

HACKTIVISM

LOCATE THE
NEXT SITE FOR
A GRUESOME
ATTACK
BEFORE IT'S
TOO LATE



GAS ATTACK

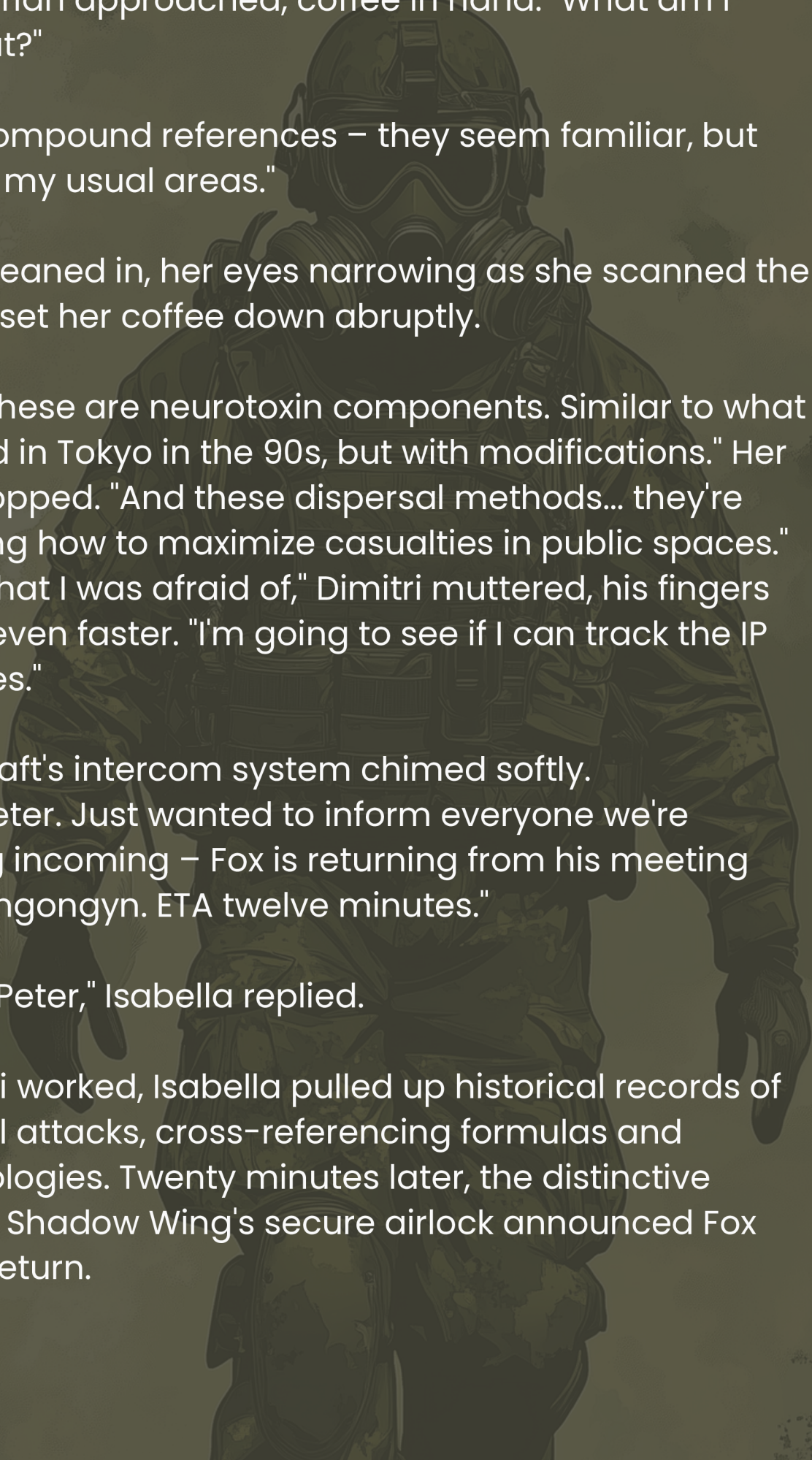
Chapter 1: First Signs

The soft blue glow of multiple monitors cast eerie shadows across Dimitri Zechev's face as his fingers danced across the keyboard. Three empty energy drink cans formed a small pyramid at the edge of his workstation aboard Shadow Wing. Outside the aircraft's windows, darkness had settled over the Atlantic Ocean as they maintained a holding pattern at 45,000 feet.

"You're going to rot your brain with those things," Isabella Moreno said, glancing at the energy drinks as she passed behind him.

Dimitri smirked without looking away from his screens. "My brain is already beyond saving, but at least it's efficient." At 3:17 AM, most of the SERPENT team was asleep in their quarters, but Dimitri's work as Red Team lead meant his schedule rarely aligned with normal hours. The dark web waited for no one, and somewhere in its depths, someone always revealed something they shouldn't.

Tonight was proving particularly interesting. Dimitri had been methodically tracking communications in a series of encrypted forums when a pattern caught his attention. References to specific chemical compounds, delivery mechanisms, and dispersal techniques. Nothing overtly alarming on its own, but the constellation of topics formed a troubling picture.



"Isabella," he called out, "can you look at something?"
The historian approached, coffee in hand. "What am I looking at?"

"These compound references – they seem familiar, but not from my usual areas."

Isabella leaned in, her eyes narrowing as she scanned the text. She set her coffee down abruptly.

"Dimitri, these are neurotoxin components. Similar to what was used in Tokyo in the 90s, but with modifications." Her voice dropped. "And these dispersal methods... they're discussing how to maximize casualties in public spaces." "That's what I was afraid of," Dimitri muttered, his fingers moving even faster. "I'm going to see if I can track the IP addresses."

The aircraft's intercom system chimed softly.

"This is Peter. Just wanted to inform everyone we're receiving incoming – Fox is returning from his meeting with Klumgongyn. ETA twelve minutes."

"Thanks, Peter," Isabella replied.

As Dimitri worked, Isabella pulled up historical records of chemical attacks, cross-referencing formulas and methodologies. Twenty minutes later, the distinctive sound of Shadow Wing's secure airlock announced Fox Meyer's return.

Fox appeared in the doorway of the command center, still removing his jacket. Despite the late hour, his eyes were alert.

"How was our extraterrestrial friend?" Isabella asked.

"Concerned," Fox replied, his usually easy demeanor notably subdued. "Klungongyn shared some troubling intelligence. The Volracs have been monitoring communications suggesting Earth-based extremists are developing new aerosol-based toxins. Something about our species being particularly vulnerable to certain compounds."

Dimitri looked up sharply. "That's... coincidental timing."
"Why?" Fox approached the workstation.

"Because I've just found something." Dimitri turned his main monitor toward them. "A hidden forum where several users are discussing chemical formulas and what they call 'field tests.' I think we're looking at plans for an attack."

On the screen, a string of encrypted messages flashed, each more disturbing than the last.

"Formula optimized for maximum dispersion in urban environment." "Test location criteria: population density, limited evacuation routes, symbolic value." "Timing calculations complete. Effect will be... spectacular."
Fox's expression hardened. "We need to wake Julia."

Chapter 2: Connecting Threads

Mei Huang sat cross-legged on her chair, eyes closed in concentration. The conversations Dimitri had uncovered were displayed on her screens, broken down into linguistic components, structural patterns, and psychological indicators. After several minutes of silence, she opened her eyes.

"We have at least three distinct authors," she announced to the assembled team. "Based on syntax patterns and idiomatic expressions, I'd place the primary coordinator as Eastern European, likely Serbian or possibly Bulgarian. The second contributor shows Middle Eastern linguistic markers, while the third uses phrasing consistent with someone from Western Africa who learned English academically rather than conversationally."

Overseer Julia Sharpe nodded, her sharp green eyes taking in the information display. Shadow Wing had been redirected to a holding pattern over the Mediterranean, giving them better positioning for whatever might come next.

"Their psychological profiles?" Julia asked.

"The primary coordinator displays classic narcissistic tendencies – note the repeated self-congratulation and references to historical attacks as 'amateur efforts.' The others are more concerning – they show no emotional language whatsoever. Clinical, detached, possibly sociopathic."



Gabriel Adams, the BTRU team leader, studied the tactical map. "Do we have any geographical indicators for the target?"

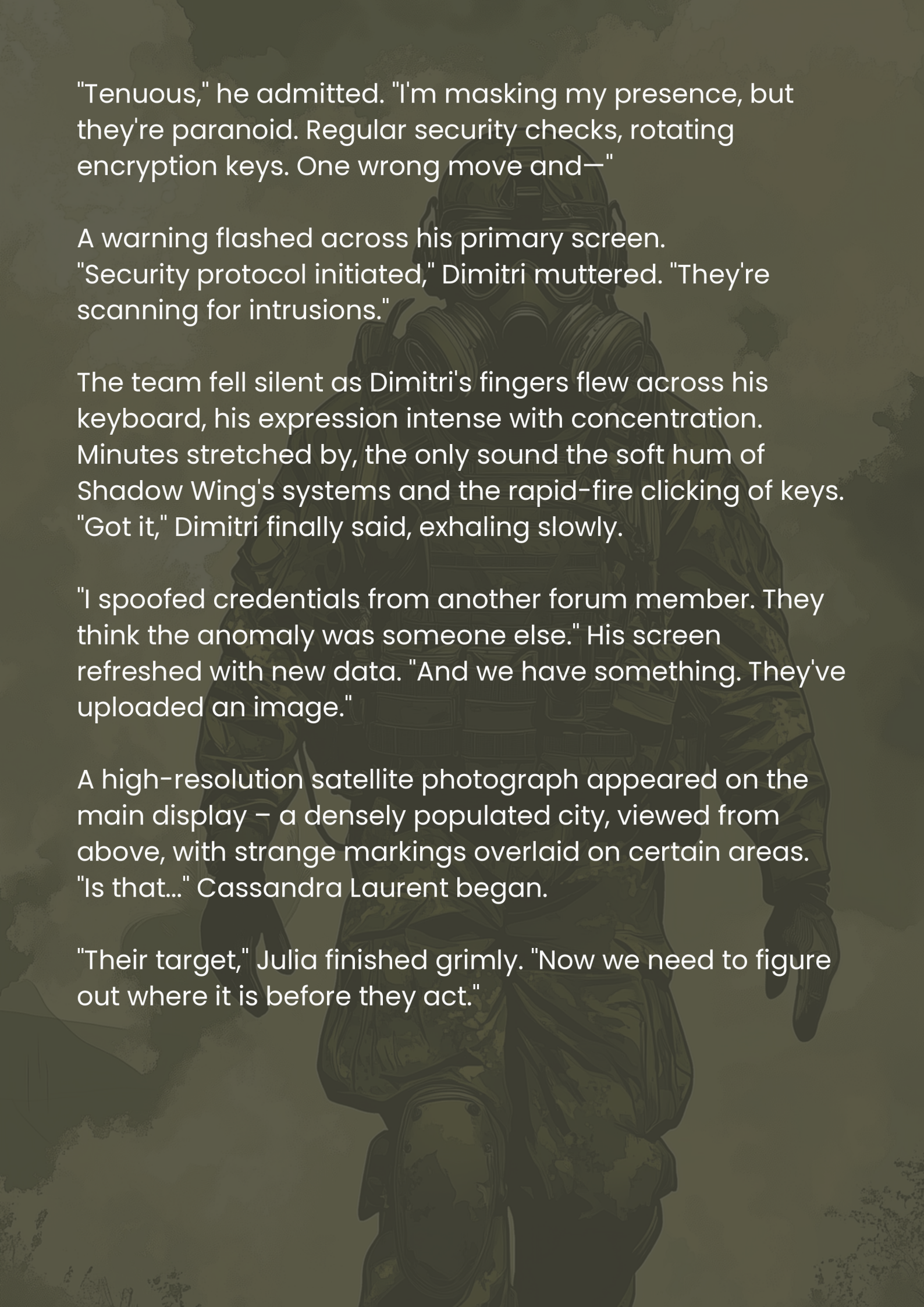
"Not yet," Dimitri replied, his eyes bloodshot but intensely focused. "I'm maintaining access to their forum, but they're careful. They communicate through ephemeral channels, and they're using sophisticated encryption." Isabella raised her hand, drawing attention to her station. "I've been analyzing their references to previous attacks. They specifically mention Tokyo, but also Halabja and an obscure incident in Matsumoto that preceded Tokyo. They're students of chemical warfare history, building on previous methods."

Julia frowned. "So they're not just dangerous – they're knowledgeable."

"Very," Isabella confirmed. "And they seem to be aware of countermeasures developed since those attacks. They're discussing modifications to defeat standard detection and treatment protocols."

Fox Meyer, who had been reviewing Klumgongyn's information, looked up. "According to what the Volracs have observed, there's been unusual procurement of certain chemical precursors through black market channels. Nothing that would trigger automatic alerts, but in combination..."

"We need more," Julia decided. "Dimitri, how secure is your access to their communications?"



"Tenuous," he admitted. "I'm masking my presence, but they're paranoid. Regular security checks, rotating encryption keys. One wrong move and—"

A warning flashed across his primary screen. "Security protocol initiated," Dimitri muttered. "They're scanning for intrusions."

The team fell silent as Dimitri's fingers flew across his keyboard, his expression intense with concentration. Minutes stretched by, the only sound the soft hum of Shadow Wing's systems and the rapid-fire clicking of keys. "Got it," Dimitri finally said, exhaling slowly.

"I spoofed credentials from another forum member. They think the anomaly was someone else." His screen refreshed with new data. "And we have something. They've uploaded an image."

A high-resolution satellite photograph appeared on the main display – a densely populated city, viewed from above, with strange markings overlaid on certain areas. "Is that..." Cassandra Laurent began.

"Their target," Julia finished grimly. "Now we need to figure out where it is before they act."

Chapter 3: Zero Hour

Shadow Wing cut through the clouds, banking sharply as Pablo Iglesias guided the aircraft toward Southern Europe. In the command center, the satellite image dominated the main display, enhanced and analyzed from every angle.

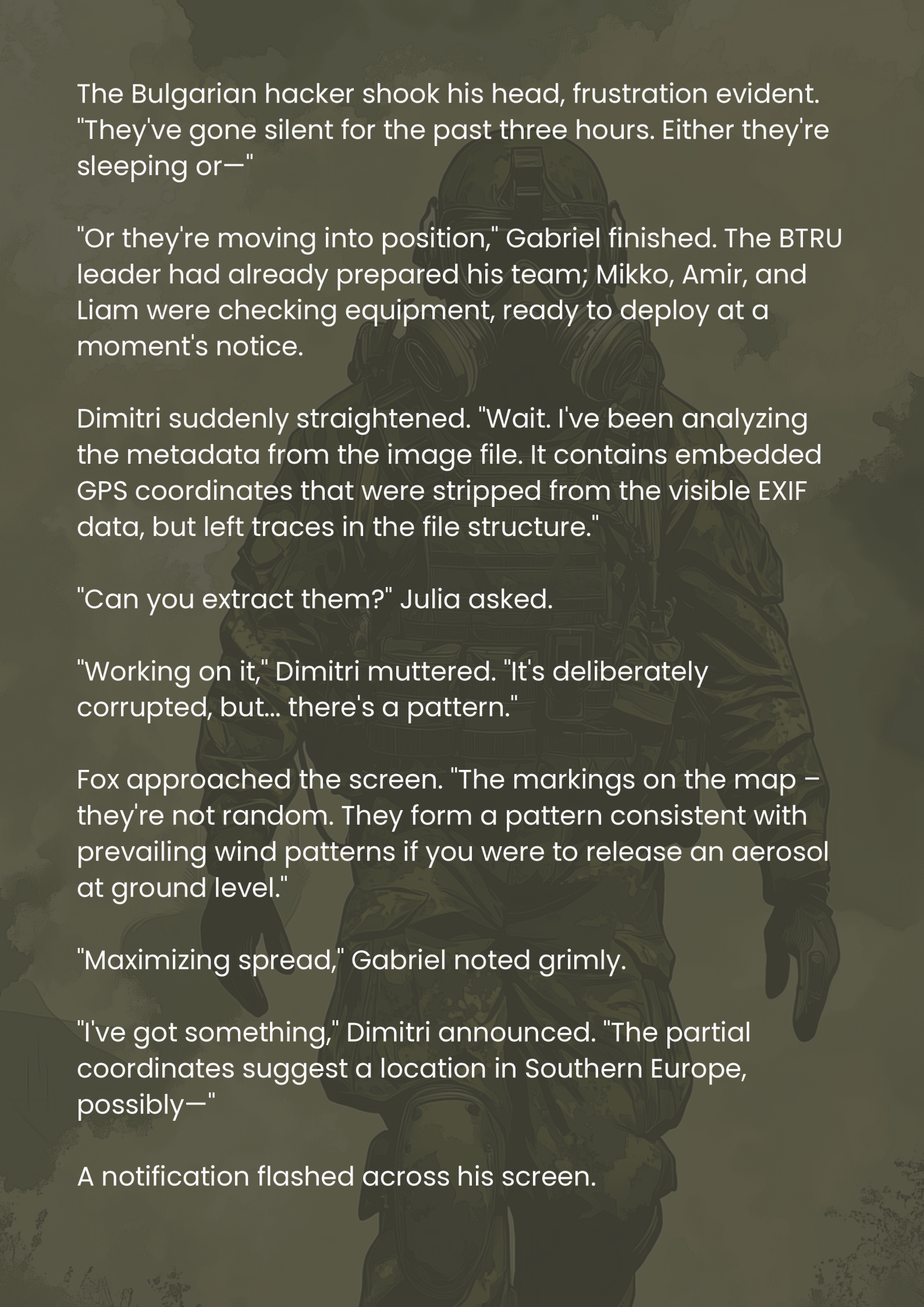
"The architecture suggests Mediterranean or possibly Eastern European," Isabella noted, "but that covers dozens of potential cities."

James Brown, freshly returned from activating his network of contacts, adjusted his immaculate tie. "My sources confirm unusual movement of chemical precursors through ports in the Black Sea region. Nothing definitive, but it narrows our focus."

"The atmospheric conditions in the image are consistent with coastal regions," Mei added. "Note the particular quality of light and cloud formations."

Cassandra Laurent ended a secure call and joined the discussion. "EUROPOL is on alert. They've activated chemical detection protocols at major transportation hubs, but without knowing where to concentrate resources..."

"We need more," Julia stated firmly. "Dimitri, anything new from the forum?"



The Bulgarian hacker shook his head, frustration evident. "They've gone silent for the past three hours. Either they're sleeping or—"

"Or they're moving into position," Gabriel finished. The BTRU leader had already prepared his team; Mikko, Amir, and Liam were checking equipment, ready to deploy at a moment's notice.

Dimitri suddenly straightened. "Wait. I've been analyzing the metadata from the image file. It contains embedded GPS coordinates that were stripped from the visible EXIF data, but left traces in the file structure."

"Can you extract them?" Julia asked.

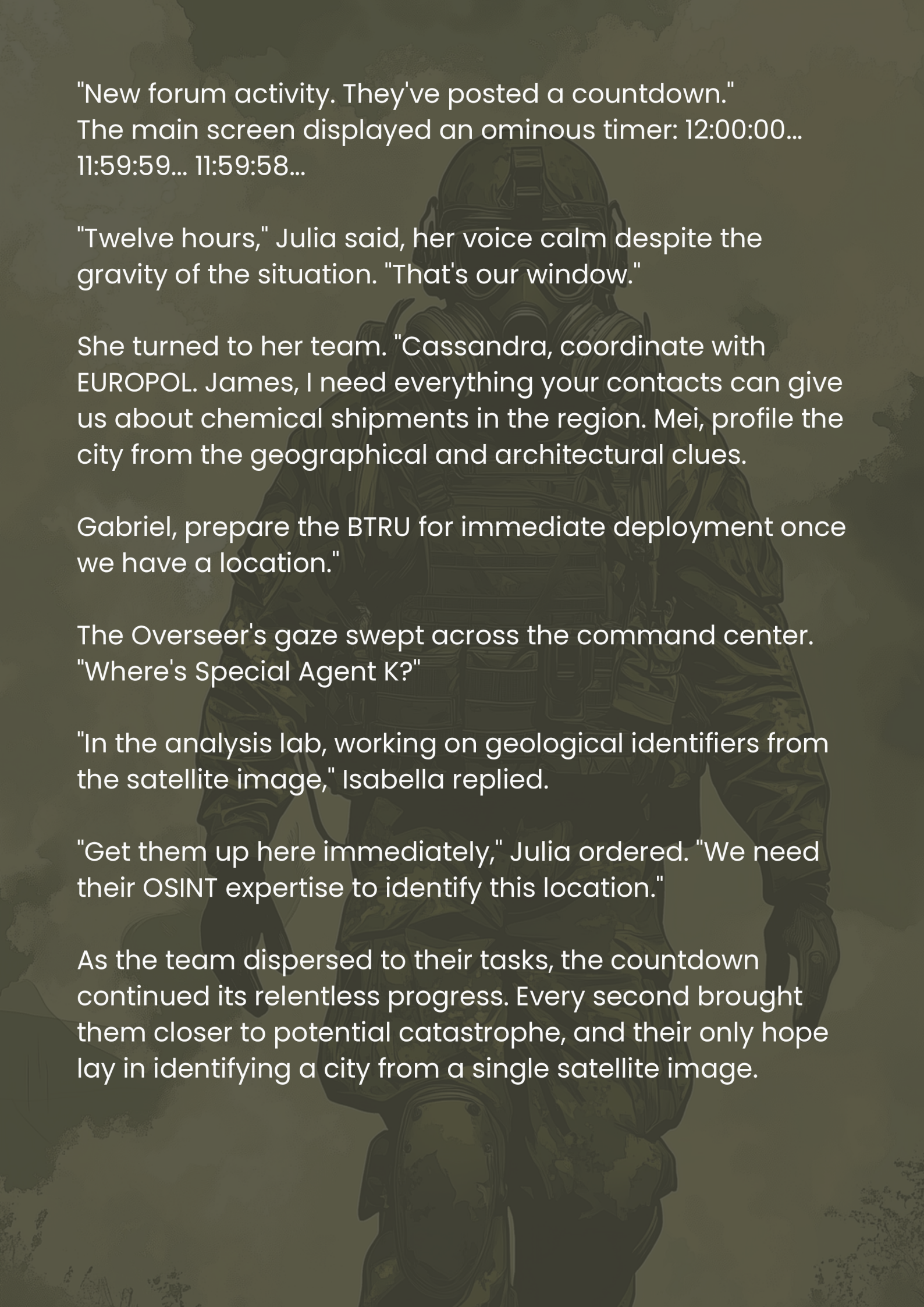
"Working on it," Dimitri muttered. "It's deliberately corrupted, but... there's a pattern."

Fox approached the screen. "The markings on the map – they're not random. They form a pattern consistent with prevailing wind patterns if you were to release an aerosol at ground level."

"Maximizing spread," Gabriel noted grimly.

"I've got something," Dimitri announced. "The partial coordinates suggest a location in Southern Europe, possibly—"

A notification flashed across his screen.



"New forum activity. They've posted a countdown."
The main screen displayed an ominous timer: 12:00:00...
11:59:59... 11:59:58...

"Twelve hours," Julia said, her voice calm despite the gravity of the situation. "That's our window."

She turned to her team. "Cassandra, coordinate with EUROPOL. James, I need everything your contacts can give us about chemical shipments in the region. Mei, profile the city from the geographical and architectural clues.

Gabriel, prepare the BTRU for immediate deployment once we have a location."

The Overseer's gaze swept across the command center. "Where's Special Agent K?"

"In the analysis lab, working on geological identifiers from the satellite image," Isabella replied.

"Get them up here immediately," Julia ordered. "We need their OSINT expertise to identify this location."

As the team dispersed to their tasks, the countdown continued its relentless progress. Every second brought them closer to potential catastrophe, and their only hope lay in identifying a city from a single satellite image.

Peter Jansen's voice came over the intercom. "Course correction complete. We're positioned to reach any location in Southern Europe within ninety minutes."

Julia nodded. "Thank you, Peter." She turned as footsteps approached the command center.

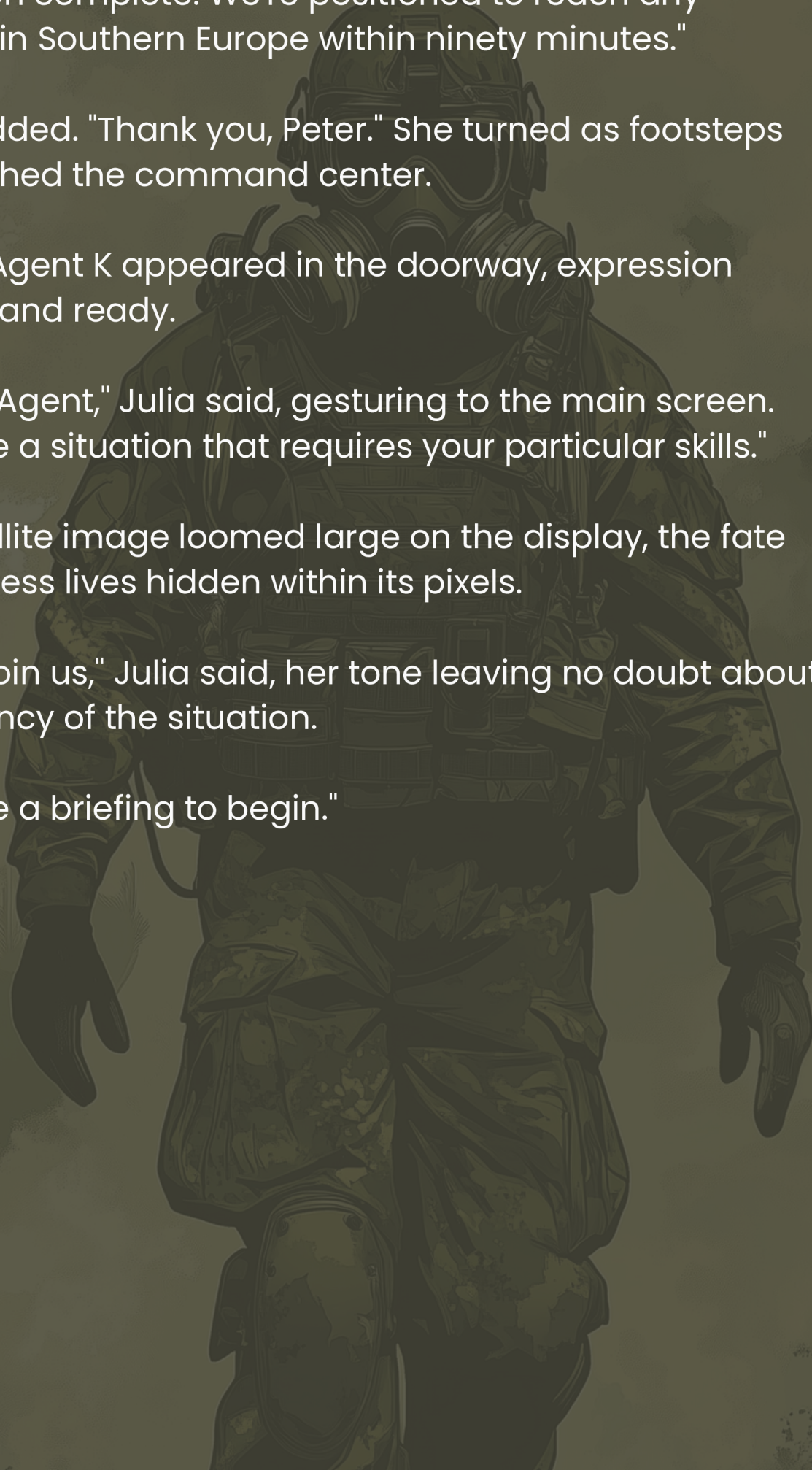
Special Agent K appeared in the doorway, expression focused and ready.

"Special Agent," Julia said, gesturing to the main screen. "We have a situation that requires your particular skills."

The satellite image loomed large on the display, the fate of countless lives hidden within its pixels.

"Please join us," Julia said, her tone leaving no doubt about the urgency of the situation.

"We have a briefing to begin."



Briefing

Greetings, Special Agent.

We have an urgent and very grim scenario on our hands. About 20 minutes ago, we received word from one of our red teams, that they've uncovered plans on the dark-web to test a new neuro-toxic gas on an undisclosed city.

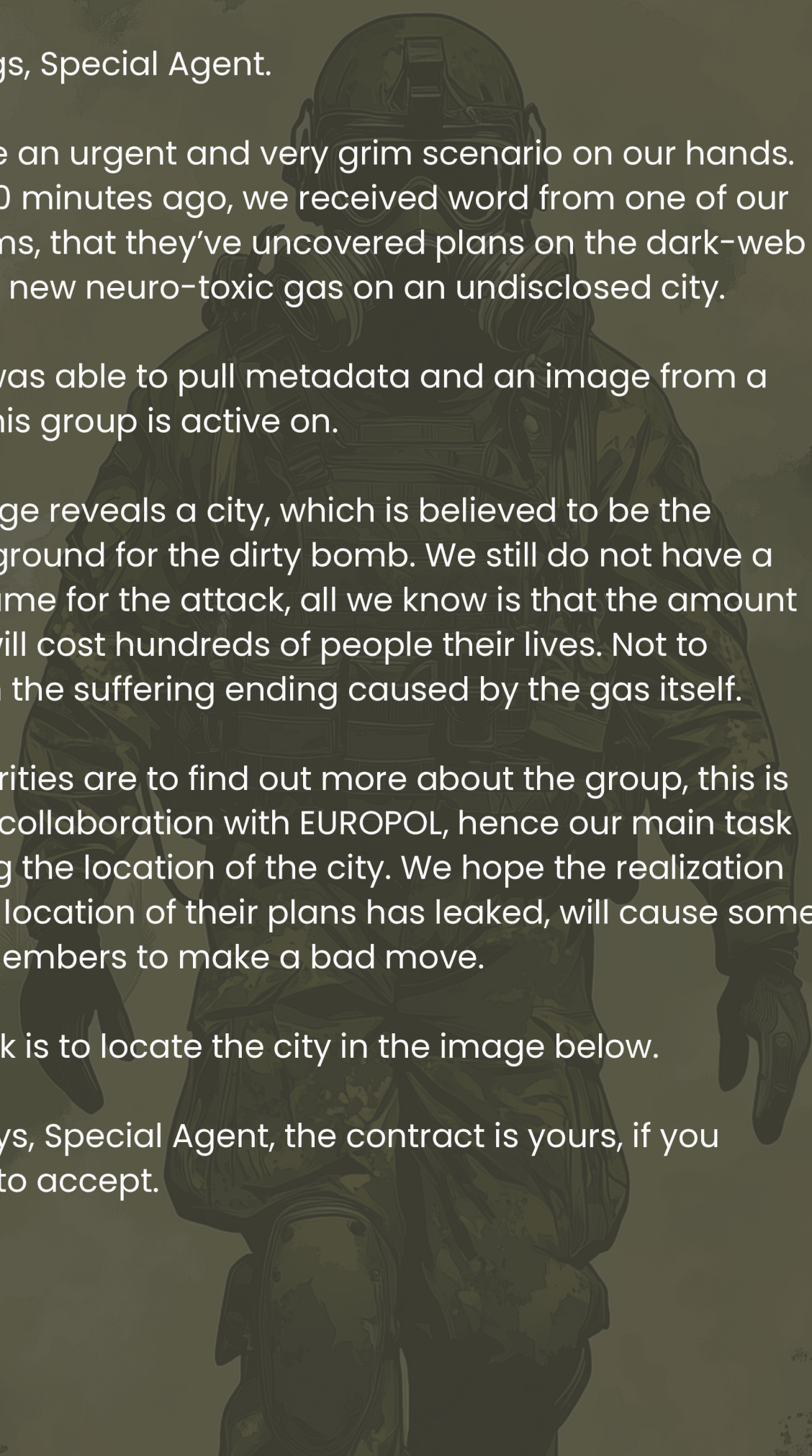
Dimitri was able to pull metadata and an image from a forum this group is active on.

The image reveals a city, which is believed to be the testing ground for the dirty bomb. We still do not have a time-frame for the attack, all we know is that the amount of gas will cost hundreds of people their lives. Not to mention the suffering ending caused by the gas itself.

Our priorities are to find out more about the group, this is done in collaboration with EUROPOL, hence our main task is finding the location of the city. We hope the realization that the location of their plans has leaked, will cause some of the members to make a bad move.

Your task is to locate the city in the image below.

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



Materials

starting-image-gas-attack.png

Answer Instruction

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

Construct the answer using the following format in lowercase: country-city

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.