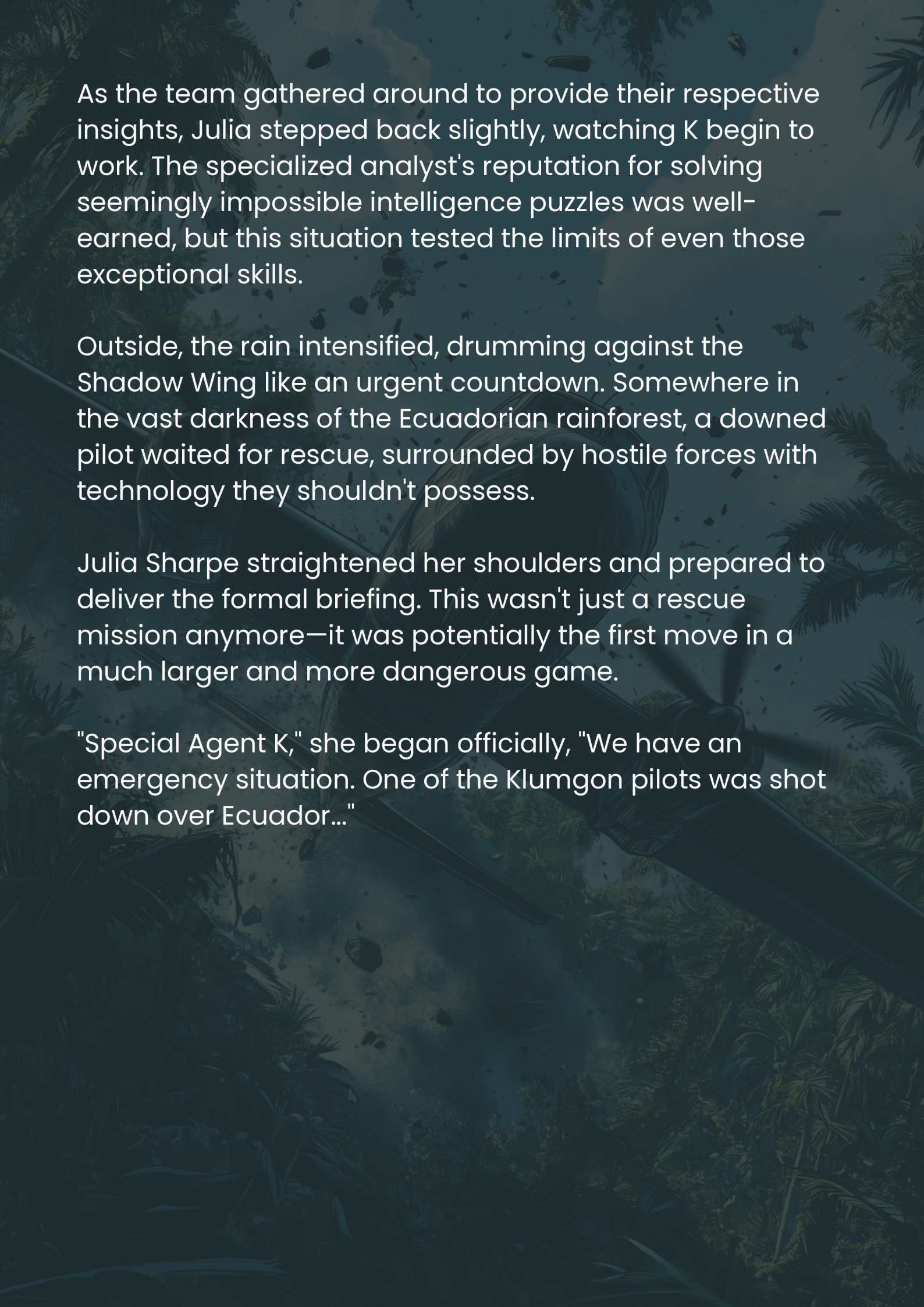
"Yes," K replied without hesitation. "But I'll need everything you have on the mission parameters, the surveillance target, and any intelligence about the region."

Julia nodded to the team, who immediately began transferring their findings to K's secure terminal.

"Time is critical," Julia emphasized.

"Klungongyn estimates Zartex has approximately eight hours remaining before his condition becomes critical, assuming he survived the crash. Ecuadorian forces will likely reach the general search area within five hours." K absorbed this information with professional calm.

"I understand. I'll find him."



As the team gathered around to provide their respective insights, Julia stepped back slightly, watching K begin to work. The specialized analyst's reputation for solving seemingly impossible intelligence puzzles was well-earned, but this situation tested the limits of even those exceptional skills.

Outside, the rain intensified, drumming against the Shadow Wing like an urgent countdown. Somewhere in the vast darkness of the Ecuadorian rainforest, a downed pilot waited for rescue, surrounded by hostile forces with technology they shouldn't possess.

Julia Sharpe straightened her shoulders and prepared to deliver the formal briefing. This wasn't just a rescue mission anymore—it was potentially the first move in a much larger and more dangerous game.

"Special Agent K," she began officially, "We have an emergency situation. One of the Klumgon pilots was shot down over Ecuador..."

Briefing

Greetings, Special Agent.

We have an emergency situation, one of the Klumgon pilots was shot down over Ecuador. We received an emergency transmission, but the radio was unable to transmit the last location in full. However, we were able to get a partial transmission from a local cellphone tower. Don't ask me how, but some friends pulled strings and here we are.

It's up to you to decode the message and find out where the pilot crashed. Once you have the answer, we'll dispatch a rescue and recovery unit, before the local authorities can get to him. Below you'll find the emergency call between air traffic control and the vessel. As well as the encrypted message we pulled from the tower.

As always, Special Agent, the contract is yours, if you choose to accept

Materials

emergency-transmission-encoded-text.txt
mayday-message.txt

Answer Instruction

Use the answer to unlock the flagfile, this will reward you with your badge.

Submit your findings in the following format:

-0.000000,-00.000000,00

Flagfile

Be advised, the flagfile is an encrypted ZIP. Make sure your OS supports the ZIP format. Ensure the password contains no hidden characters or formatting.

PS: Don't forget to claim your Coins and XP, by posting your card in the #card-brag channel in Discord.

<https://discord.hacktoria.com>

Write-Up

There is an attached file called a write-up, this will give you the answer in case you get stuck.

Acknowledgements

This challenge was made by Frank Diepmaat.