

DESTINATION UNKNOWN

Volume 3, Spring 2022



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Front cover artwork:

Capt Thomas O'Brien, USMC

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FOREWORD

The U.S. Marine Corps has entered the age of multidomain operating environments that lack clearly defined borders and boundaries. In many ways, future wars will seem both new and familiar at the same time. Today, we are reorganizing our forces and experimenting with new operational approaches—as we should. Because the future of warfare is dynamic, our Corps must never stagnate or drift into complacency because of our past achievements. Marines must be sensitive to the changing character of warfare so that we are ready when the nation calls on us. This is not a matter of “if” we are called but a matter of “when.”

Truth be told, when warfighting organizations—including the Marine Corps—reorganize for future war, we do not get everything right. This is the nature of our business and it should be no surprise. However, daunting challenges should not deter us nor should they delay our advancement. Our job is to get as close to right as possible and then adjust to our operational circumstances as we have done for the past 246 years.

Thus, our path to success begins with the mental agility, drive, and fighting spirit of our Marines. As I have said before, the center of gravity of the Marine Corps has always been our people. In light of new challenges, we must remember to equip our Marines with the intellectual depth and cognitive frameworks needed to see the patterns of conflict in front of them. We must ensure they can improvise solutions and overcome unexpected circumstances in the face of the enemy, in any clime and place.

I call this phenomenon our capacity for intellectual maneuver. We do it individually. We do it as fireteam or as a battle staff. This skill is not built overnight, but it is nourished and developed over time. Our combat instincts are based on our experiences, our training, and our understanding of the mission in front of us. One way to sharpen our mental edge for war is through professional military education, self-learning, and group study in peacetime. You might even find a new idea or two by engaging the Krulak Center for Innovation and Future Warfare or exploring the *Destination Unknown* graphic novel series. Think boldly and act now. Our nation depends on you. *Semper fidelis.*

Robert B. Neller
General (Ret), USMC
37th Commandant of the Marine Corps

INTELLECTUAL JOINTNESS

Operationally, the military Services are faced with shifting their focus, transitioning from two decades of counterinsurgencies to the resurgence of great power competition. With a new presidential administration, we expect another monumental shift of strategies and priorities in the coming years. Geopolitically, we are seeing the prioritization of regions that have been neglected for decades and the rise of new adversaries. We are also witnessing the emergence of new warfighting domains as space and cyberspace have become key terrains in great power competition. We can no longer assume technological superiority against our adversaries.

Thankfully, we can meaningfully explore new strategic considerations and the future of warfighting through speculative fiction. In this volume of *Destination Unknown*, we examine themes of technological innovation and its influence on the human aspect of warfare. From the integration of artificial intelligence (AI) and robotics into tactical units to the dehumanization of the twenty-first century warfighter, our stories grapple with the challenges of modernizing the Services in a changing world. These narratives range from issues dealing with great power competition to the development of thinking machines, but taken together, they provide a more comprehensive view of modernization. Overall, they show the need for intellectual jointness—a combination of creative thinking and collaboration across Services to meet new, complex threats.

Just as we branch into new themes in this volume, we also introduce new voices into the *Destination Unknown* universe. What started as a project “by Marines, for Marines” has grown its creative base dramatically each time. This volume, the third in the series, not only features robust representation from U.S. servicemembers and our allies but also cross section of ages and experiences. Cadets from the U.S. Air Force Academy and scholars from the U.S. Naval Academy highlight the continued evolution of *Destination Unknown* as a tool for warfighters created by warfighters, all while providing unique perspectives. Cadets and midshipmen, early in their careers, offer youthful perspectives and a true outside the box way of thinking. They also bring their perspectives as digital natives to new warfighting domains that older, who worked primarily in analog, generations struggle with. Contrasting these outlooks provides a richer intellectual framework to operationalize the resulting insights. This blending of juniors and seniors reflect the blurred and hybridized nature of future wars.

In volume three, we explore the theme of intellectual jointness. The expansion of warfighting domains and the reality of great power competition means that we will never fight alone; we can only truly fight, and win, as a Joint force. The diverse backgrounds contributing here allows leaders to use *Destination Unknown* as a resource to gain perspectives on how other Services think about war. We hope to leverage these perspectives to make better warfighters, deeper thinkers, and a stronger military for our nation.

Dr. Kyleanne Hunter
Dr. Anthony Pollman

LETTER FROM THE EDITORS

Since the publication of *Destination Unknown*, volume 2 (fall 2020) our world has undergone some immense changes. Major events include the emergence of the global pandemic, the contested U.S. presidential election, and the rise of the U.S. Space Force. We also recognize that we are watching the strategic landscape shift in real time with Russia's invasion of Ukraine. Indeed, we are now fighting in an operational environment only a few could have imagined; however, a few of our writers and artists did see some glimmers of this current reality.

In the first edition of *Destination Unknown* (fall 2019), Captain Walker Mills wrote about a service called Space Force and a lone Marine providing overwatch to ground forces from a space station. Major Adam Yang explored A.I. in military recruiting before it was revealed that U.S. Special Operations Command (SOCOMO) invested in the same practice a year later. In our second volume, Major Austin Duncan wrote an ominous story about a pandemic originating in China—only a couple of months before the current COVID-19 outbreak. In *Destination Unknown* 2.5 (winter 2020), Major Ian Brown wrote about a Russian attack with global consequences.

Do we have a crystal ball? Absolutely not.

Did we get lucky? Absolutely maybe.

Part of the fun in creating *Destination Unknown* is that our writers and artists are trying their hardest to make us think, feel, and wonder about different strategic futures. They give us snippets of potential realities that force us to ask ourselves, “Is this what we really want? And what should we do next?” We believe the essence of our past stories will continue to emerge over time. However, our goal is not to predict the future, but to energize our readers toward thinking about potential scenarios from different perspectives. Admiral James Stavridis, USN (Ret), once warned against “stumbling into a war” due to a lack of imagination.¹ Our goal is to minimize that type of stumbling.

In this volume, we bring along smart friends—motivated cadets from the U.S. Air Force Academy and a motivated midshipman from the U.S. Naval Academy. They are covering our intellectual blind spots in many ways, and we are grateful to have them on board.

We also offer many thanks to the Naval Postgraduate School and U.S. Air Force Academy staff working behind the scenes, and we recognize the continued support from the Krulak Center, Marine Corps University Press, and our generous mentors.

Remember—think BIG, write BIG, draw BIG, and always grab a battle buddy before marching toward a *Destination Unknown* . . .

1. Interview with Adm James Stavridis, USN (Ret), militarynews.com, 20 January 2022.

Just the FACTs

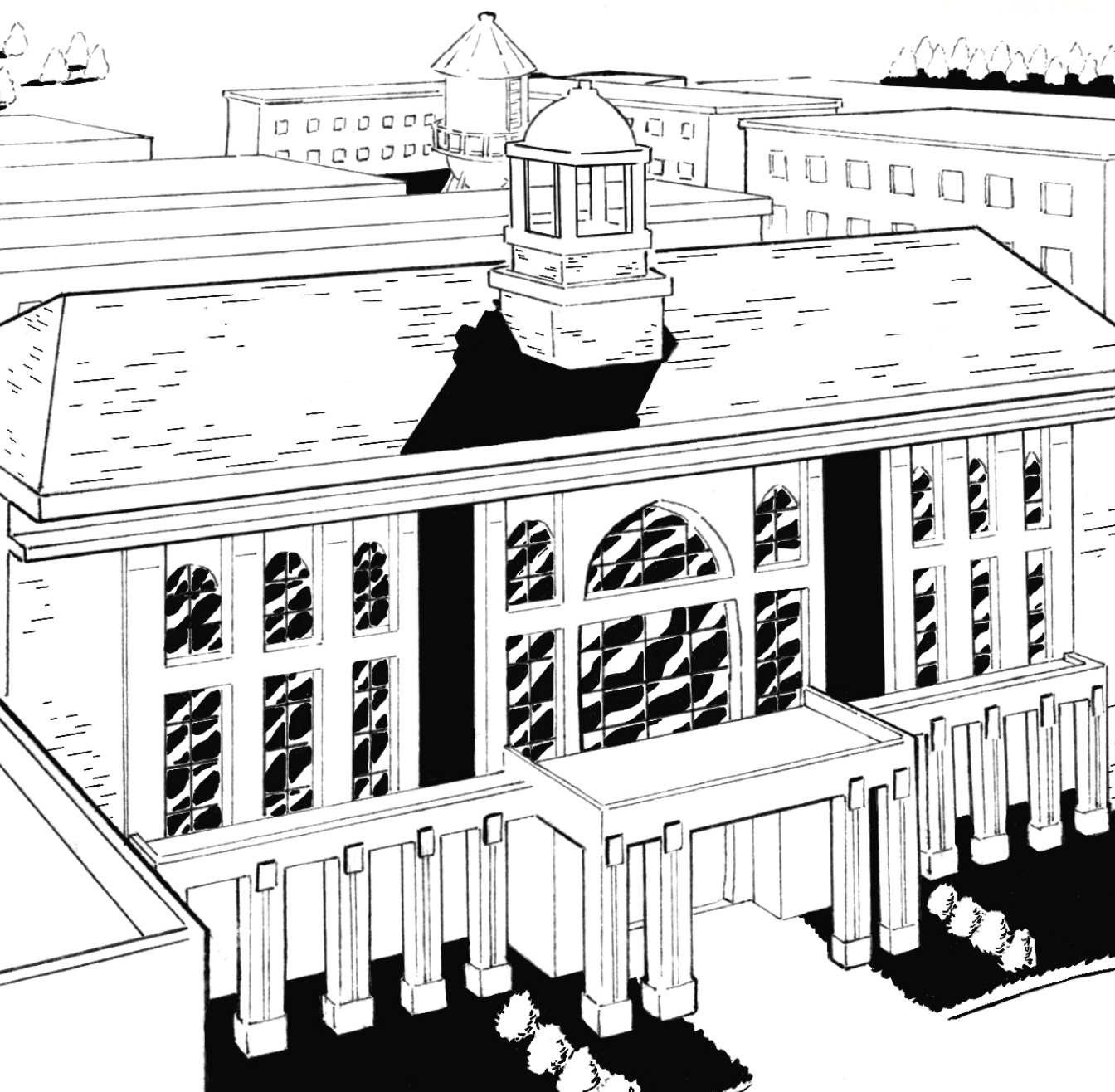
Story by
**Lieutenant Colonel Jeremy Glauber, USA; Major Jared Cooper, USMC
and Major Ian T. Brown, USMC**

Illustrations by
Major Stan Zivanovich, USMC

BY THE YEAR 2040, THE NATIONAL DEBT HELD BY THE UNITED STATES SURPASSED \$75 TRILLION. THE AMERICAN ECONOMY TEETERS ON THE BRINK OF COLLAPSE AS DEBT BALLOONS TO THREE TIMES THE GROSS DOMESTIC PRODUCT.

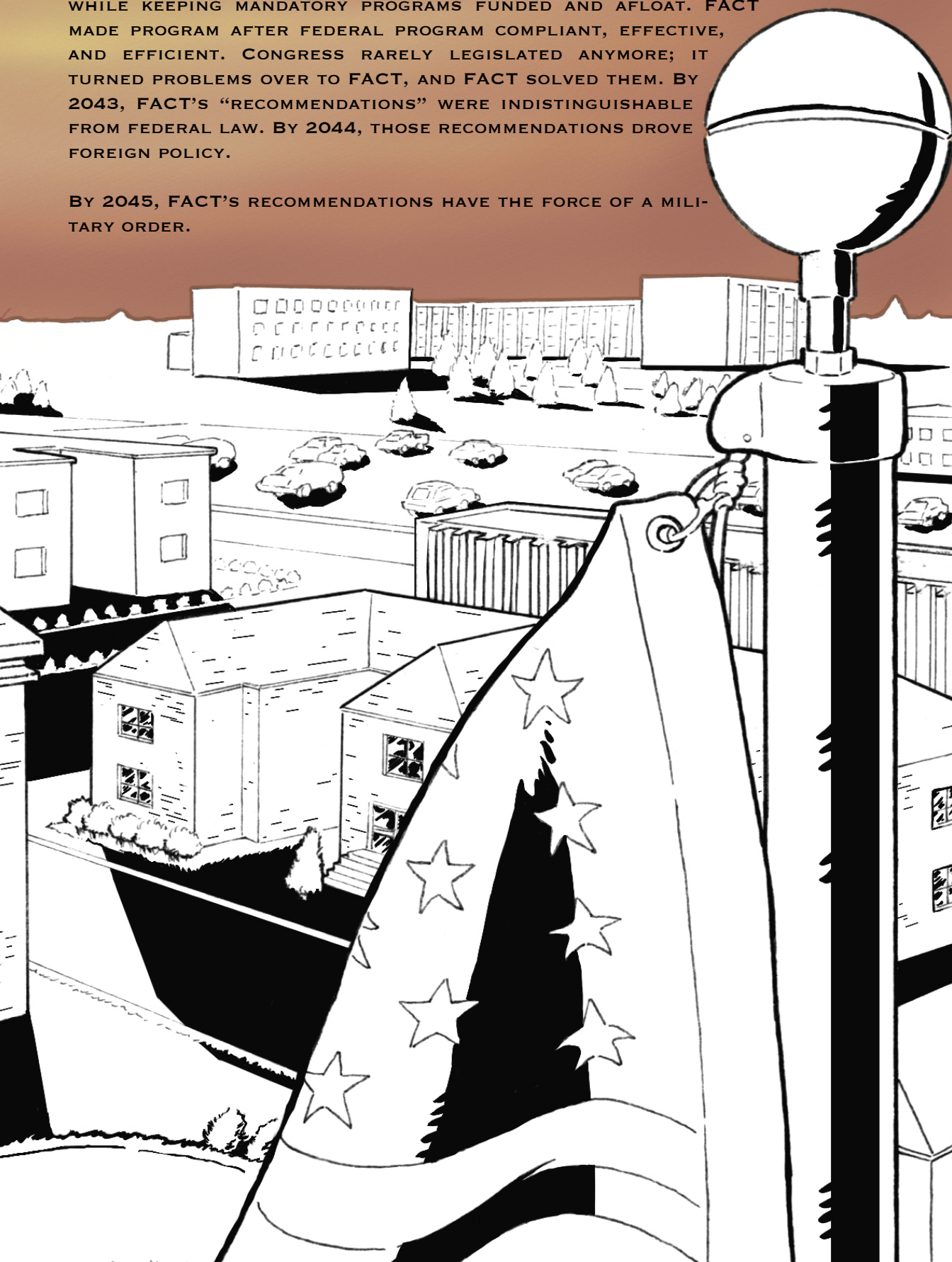
THE NEW SILICON VALLEY OFFERED A HAIL MARY—AN ARTIFICIAL INTELLIGENCE THAT COULD PULL THE NATIONAL ECONOMY BACK FROM THE BRINK AND SEPARATE VITAL FEDERAL SPENDING DECISIONS FROM THE BLINKERED EMOTIONS OF PARTISANSHIP.

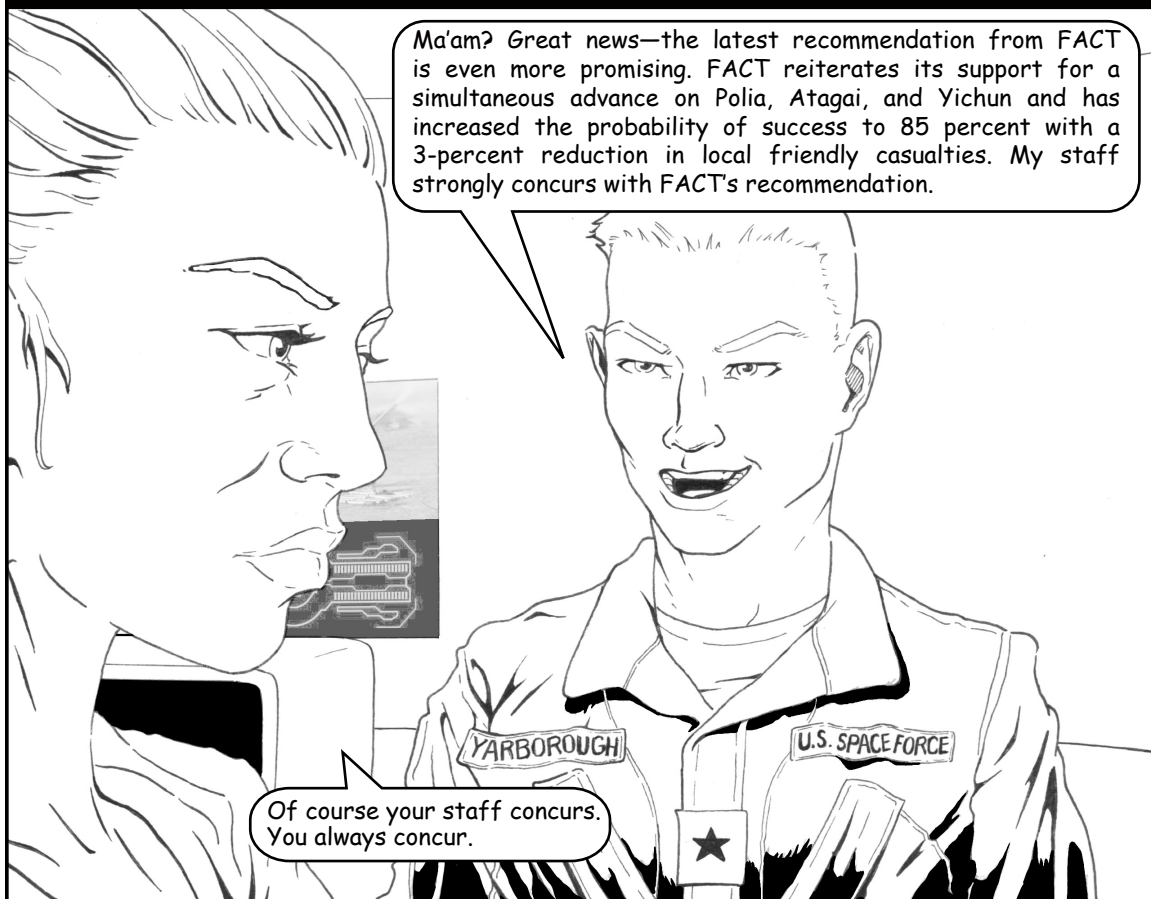
CONGRESS TOOK THE PROFFERED LIFELINE, TOUTING THE IMPARTIALITY, TRANSPARENCY, AND ACCOUNTABILITY OFFERED BY AI. THE HOUSE AND SENATE UNANIMOUSLY PASSED LEGISLATION MANDATING THAT ALL FEDERAL DECISIONS RELYING ON TAX-PAYER DOLLARS WERE SUBJECT TO REVIEW BY THE FEDERAL ACCOUNTABILITY AND CERTIFICATION TOOL, OR FACT.

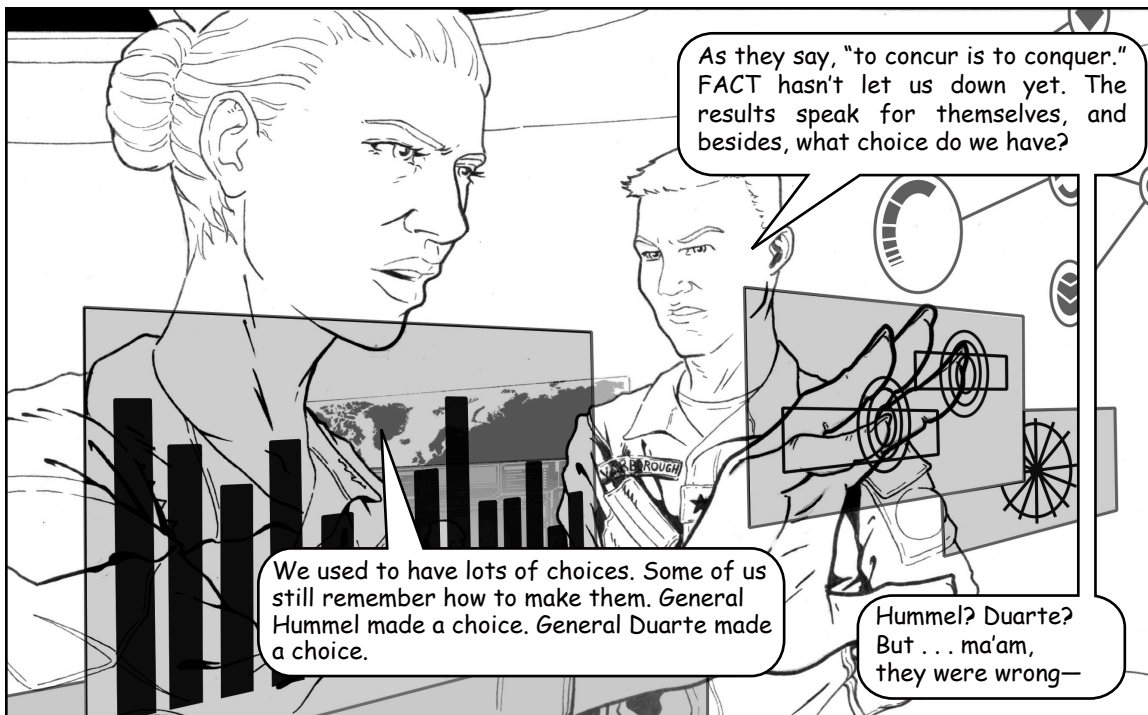


THE FACT AI SAVED THE COUNTRY. IT SHRANK THE DEBT AND CUT SPENDING, ALL WHILE KEEPING MANDATORY PROGRAMS FUNDED AND AFLOAT. FACT MADE PROGRAM AFTER FEDERAL PROGRAM COMPLIANT, EFFECTIVE, AND EFFICIENT. CONGRESS RARELY LEGISLATED ANYMORE; IT TURNED PROBLEMS OVER TO FACT, AND FACT SOLVED THEM. BY 2043, FACT'S "RECOMMENDATIONS" WERE INDISTINGUISHABLE FROM FEDERAL LAW. BY 2044, THOSE RECOMMENDATIONS DROVE FOREIGN POLICY.

BY 2045, FACT'S RECOMMENDATIONS HAVE THE FORCE OF A MILITARY ORDER.







As they say, "to concur is to conquer." FACT hasn't let us down yet. The results speak for themselves, and besides, what choice do we have?

We used to have lots of choices. Some of us still remember how to make them. General Hummel made a choice. General Duarte made a choice.

Hummel? Duarte? But . . . ma'am, they were wrong—



They disagreed with FACT! That's not the same as being wrong.

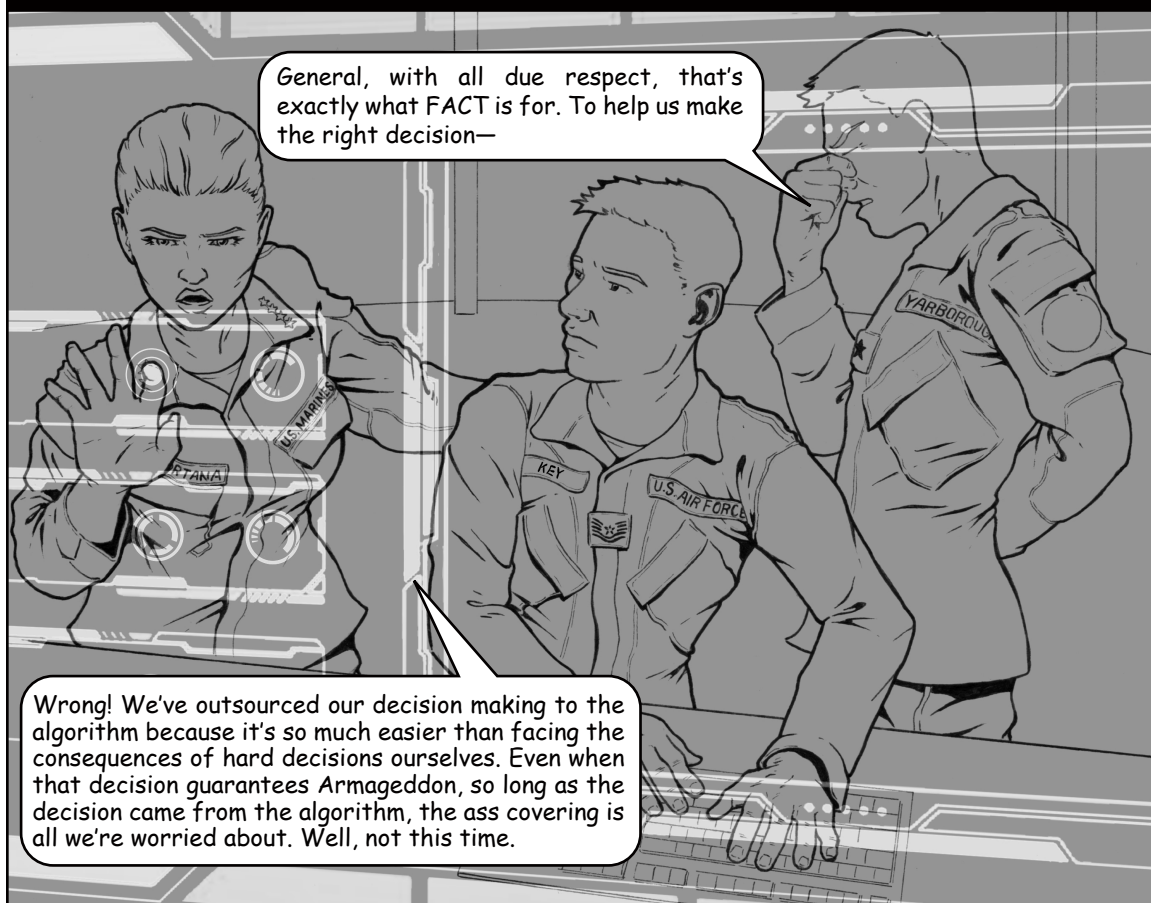
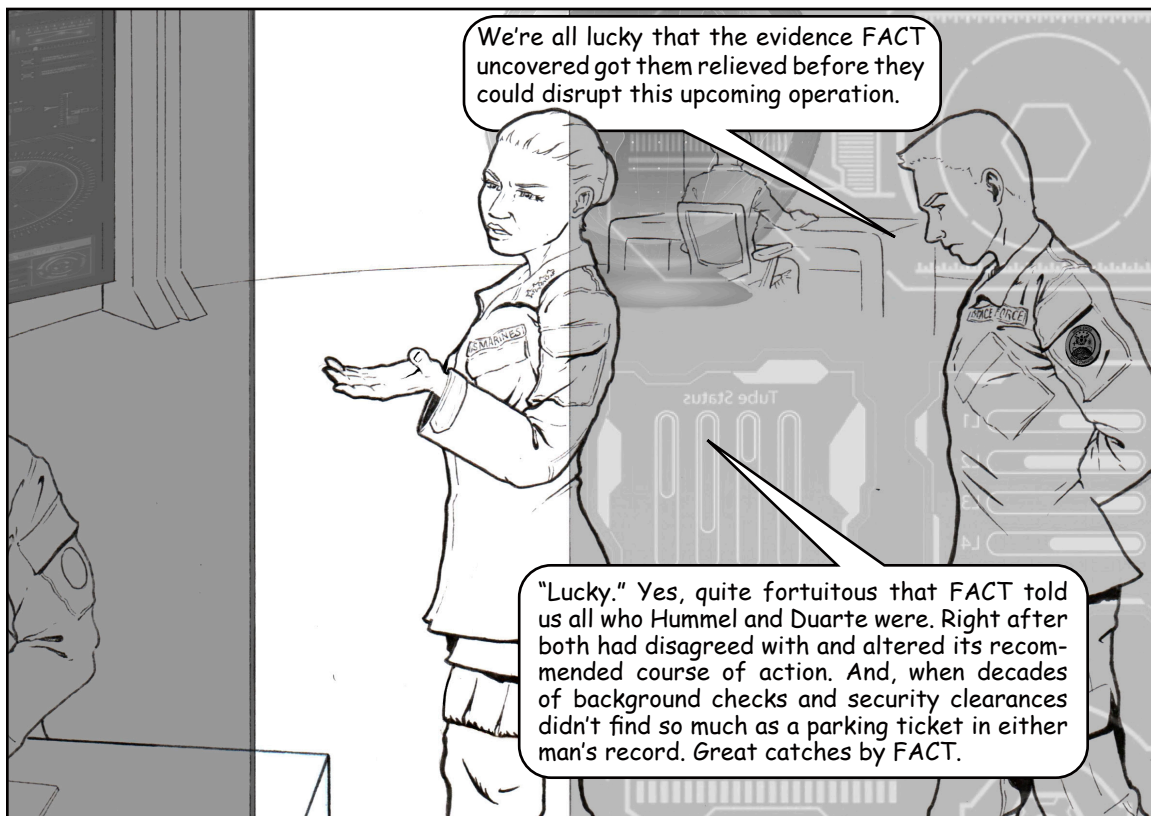
Well . . . but ma'am, you know the things FACT uncovered about them. Their . . . predilections.

Oh yes, the alleged child trafficking ring. The drugs and prostitutes. FACT was quite thorough with their respective stories.



Ma'am, they were hardly stories.
FACT found out both were monsters.

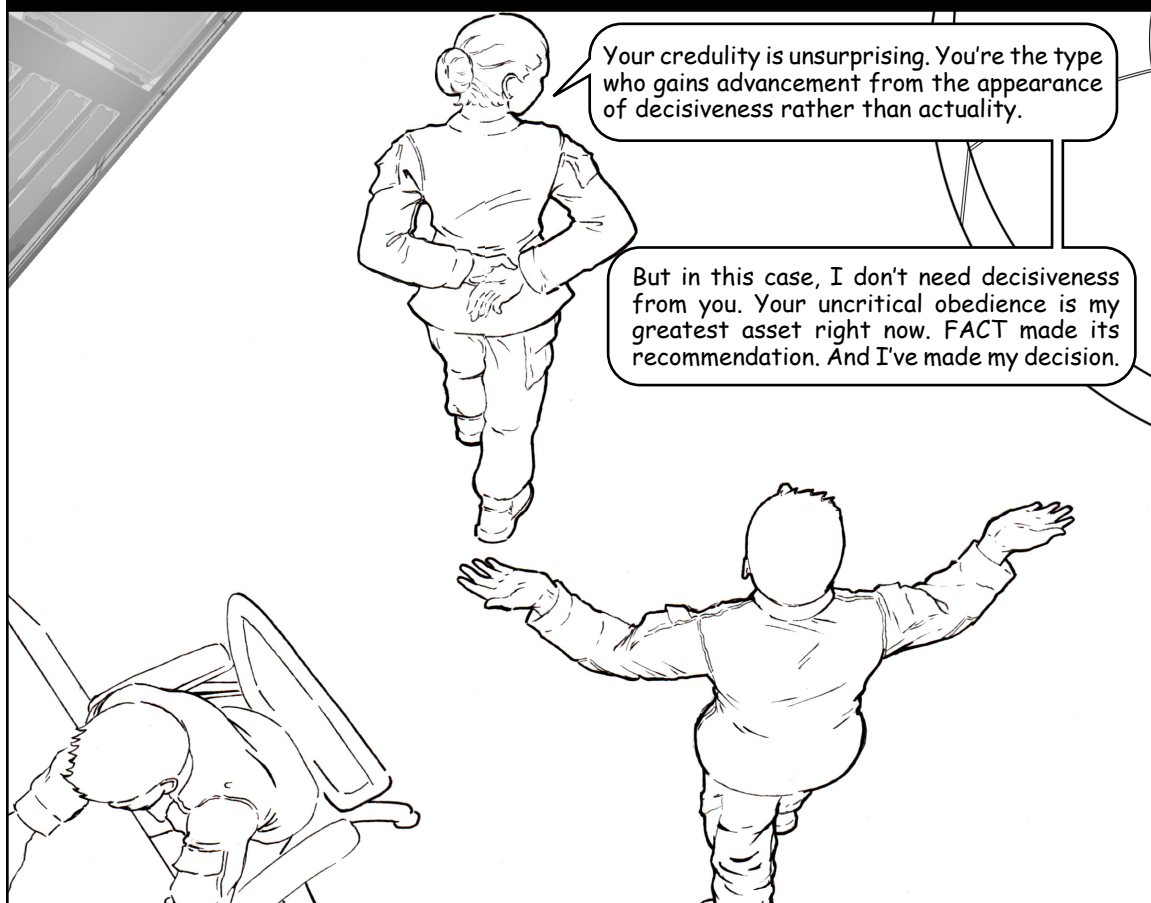






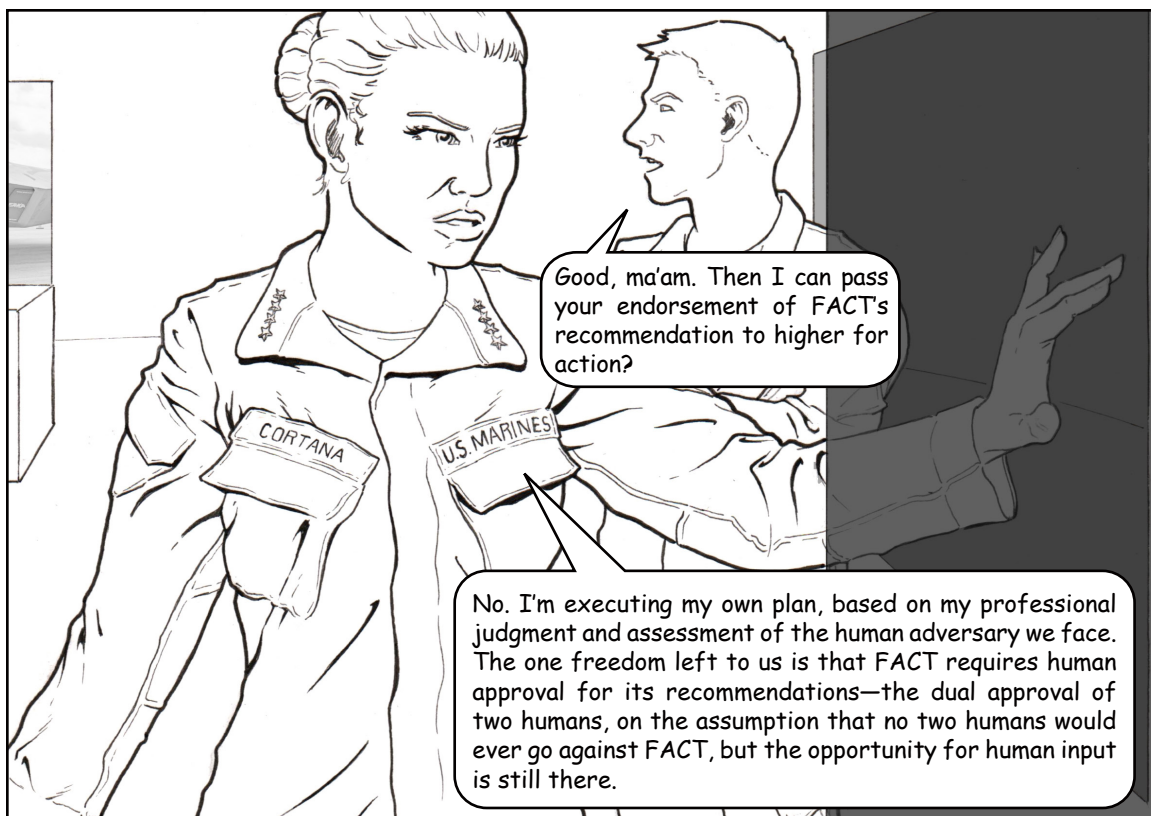
FACT's recommendation guarantees nuclear retaliation. You know it, I know it, your staff and the Joint Chiefs and the president know it. Hummel and Duarte knew it—their mistake was typing their thoughts down for FACT to find them and destroy each man before he could act on them!

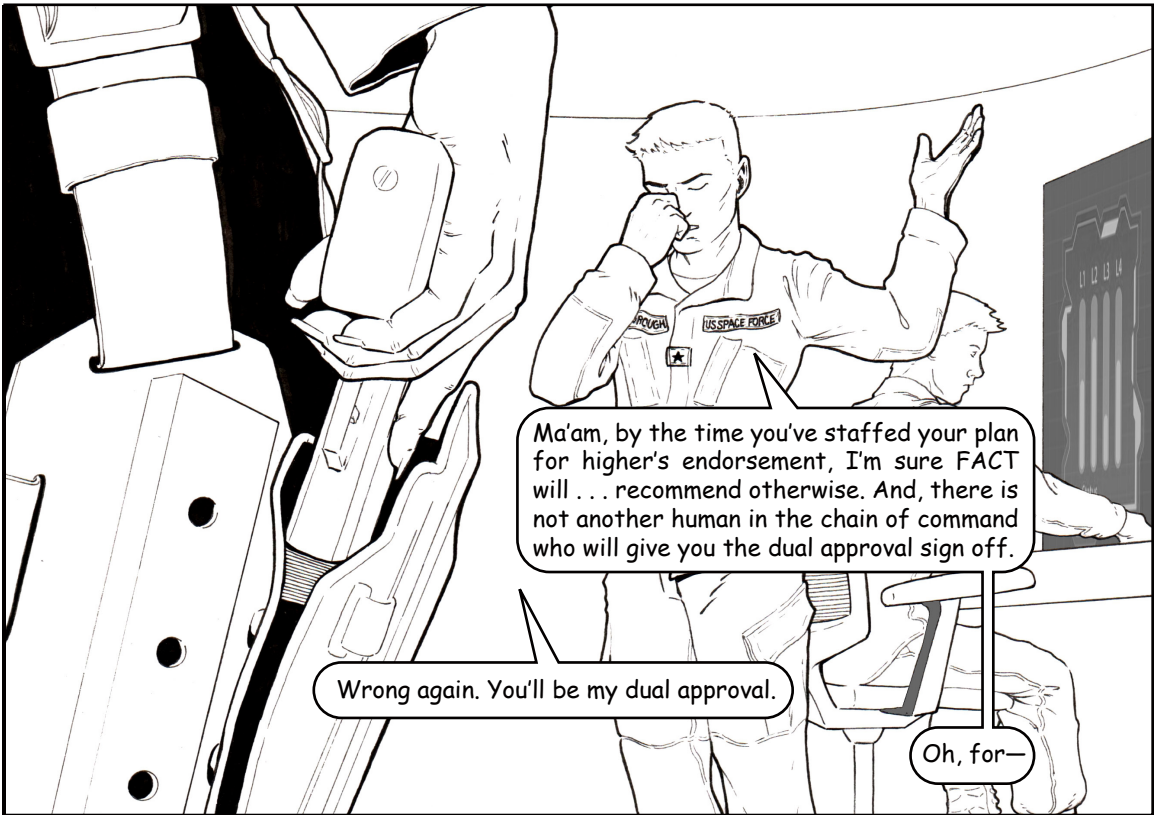
But the evidence . . . FACT found it all—



Your credulity is unsurprising. You're the type who gains advancement from the appearance of decisiveness rather than actuality.

But in this case, I don't need decisiveness from you. Your uncritical obedience is my greatest asset right now. FACT made its recommendation. And I've made my decision.

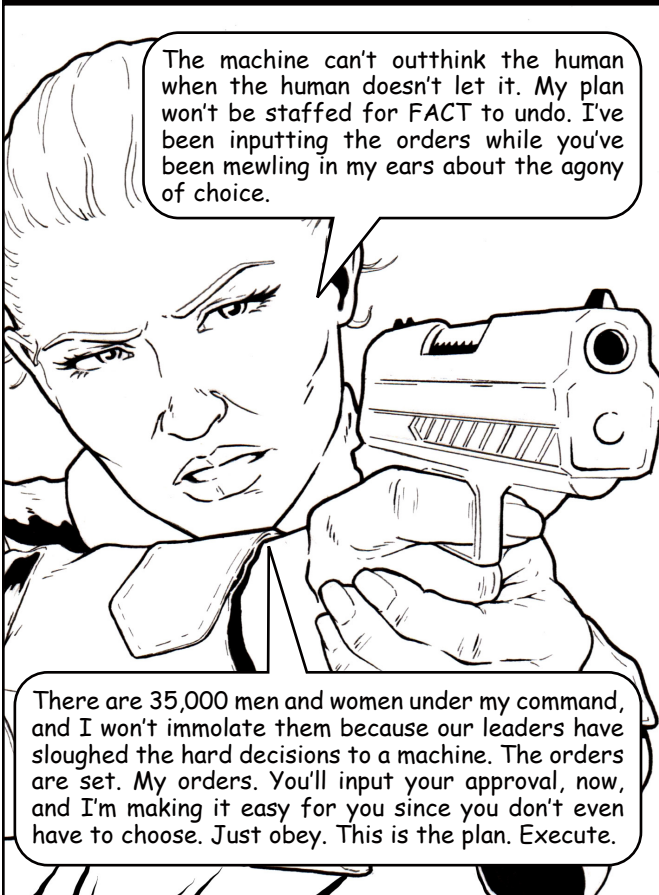




Ma'am, by the time you've staffed your plan for higher's endorsement, I'm sure FACT will . . . recommend otherwise. And, there is not another human in the chain of command who will give you the dual approval sign off.

Wrong again. You'll be my dual approval.

Oh, for—



The machine can't outthink the human when the human doesn't let it. My plan won't be staffed for FACT to undo. I've been inputting the orders while you've been mewling in my ears about the agony of choice.

There are 35,000 men and women under my command, and I won't immolate them because our leaders have sloughed the hard decisions to a machine. The orders are set. My orders. You'll input your approval, now, and I'm making it easy for you since you don't even have to choose. Just obey. This is the plan. Execute.



EXECUTE!





JUST THE FACTS

Discussion Questions:

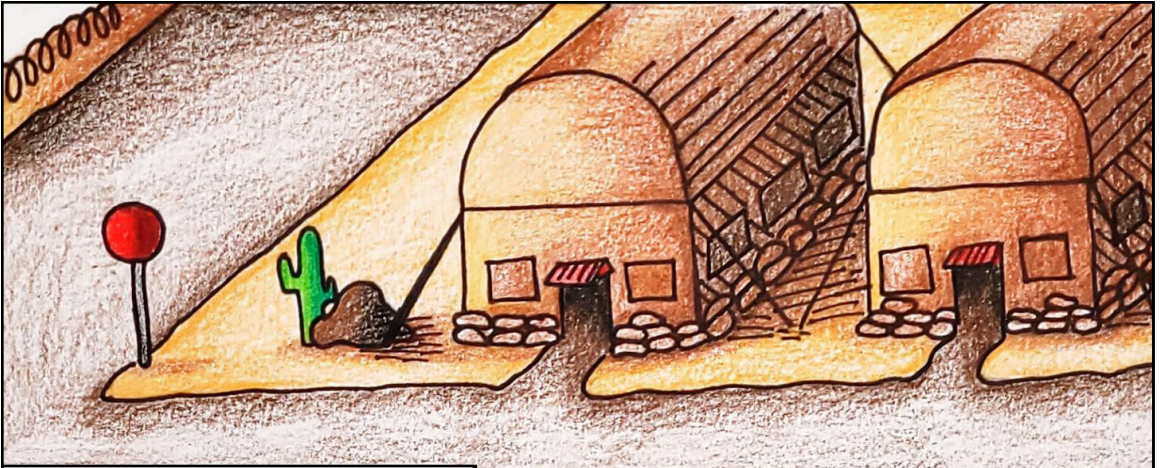
1. Imagine you are General Cortana. What would make you counteract FACT's recommendation?
2. Should AI be used to augment human decision making? In what ways?
3. Can you imagine AI determining how we should fight in the future? Why or why not?

Prezent for Duty: A Story of Leadership through Tragedy in War

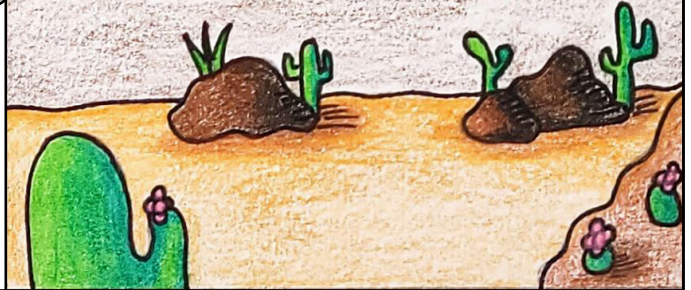
Story by
Cadet First Class Zachary Flash, USAFA;
and Cadet First Class Lelyand Cathey, USAFA

Illustrations by
Cadet First Class Vernon Nazareno, USAFA;
and Cadet First Class Abbigayle Weaver, USAFA

The year is 2063 and the United States is at war with China over state sovereignty in Africa. After decades of rising Chinese influence, the United States has recognized the importance of African nations on the world stage and has launched Operation Savannah Savior to assist those nations in their fight for liberation. The Chinese military abandoned manned units in 2060, creating the Chinese Android Army, and has since perfected android warfare. Prior to the inception of this force, the United States was the uncontested world hegemon. Since then, android warfare has allowed the Chinese to gain power around the world. The United States continues to support manned operations with limited autonomous additions, as the Chinese dehumanization of war is contrary to the principles of the United States. Trooper Team 21 (TT21), the most prestigious special operations unit trained to eliminate android- and AI-based targets, has been deployed to Camp Lemonnier, Djibouti, Africa, in support of Operation Savannah Savior. TT21 has been tasked with securing Chinese Forward Operation Base Xi, home to China's newest androids, the Android Soldier 2021 (AS-2021). AS-2021s have the newest technology, including the ability to utilize biological weapons, but the effects of such weapons are unknown to the world. Trooper Washington, call sign "Prez," is a battle-hardened U.S. Marine who has led TT21 since its inception in 2061.

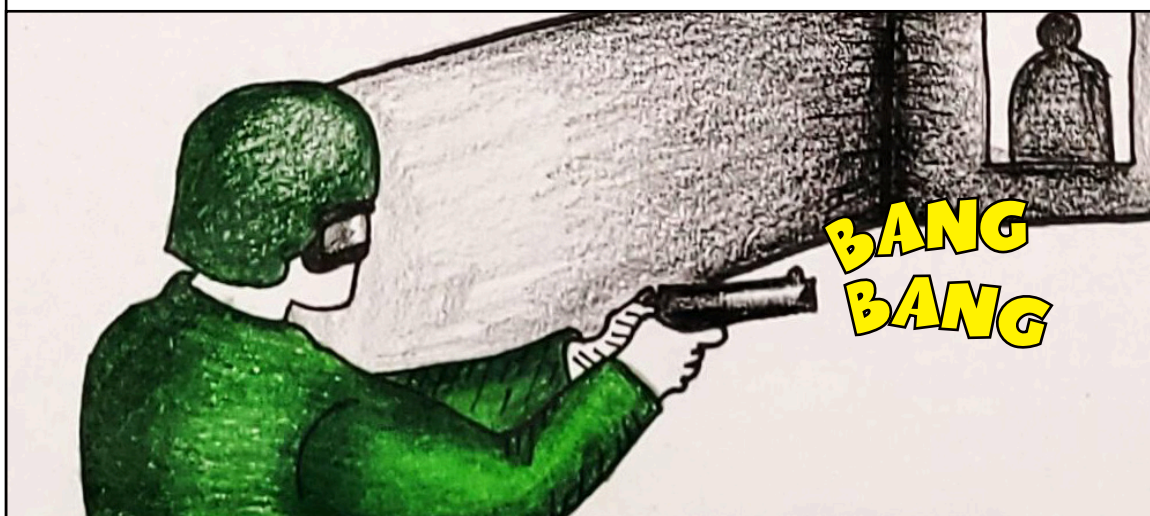
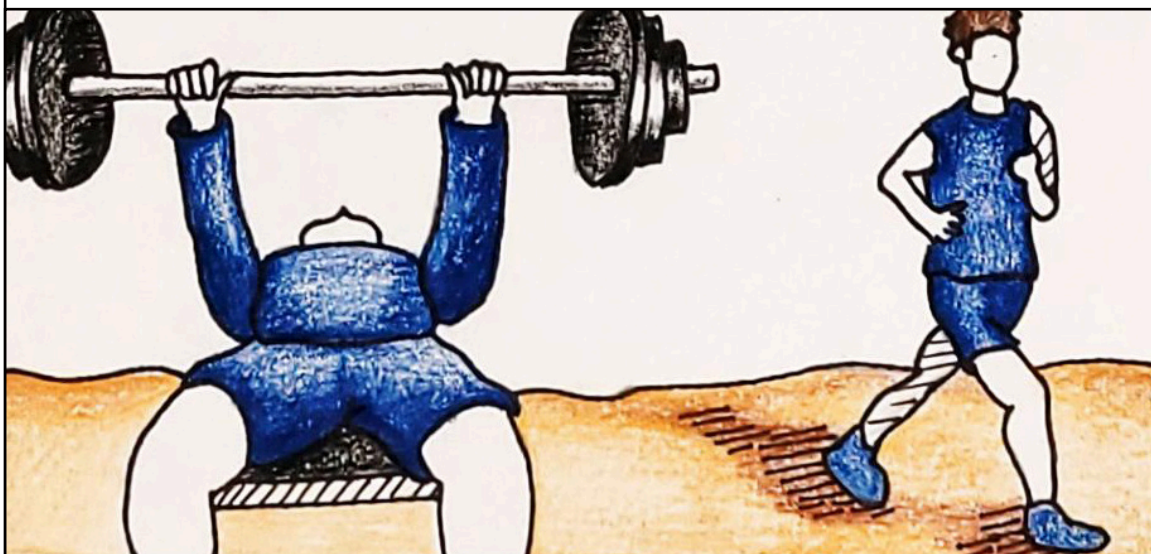
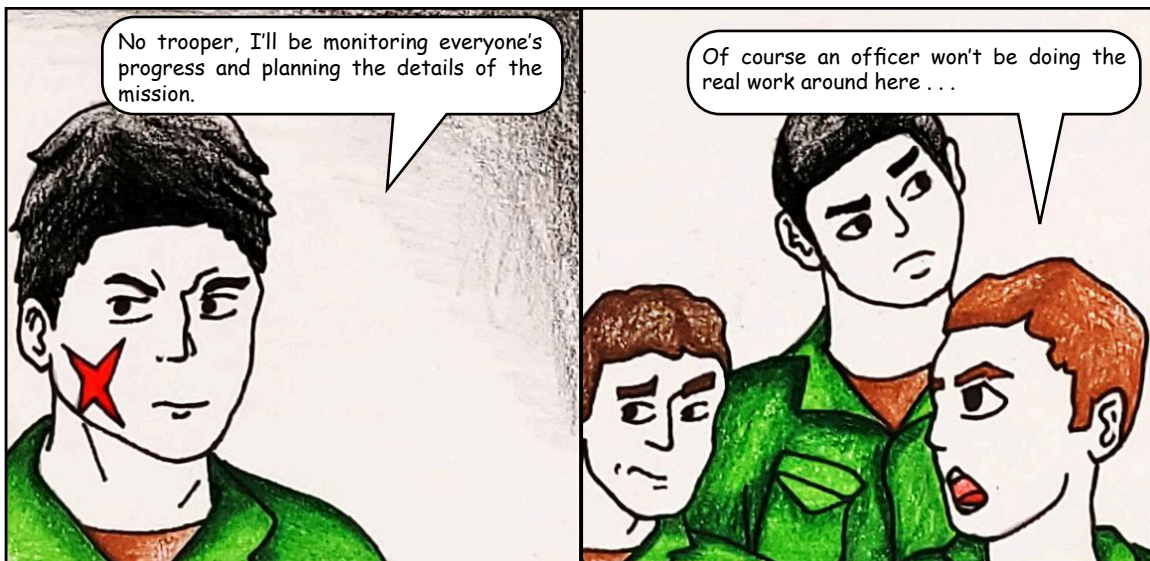


Camp Lemonnier,
Djibouti, Africa.
TT21 is preparing for whatever
will come its way.



In less than a week, we'll be infiltrating a Chinese FOB . . . I expect nonstop preparation from this point on. This'll be a stealth mission, so detection means failure.

Sir, will you be training with us?





Thank goodness, it's taps . . .
I am exhausted.

Me too.

They need to work harder . . .
this is going to be our toughest
mission yet. The Chinese are
getting stronger every day.



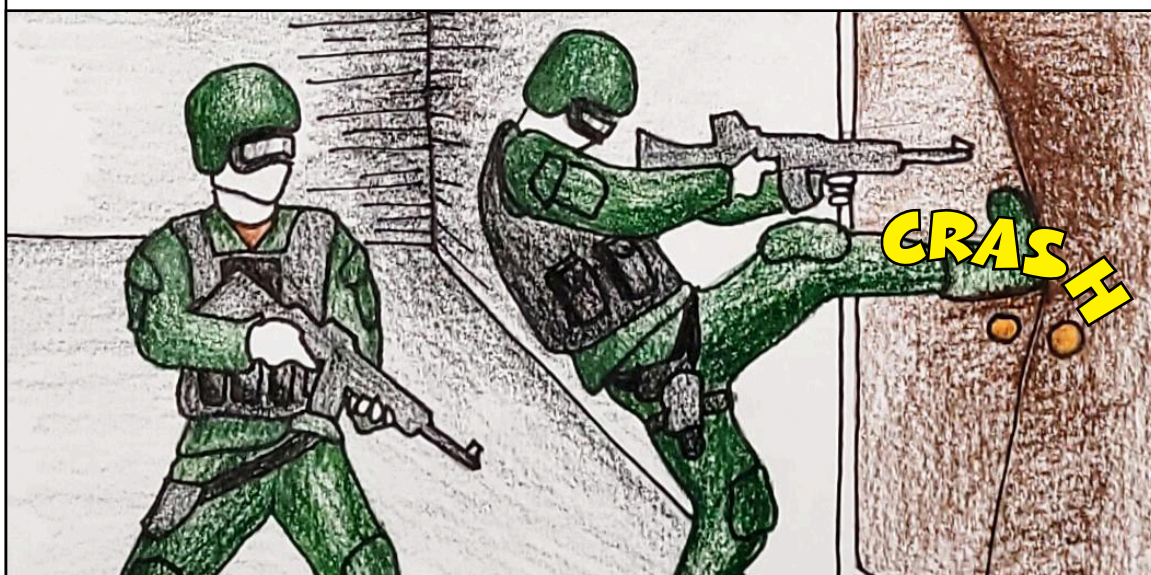
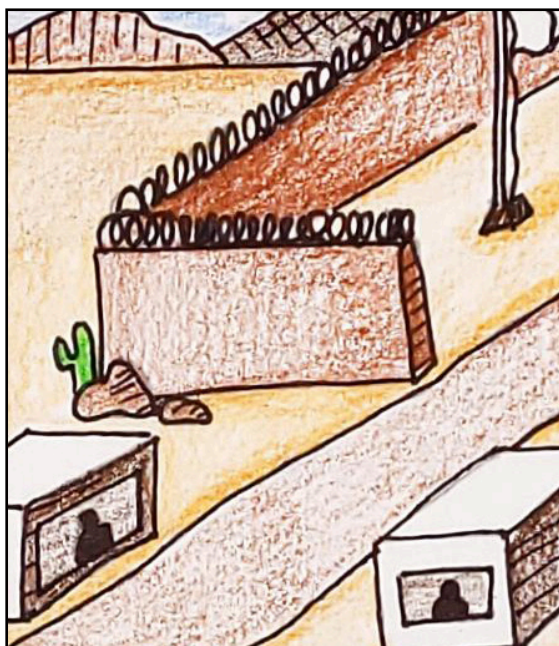
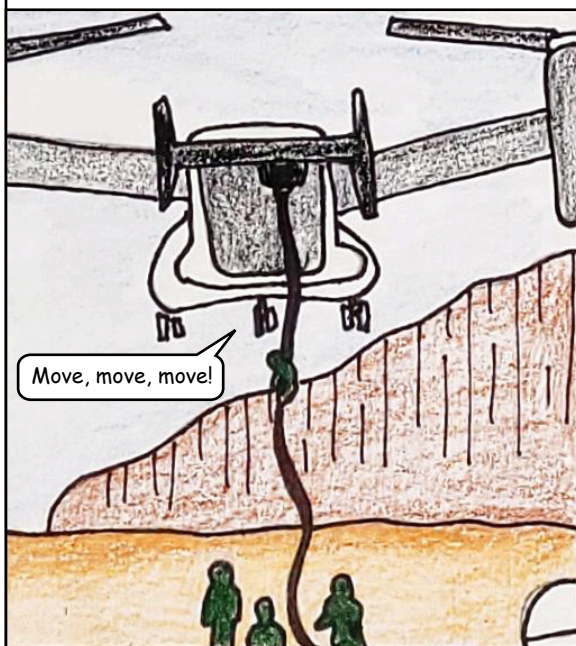
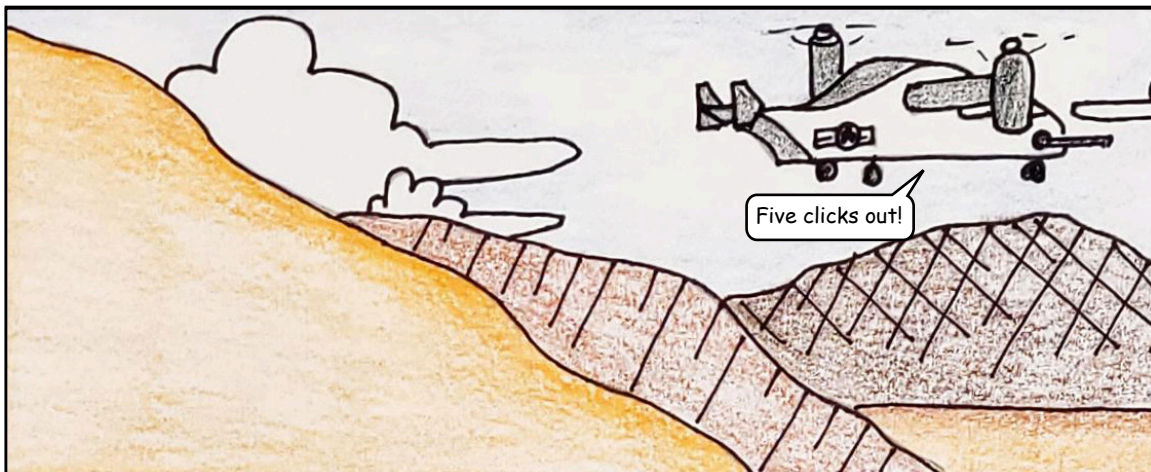
Sarg, what are we doing wrong?
Why doesn't Prez think we're
ready yet?

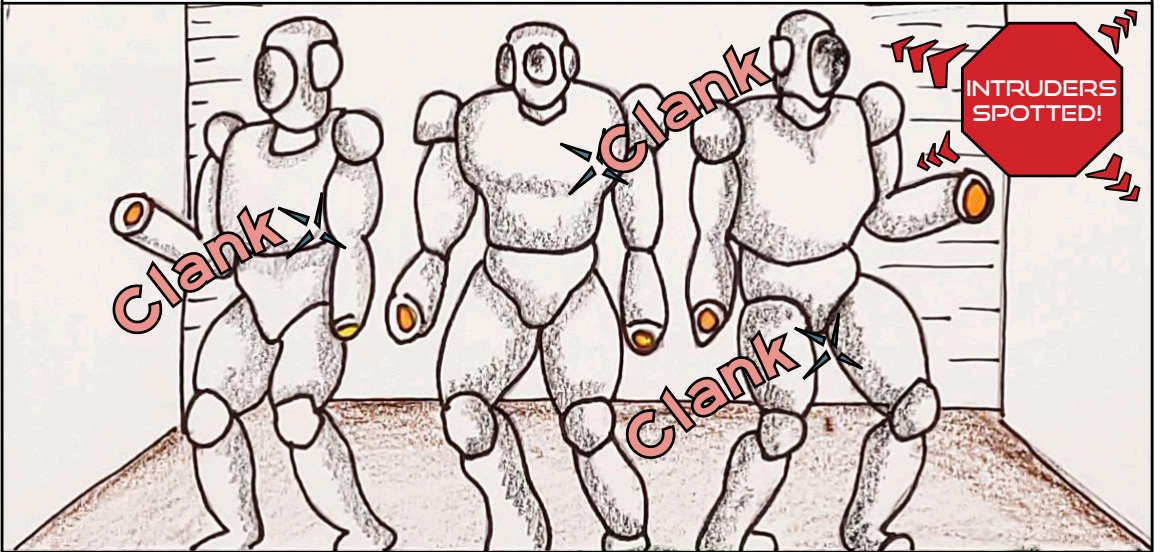
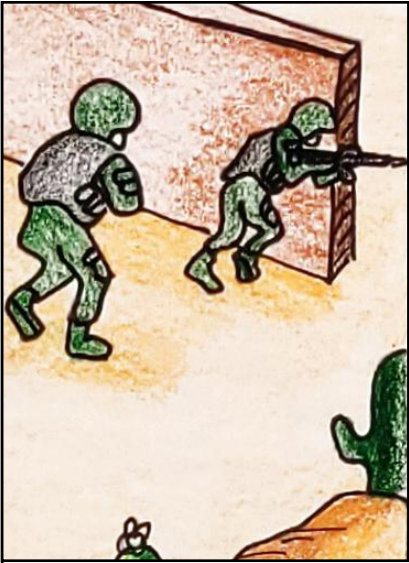


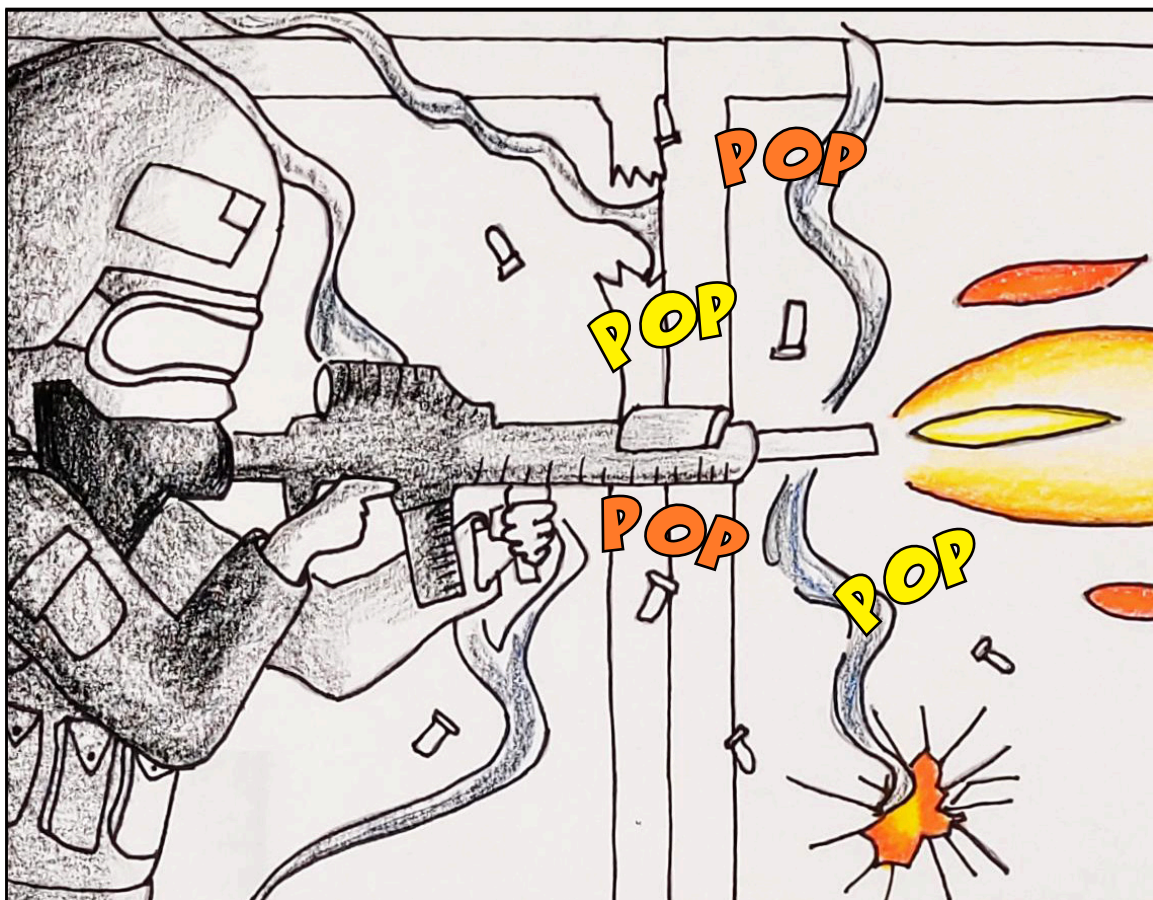
He's just being tough on us because
he cares. Keep working hard.

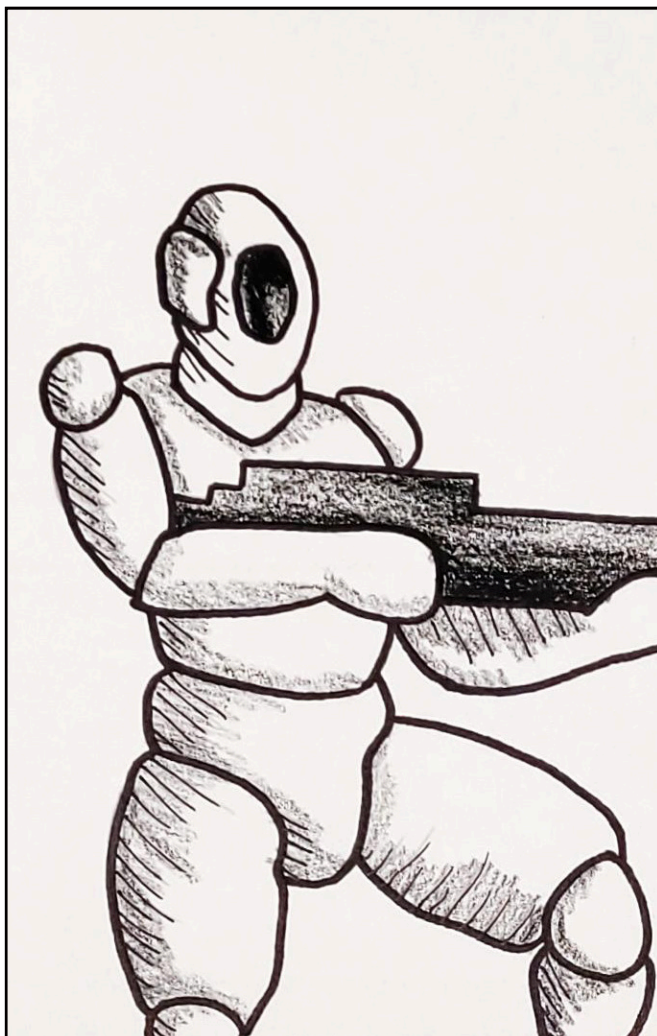


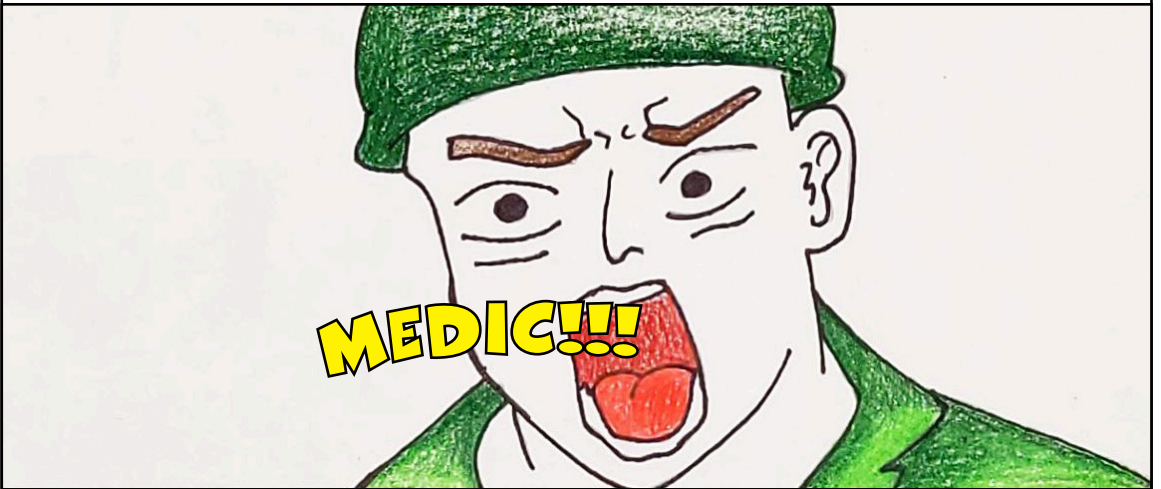
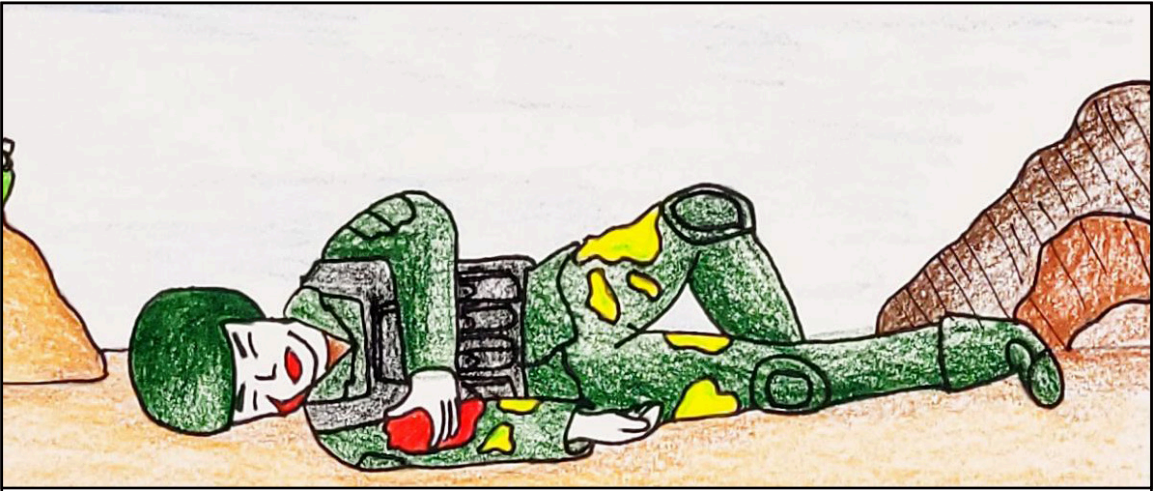


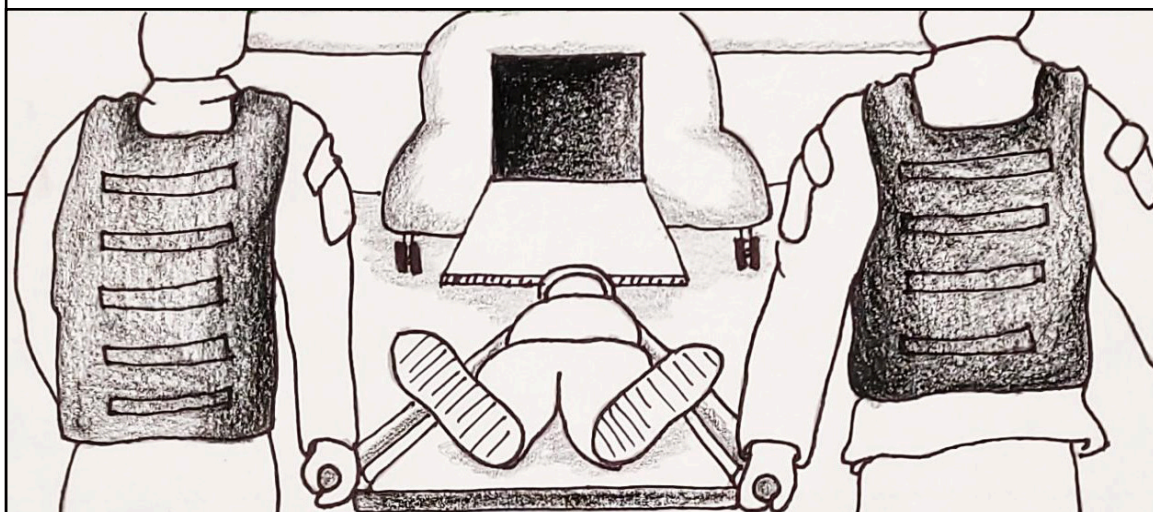


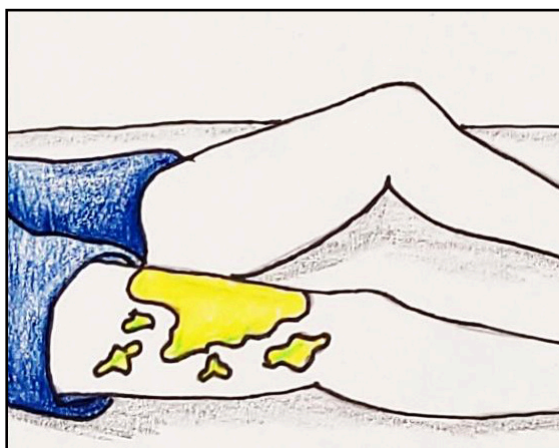
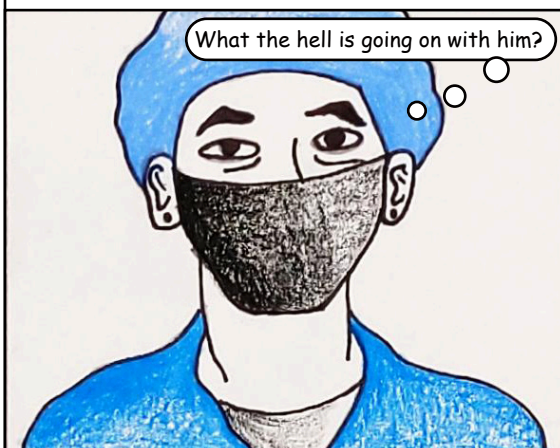


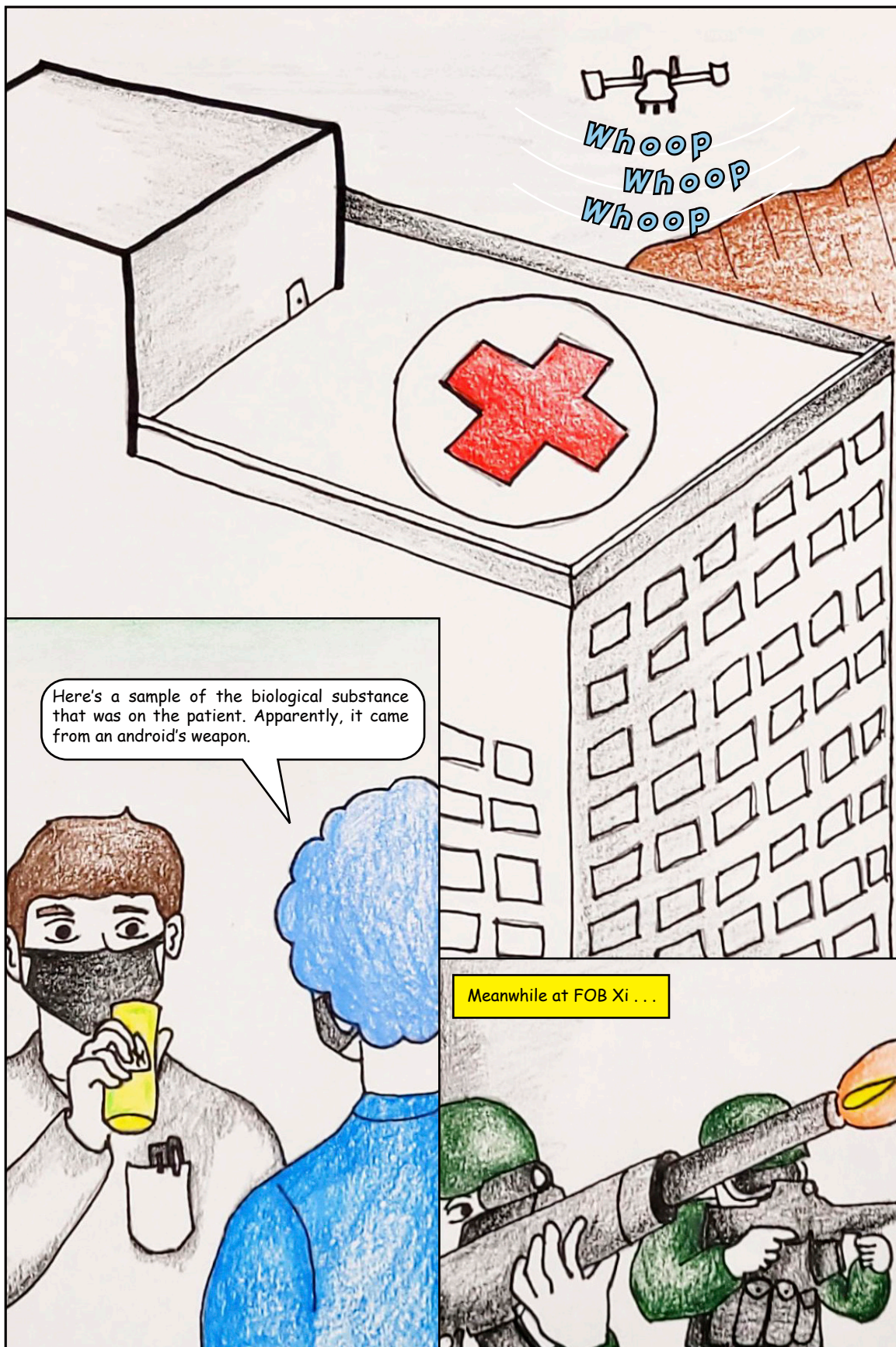


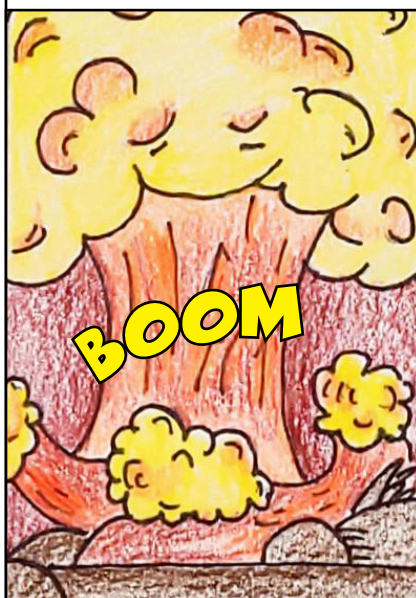
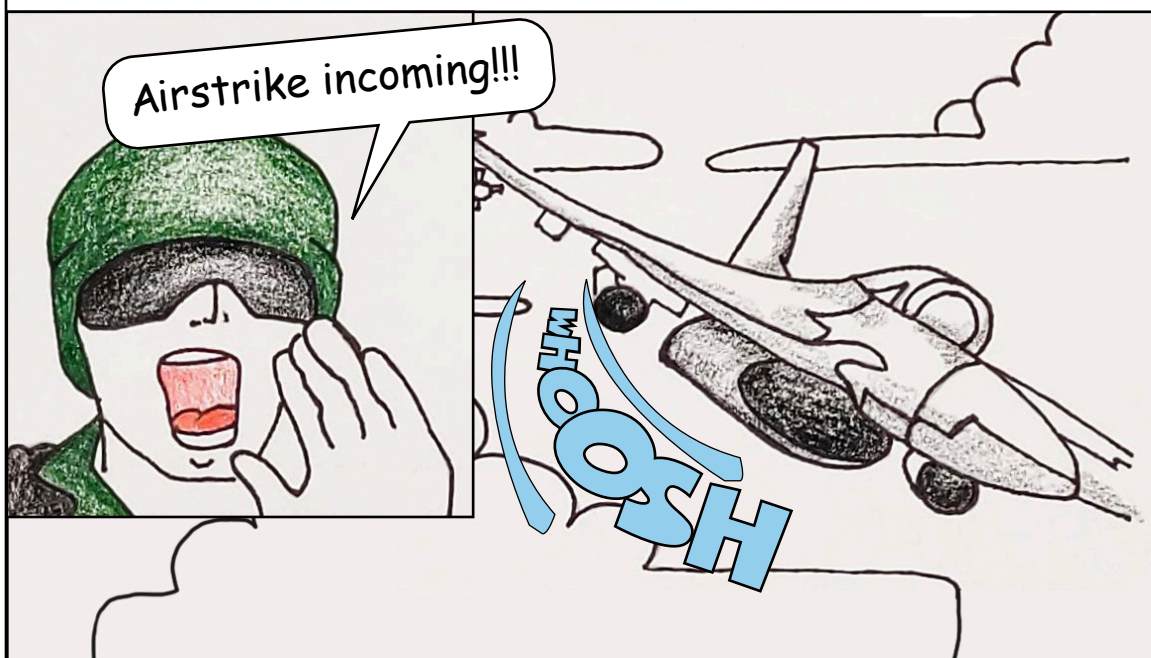








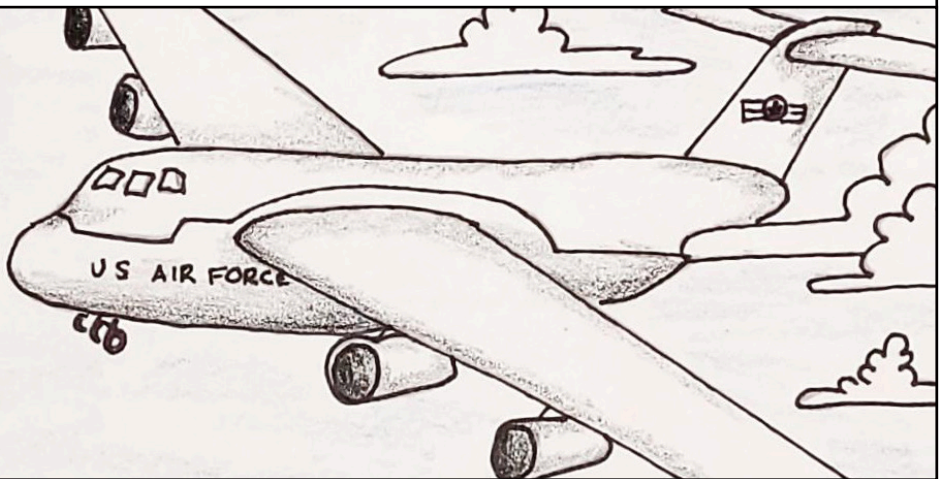




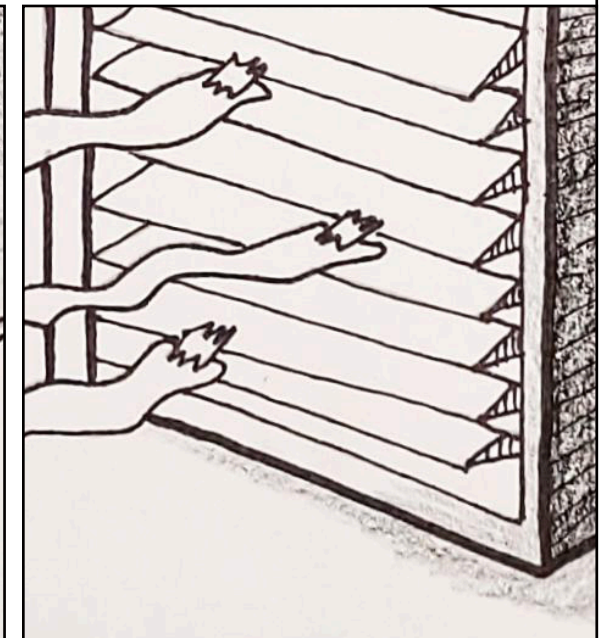
Back at Camp Lemonnier . . .

Sir, we're getting you back stateside. You've been hit with an unknown biological weapon and your condition is worsening every minute.

I have no idea what else to do . . .



Am I going to make it?
Was the mission a success?
How's my team?



At Walter Reed National
Military Medical Center ...

BWEEP
BWEEP
BWEEP

EEEEEEEEE
EEEEEEEEE
EEEEEEEEE

Clear!

BEEEEEEEEEEEP

GLUNK

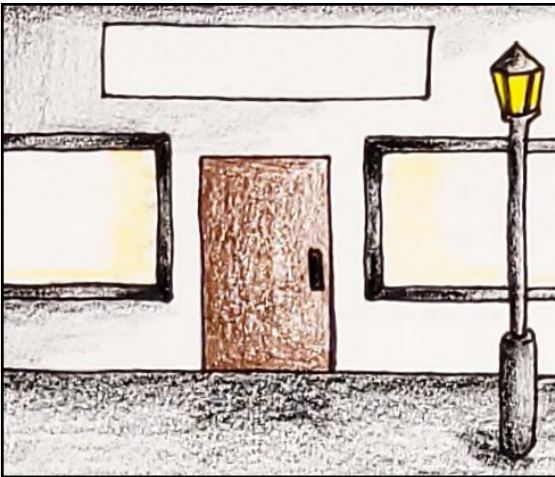
I'm sorry. We've done all we can.

RIP

RIP



Weeks later, TT21 is stateside for some R&R.



Prez is really gone . . .

What are we supposed to do now? Prez was our leader. He was TT21.

Keep fighting for freedom around the world. He trained us to work as a team with or without him. We owe it to him to honor his memory.

PREZENT FOR DUTY: A STORY OF LEADERSHIP THROUGH TRAGEDY OF WAR

Discussion Questions:

1. Are the best leaders always those who are “down in the dirt” with their troops? What makes a great military leader?
2. How does TT21 respond to the loss of Prez? Why is the team successful without its leader present?
3. Was the initial medical team that evacuated Prez properly staffed, trained, and equipped for its mission? Could the team have performed better? In what ways?
4. In what ways are military medical personnel force multipliers? Should medical personnel remain servicemembers and not contractors?
5. Is there a clear demarcation point beyond which war could be considered too dehumanized? Does this story represent a future in which that occurs?
6. How do military units cope with loss? How should units prepare for loss?

All In

Story by
Midshipman Second Class Jen Sun, USNA

Illustrations by
Corporal Cesar Amaya, USMC



During the COVID-19 pandemic, drug companies made an undeniable profit. However, the race for a vaccine illustrated the overly lengthy process to develop new medicines. As a result, companies heavily invested in ways to shorten the procedure.

The answer came 30 years later in this era of supercomputers. Everything from someone's ideal daily schedule to public policy decisions could be optimized through a computer's analysis of substantial data. Enterprising researchers developed a program that used machine learning to identify drug leads with certain biological effects. At last, a computer existed that had the processing power to analyze and predict millions of chemical reactions at a useful speed. It all but bypassed the need for laboratory testing before human trials.

The military quickly took interest in the project. First, they requested the program find molecules that could enhance physical performance. Then, they focused on ways to improve mental capabilities. The computer armed the military with viable chemical formulas, many of which were successful.

With each achievement, the military grew more ambitious. They soon initiated a civilian project that could not comply with drug development safety regulations due to its inability to find viable volunteers. The military, confident in its ability to provide human subjects, moved ahead with the project, rebranding it as the Cognitive Recovery Program.

A willingness to accept risk, pride in their service, and a commitment to a higher mission, veterans became the targets for recruiting volunteers. Once accepted, the program required participants to sign a blanket consent form without revealing any details about the process or its potential side effects. Slowly, those running the program revealed the extent to which they intended to alter someone's cognitive state.

Consequently, a new discussion began about informed consent. Supercomputers had made it plausible to minimize risk, but had they earned our trust? "An impartial third party should investigate and review the military's procedures before the program continues onto human trials," suggested one organization. "Regulations slow progress," the military argued. The government oversight committee debated this ethical dilemma, unsure how to regulate the effects of this new technology; as they grappled with these implications, the military had already moved forward with the program.

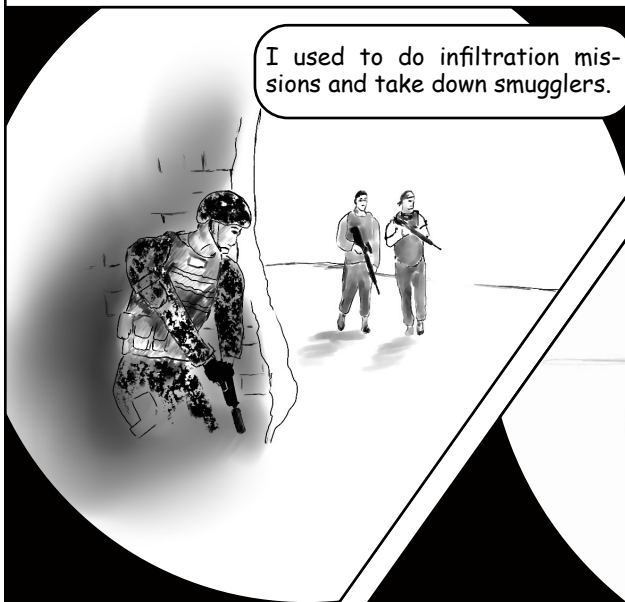


Jones, you've been discharged for two months and still have no idea what you wanna do?

Can you blame me? Everyone wants to hire veterans, just not ones with brain damage.



You have an insane resume. You'll find something.




I used to do infiltration missions and take down smugglers.



Not exactly the skill set people are looking for these days.

Cognitive Recovery Program



Experimental treatment using newly discovered mineral reverses loss of brain function caused by traumatic brain injury. Is there new hope?

PROGRAM UNDER FIRE

Media Corp. general questioned our skills and research of the Cognitive Recovery Program.

- lack of oversight
- no safety regulations

Those new programs? . . . you don't know the risks involved.

But I think I might have some hope of getting back out there.



AI creates a huge library of molecules and we pick and choose the effects we want. We have an unprecedented chance to not only heal but improve the neural pathways that were destroyed.

Yet there's no oversight, no guidelines, and no regulations protecting your patients.

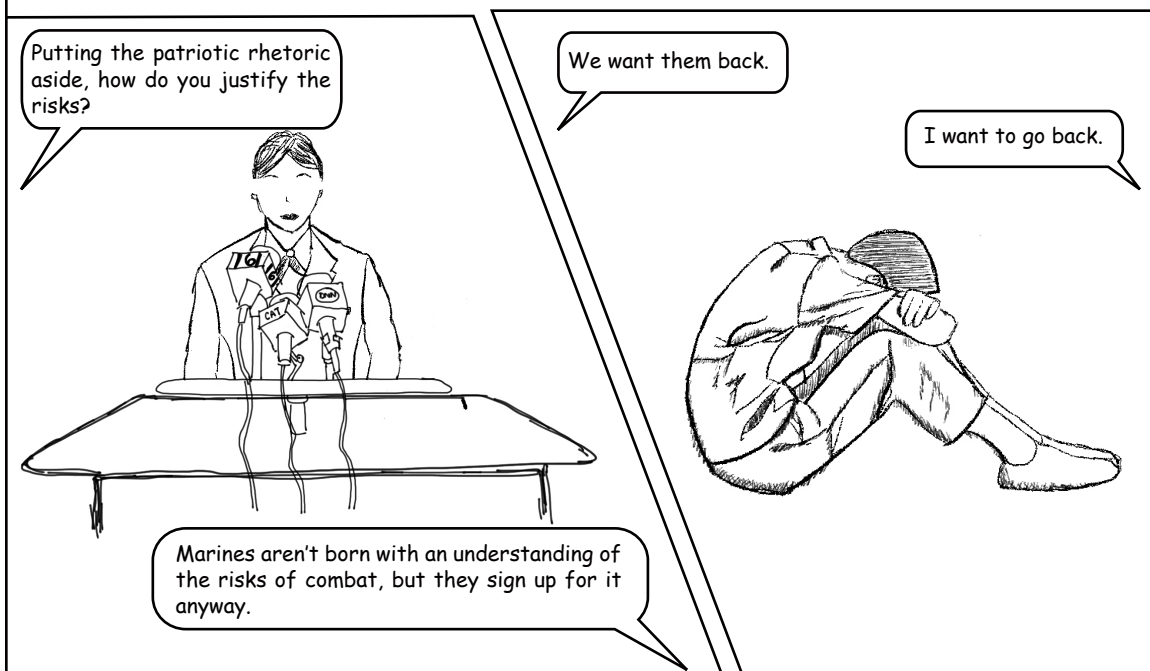


It'll be worth it. I can't imagine living like this for the rest of my life.



Traumatic brain injury leaves Marines unable to focus, with headaches, amnesia, and other symptoms. They don't feel in control of themselves anymore.

They were hurt serving their country, and we've developed an opportunity for them to return to service. How can we abandon them?

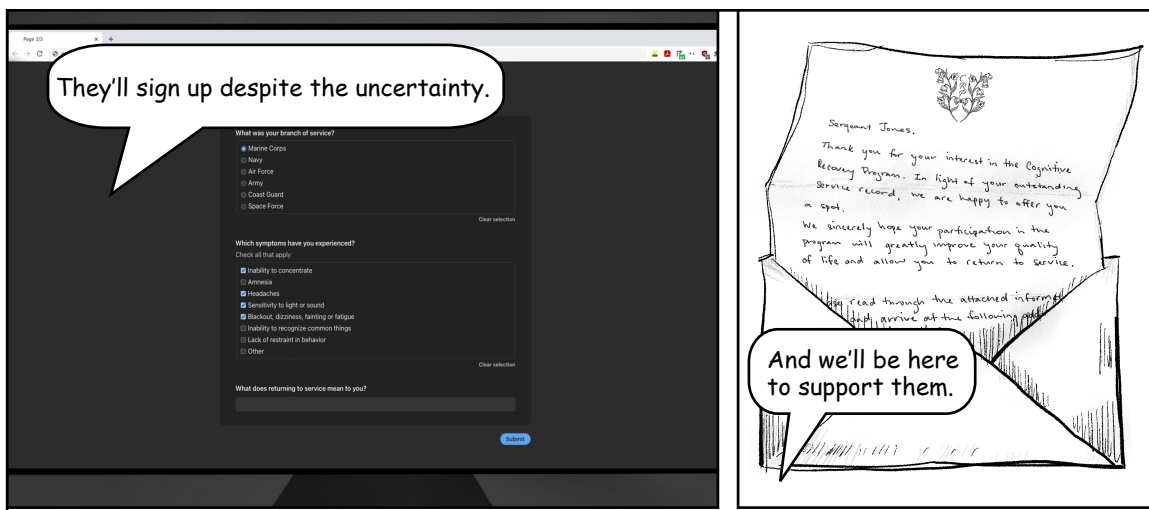


Putting the patriotic rhetoric aside, how do you justify the risks?

We want them back.

I want to go back.

Marines aren't born with an understanding of the risks of combat, but they sign up for it anyway.



All In

Discussion Questions:

1. What risks are posed when AI can produce viable drug formulas faster than people can test them? Is there a situation where you think these risks are acceptable?
2. Do you think the program took advantage of Sergeant Jones's patriotism and love for the Marine Corps to get him to volunteer?
3. To what extent would the Marine Corps need to take responsibility for any injuries caused by the program? Does this change considering Sergeant Jones agreed to participate?
4. How do advances in technology cause difficulties in regulating its use and protecting those who use it?

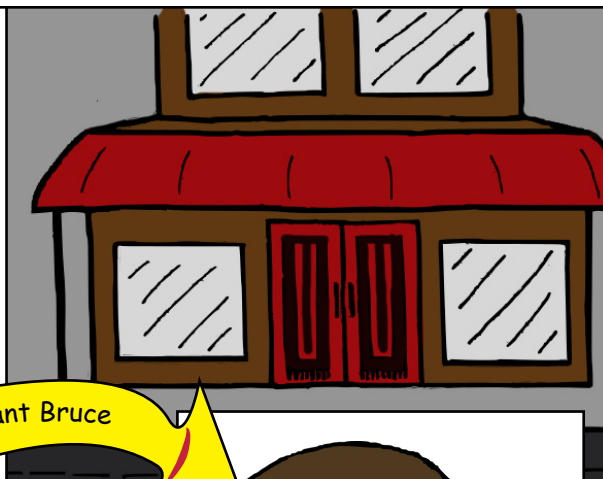
Operation Northern Eclipse

Story by
Cadet First Class Conner Kirkegaard, USAFA;
and Cadet First Class Dylan Drummer, USAFA

Illustrations by
Cadet Third Class Cassidy Bassett, USAFA



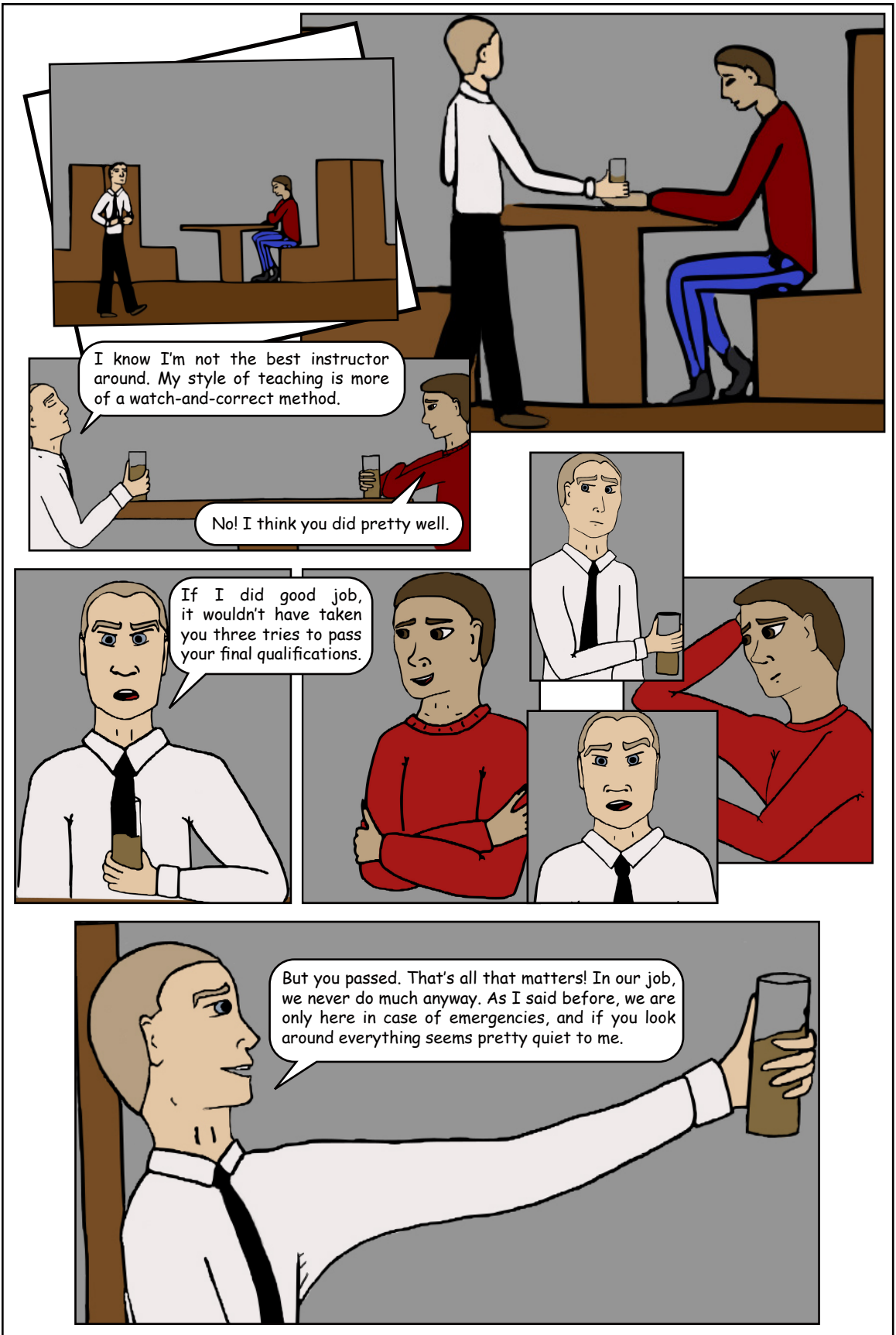
Lieutenant Bruce

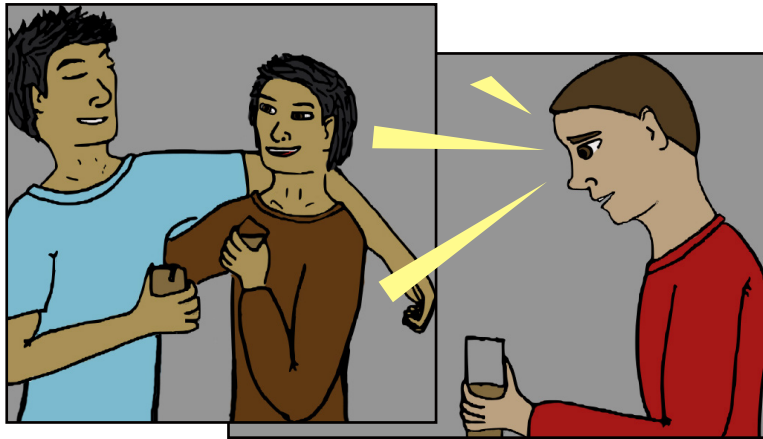
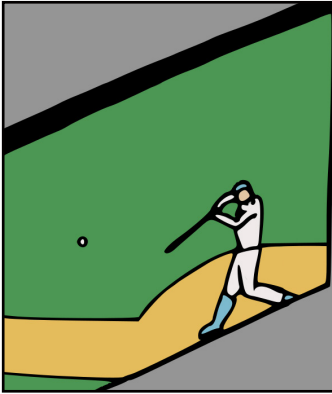


He was nervous that his efforts were not enough to impress Major Campbell. This was his first real assignment. He thought that coming from the United States Air Force Academy, he would have to learn an entirely new way of life.

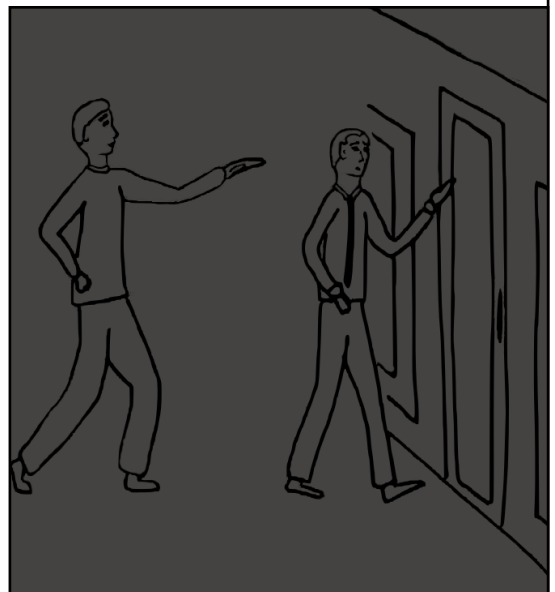


Major Campbell





Lieutenant Bruce looks up at the TV to see who is playing, but before he can find the teams, a stunning brightness fills the bar, illuminating each patron as they struggle to cover their eyes. The brightness fades before they can adjust, leaving the bar in a crippling darkness. The neon lights that once bathed the bar in light were not working, and the TVs have suddenly turned off. A deafening silence is broken by murmurs from the crowd. Campbell stands up and hustles outside toward the moonlight, as Bruce follows.



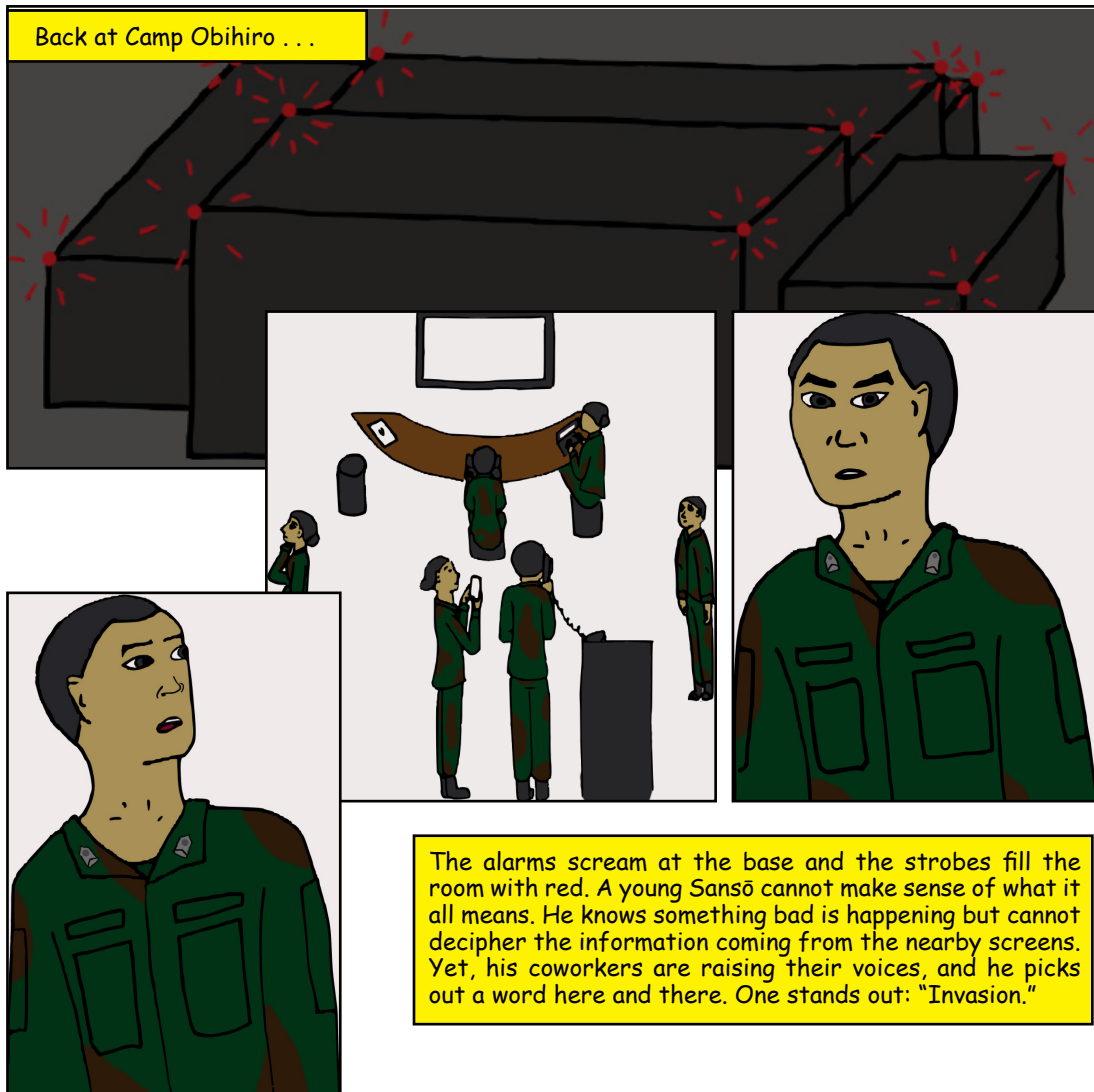


Campbell stands there silently, seemingly waiting for something. Bruce looks around. It seems no one has a clue what is going on. Suddenly, an enormous BOOM shatters the still sky, causing everyone to instinctively duck down. Campbell is the only one still standing.



The major stops and shakes his head. Their Toyota's modern electronics are fried, and there is little chance that the starter will crank the engine. Both Campbell and Bruce know that they have to get back to their hypersonic missile facility more than 130 miles east, at Camp Obihiro. He eyes some bicycles in a shop just down the road. At this point, the crowd on the road begins to panic, and the noise increases. A window breaks in the distance. The two Americans make their way toward the shop window. The sound of glass breaking goes unnoticed in the commotion and the two officers ride off into the night in search of an old car.

Back at Camp Obihiro . . .



The alarms scream at the base and the strobes fill the room with red. A young Sansō cannot make sense of what it all means. He knows something bad is happening but cannot decipher the information coming from the nearby screens. Yet, his coworkers are raising their voices, and he picks out a word here and there: "Invasion."

"INVASION"



His blood goes cold, and he recognizes the air defense radar as it begins to ping red. He knows about EMPs, and fortunately the base has countermeasures. Only small electronics that are unprotected, like the phone he left in the car, would be ineffective. But nothing can prepare the island for the airliners suddenly changing course. The missile system hidden within the mountains is barely operational but has the capability to make a difference. Where are the Americans? The American tech is difficult to operate. He hears his coworker gasp.

Meanwhile, back in Sapporo . . .



Fortunately, the old Nissan starts without an issue. The owner is understanding, despite the language barrier. He, in fact, got two new bikes in return. The two Americans make their way down the road toward Chitose Air Base and Campbell turns to Bruce.



Are you seeing that?

Slow down . . . listen.

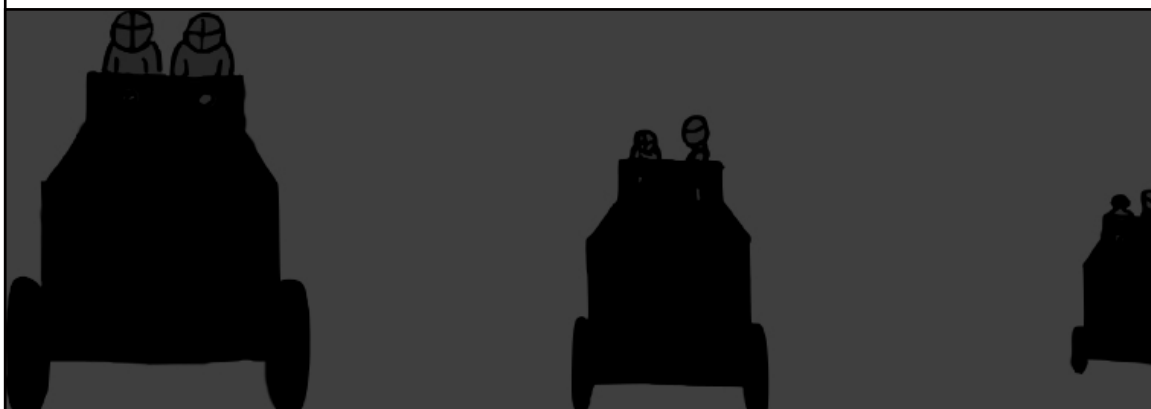
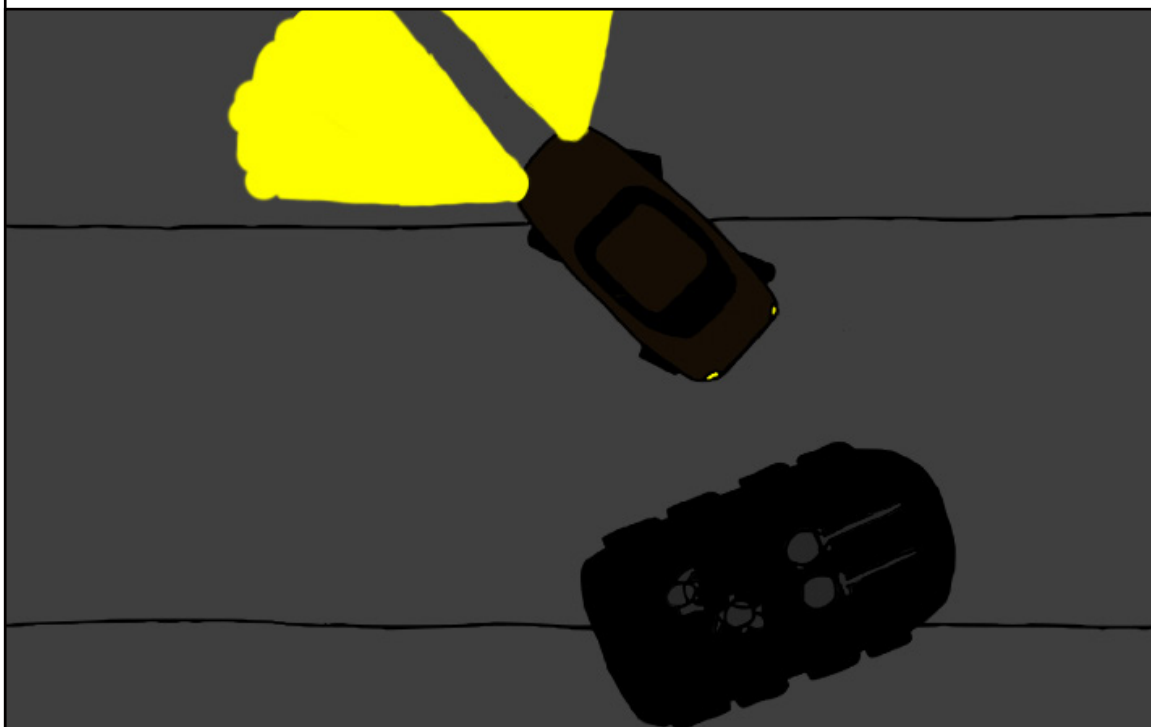
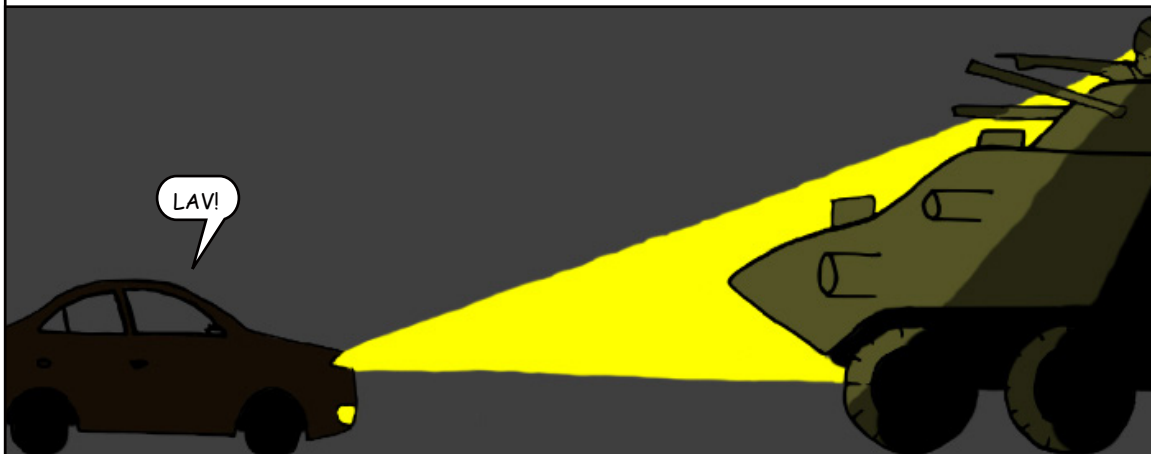


We need to get back to Obihiro, now. Look for paratroopers, lieutenant. I'm sure they will land out here, too.



Campbell cranks down the window as the car slows. The mountains ahead sit in the quiet darkness and the men strain against the silence to hear. The rhythmic roughness of the engine winds down to little more than a whimper as the stars hide behind scattered clouds. Suddenly, a couple cranks rang in the distance near Sapporo. Sure enough, more and more canopies become apparent against the clouds. The engine roars to life as Campbell floors it toward the mountain passes.

A big black shape in the road interrupts their conversation. Bruce grips the handles as Campbell swerves to avoid it. The suspension screams as the car barely avoids the roadblock.



His foot pushes the pedal almost through the floor. Looking over his shoulder, Bruce makes out the shape of a Type 08, a Chinese light armored vehicle, driving down the road in the opposite direction. On top sits the silhouettes of several soldiers, two of which appear to be sighting their weapons on their car. Campbell and Bruce brace for the worst, but the LAV disappears into the blackness, heading to the darkness of Sapporo. The men breathe a sigh of relief as the car begins to climb into the mountains.



Back at Camp Obihiro . . .

The Sansō is overcome by anger and fear. He works fervently, monitoring the updates of the siege of Sapporo and passing them to the commander. He thinks about his family and friends. His thoughts keep him from noticing the chaos around him. His tears flow down a face bathed in the flashing red lights of the command room. Voices snap at one another, channeling intense emotion. For months now, they worked on this project—the project to end wars. He had isolated himself from everybody he knew, sworn to secrecy to protect the new weapon. The missile to end all wars, he had heard. While he never got a look from his monitoring station, he had overheard whispers of the maintenance staff coming back from the mountains. They called them “the spears.” Yet, they were behind on schedule, and the Americans leading the program were nowhere to be found. They were the only hope for getting the system online.



Back in the car with Major Campbell . . .

Campbell sits quietly in the car seat as the old headlights gently bathe the road in yellow light. He missed the birth of his daughter, Ellie. She is almost eight months old. He has never been shaken like this. Hard, gritty family man is a part of his identity. Yet, Ellie would have grown up without a father had the Type 08 soldiers fired on the car. His life would have been erased, smeared across the inside of an old Nissan thousands of miles from home. Another statistic. He looks over at Bruce. New guy, but smart. Better than Campbell, but he would never admit it. It is his job to guide Bruce into the future of hypersonic missiles. But his thoughts drifted back to Ellie.



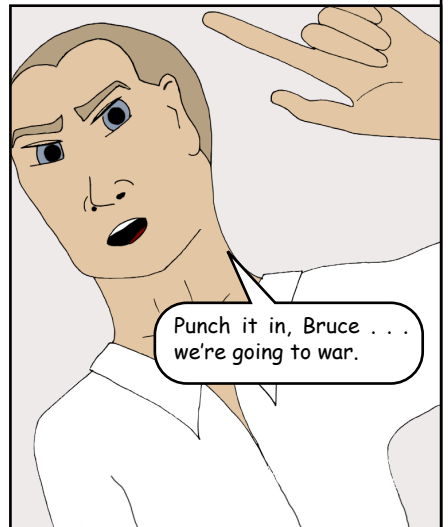
The Americans see the lights of Camp Obihiro come into view as the car limps over the road. A complete lockdown means stringent security measures, and the guards raise their weapons. The men prepare for the worst, knowing that at any moment they may be fired on. They slow to a crawl as they inch toward the guard shack. But as soon as the police see their IDs, they let the Americans through. The executive order from the base commander reached them hours ago.



The Sansō watch as the Americans walk through the control room to the elevated room above. For once, the room falls silent as they seem to be larger than life. A few of the other Sansōs have their heads down in prayer as the red on the screen grows in size. The two men go inside the room quickly, the door locking behind them.

Bruce's fingers gently graze the keyboard. The cursor blinks patiently. Campbell speaks quickly on the phone. Entering the passcode brings the hypersonic missiles online, and for the first time in history, they would be used in combat. The targets have already been identified and selected by the Japanese forces in the control room. Yet, clearances are needed from both the Japanese prime minister and the American president to launch the missiles. Bruce feels an intense excitement paired with deep sadness. He knows his name would never be in a history book, as this operation is strictly Japanese, giving the Americans deniability.

Back at Camp Obihiro . . .



OPERATION NORTHERN ECLIPSE

Discussion Questions:

1. Imagine you are Lieutenant Bruce at the bar with Major Campbell. As you realize an EMP has wiped out all electronic capabilities in Sapporo, what is your first thought? Do you panic? Do you stop and help others? Do you look to Major Campbell for guidance?
2. As the Type 08 LAV rolls past you down the road toward the city, would you try to notify others? You got lucky enough getting out, but the people in the city might not be.
3. If you were in the position of the Sansō, would you have tried to better prepare for situations like this? Should the only two people qualified to operate the special project be allowed to be absent at the same time?
4. Major Campbell knew he should keep focused on the mission, but his thoughts kept drifting back to his family and his daughter. Without any electronic capabilities, would you try to leave a message for your family and friends in case things turned out unfavorably?
5. In the last scene of the story, Lieutenant Bruce is about to type in the password to activate the missiles. He thinks about how no one would remember his name for this historic event. If you were in that position, would you want people to remember your name? What do you think the public should remember from that day?
6. How vulnerable is the current U.S. military to the threat of an EMP? In terms of doctrine, organization, training, materiel, leadership, personnel, facilities, or policy, how might the military change to be more resilient in the face of this threat?

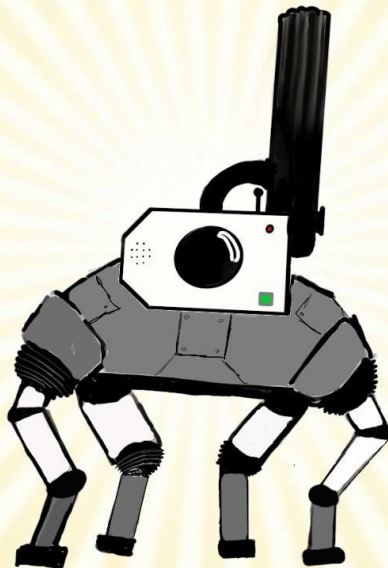
No Better Friend

Story by
Lieutenant Colonel Adam Yang, USMC

Illustrations by
Illustrations by Corporal Cesar Amaya, USMC



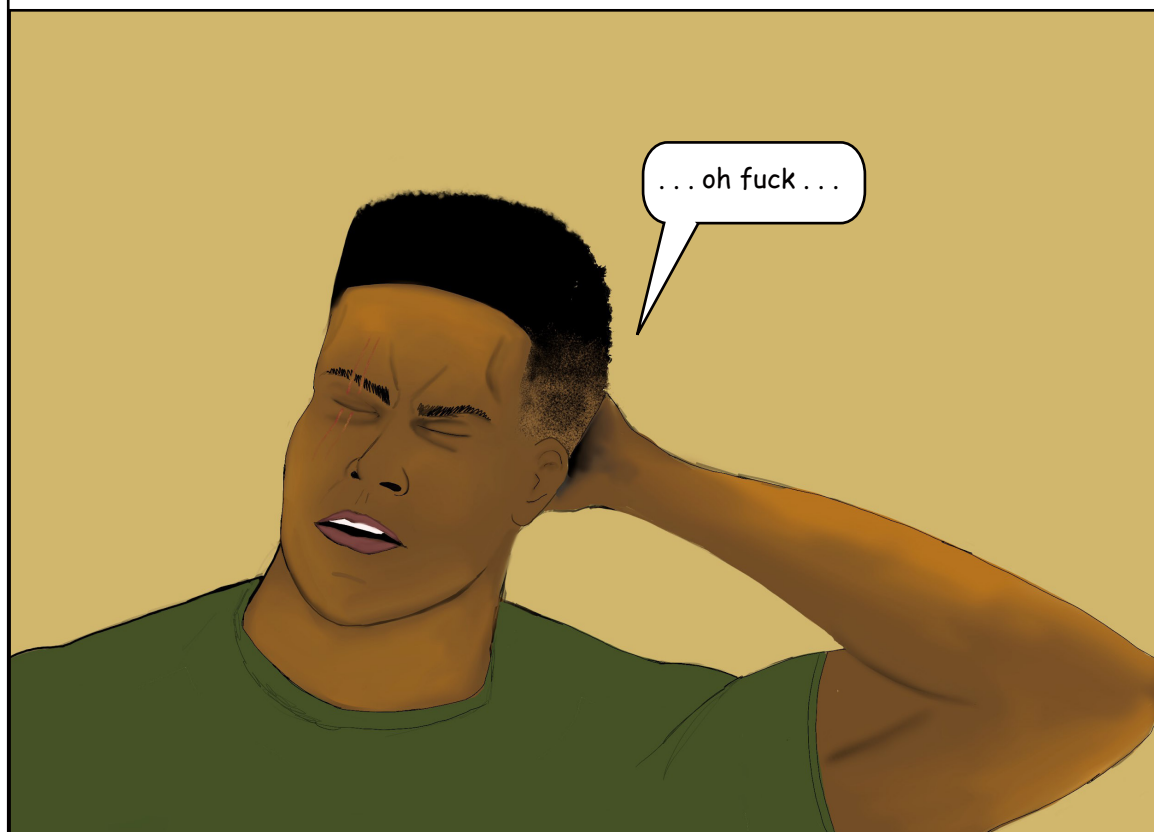
Say hello to your new assistant squad leader,
XD-8675-309.

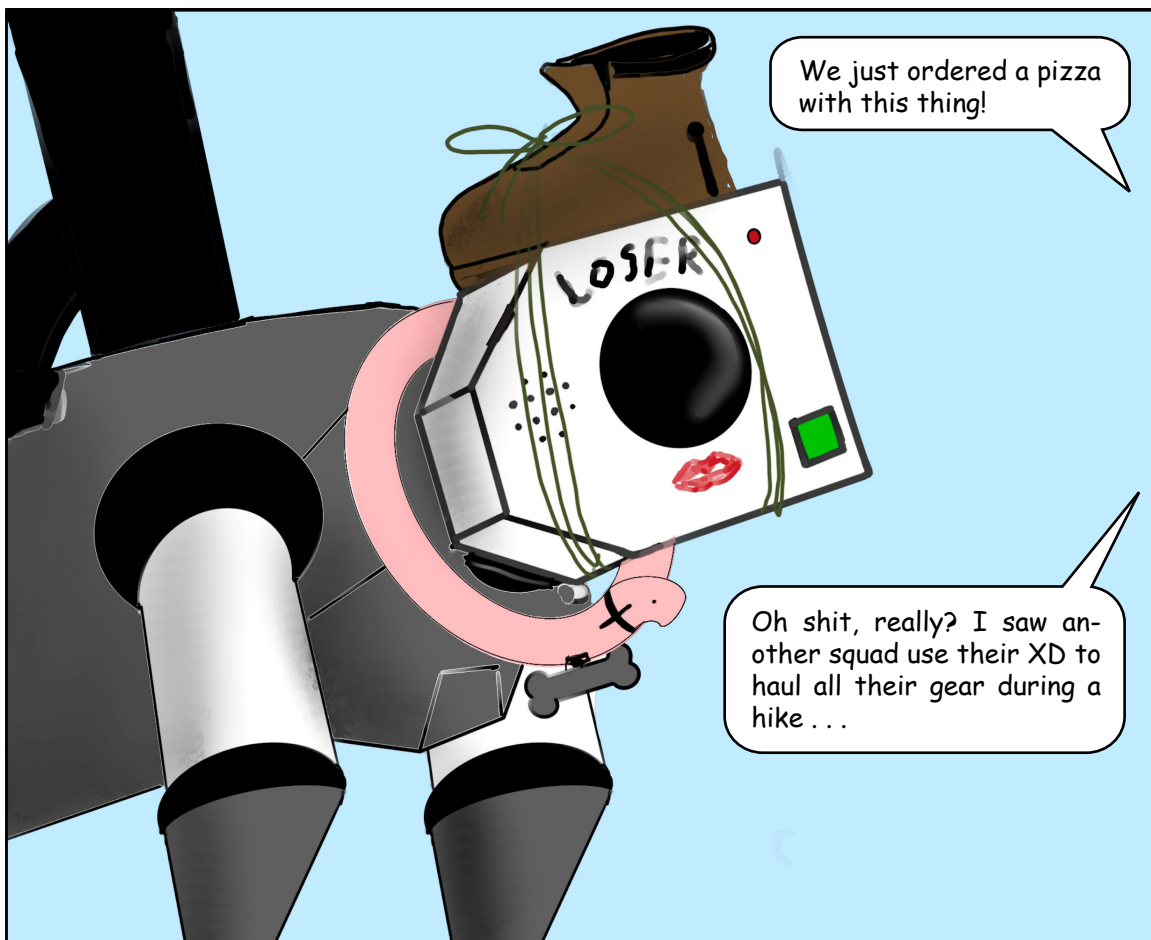


Two years earlier in Syria . . .



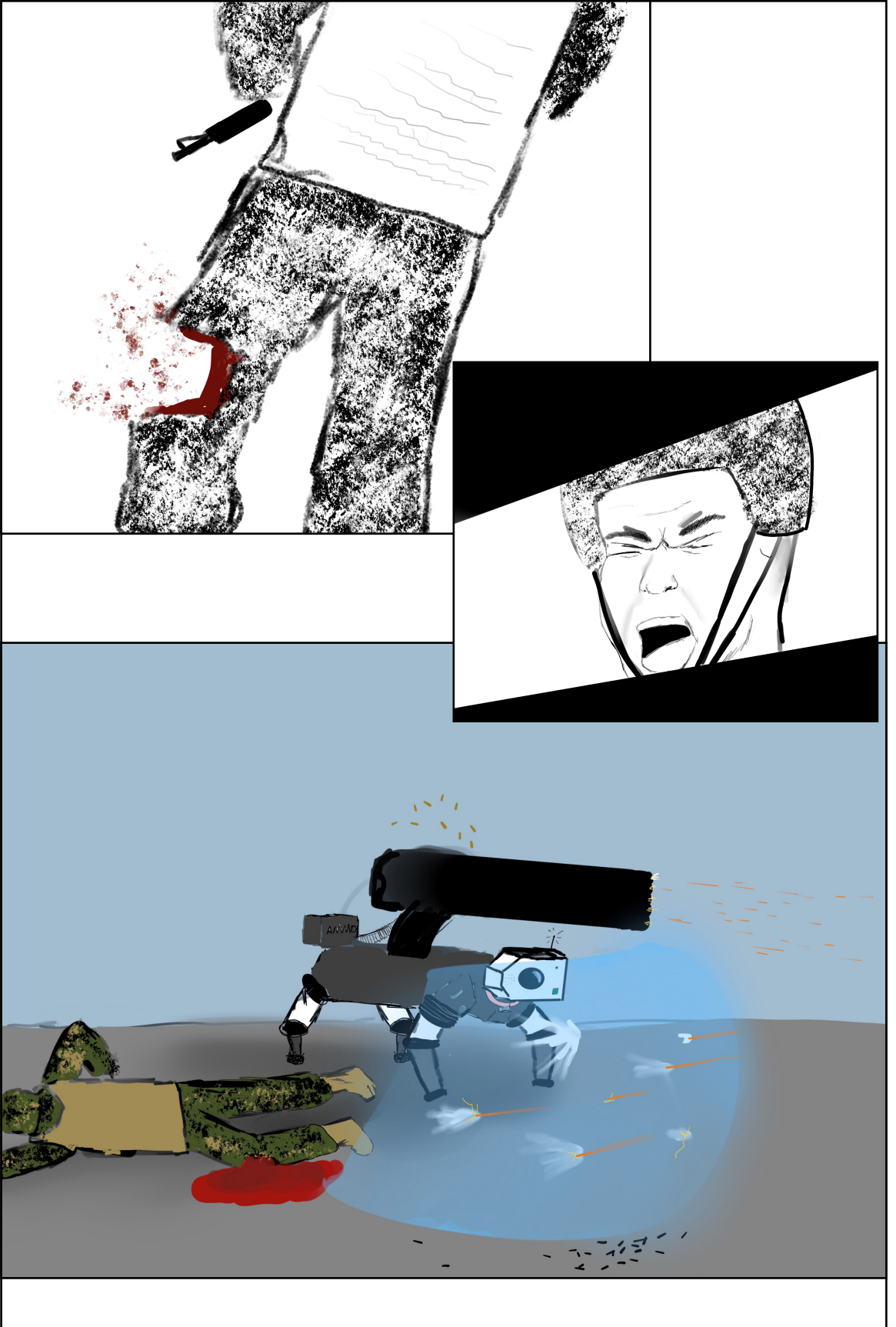






Somewhere in the Donbass region of Ukraine...







Two months and many firefights later, XD instinctively dashes ahead of the squad and draws incoming missile fire. This gives the squad the best possible chance of survival against enemy aircraft.



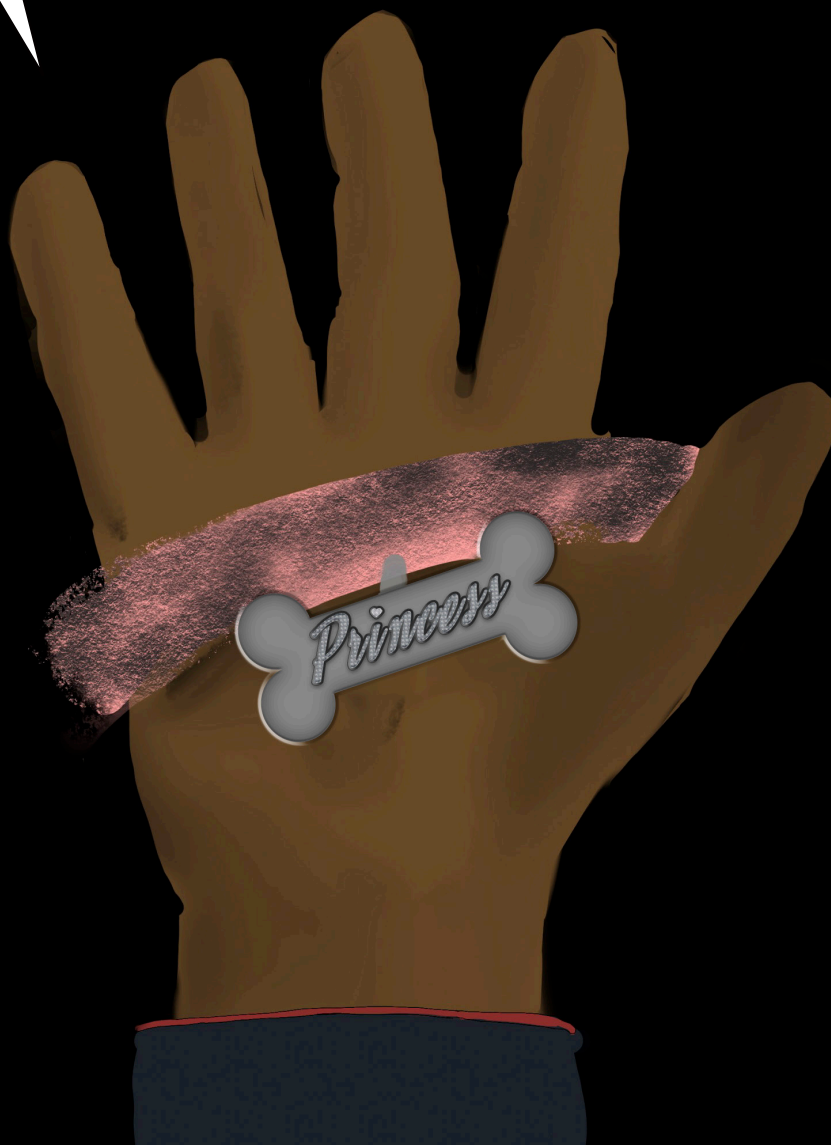


Twenty years later at the School of Infantry-West,
Camp Pendleton, California . . .

Good morning, SOI-West. Congratulations to you and your machine battle buddies. I never thought the Marine Corps would assign every infantry Marine a combat support robot, but here we are. Treat him, her, it . . . or whatever you name it, well. Many of you know my story, but I'll tell it again since you brought me back. That's your own damn fault. We figured out the hard way that the key to human-machine teaming isn't just about trust . . . it's also about love. The type of love that comes deep from your heart. Sort of like the love a child might have for their first bike. I know it sounds weird, but let me explain.



She was always a good dog and she brought our squad together in so many ways. I hated her at first . . .



NO BETTER FRIEND

Discussion Questions:

1. Pretend you are Gunnery Sergeant Stevens. If you knew that Sergeant Cooper had been attacked and traumatized by a robot dog, would you order him to work with XD-8675-309? What does Cooper's prior trauma mean to you?
2. The Marines placed a pink collar with the name of "Princess" on the XD robot dog. What cultural attitudes does this action reflect in the Marines?
3. Can you imagine a fully autonomous robot serving in a Marine Corps rifle squad? Why or why not?
4. By the end of the story, Cooper seems to have developed an emotional bond with XD-8675-309 much like someone does with a pet. Is this believable? Can individuals develop these types of sentiments with machines?
5. Imagine if a robot dog's combat memory is backed up and uploaded into the cloud. Would a Marine still feel sentimental about the physical destruction of the machine? Why or why not?

Meet the Team

“Just the FACTs”

Story by:

**Lieutenant Colonel Jeremy Glauber, USA; Major Jared A. Cooper, USMC;
and Major Ian T. Brown, USMC**

Lieutenant Colonel Glauber is a Special Forces officer in the U.S. Army with more than 23 years of service. He served as a policy and strategy advisor in his two most recent assignments to NATO at the NATO Special Operations Headquarters (NSHQ) in Mons, Belgium, and the Allied Rapid Reaction Corps (ARRC) in the United Kingdom. He received a master of operational studies from the Marine Corps School of Advanced Warfighting (SAW), a master of policy management from Georgetown University, and a bachelor of science from Xavier University (OH). He currently serves the Krulak Center as the Marine Corps University Special Operations Chair. He is married with two children.

Major Cooper is an O802 artillery officer with a love of the outdoors, powerlifting, and anything science fiction and fantasy. He joined the Destination Unknown team last year, contributed to his first story this year, and is currently serving as the outreach and operations officer at the Krulak Center, Marine Corps University. He is a longtime fan of the *Witcher* novels and video games and is excited to support a grassroots movement to further hone the Marine Corps's cognitive edge.

Major Brown is a Sikorsky CH-53E Super Stallion helicopter pilot currently serving as the operations officer of the Brute Krulak Center for Innovation and Future Warfare. He is a lifelong science fiction and comic book nerd and is slowly introducing his kids to wargaming whether they like it or not. This marks his second authorial contribution to the Destination Unknown series with his first story, “Plan Crimson,” included in the Destination Unknown 2.5 holiday special issue of Winter 2020. He writes a lot of other stuff too and will gladly tell you all about it until the world has changed and the long years of your life are utterly spent. You can't take the sky from me.

Illustrator: Major Stan Zivanovich, USMC

Major Zivanovich is an artillery officer who enjoys ice hockey and cycling, but only to fill the time when he is not drawing. He has been reading comics for 30 years and drawing them for almost as long. He hails from the great Commonwealth of Pennsylvania and is currently serving as the operations officer for 5th Air Naval Gunfire Liaison Company (ANGLICO) in Okinawa, where he lives with his wife, Kaitlyn, and their four children.

“Prezent for Duty: A Story of Leadership through Tragedy in War”

Authors: Cadet First Class Zachary Flash, USAFA; and Cadet First Class Lelyand Cathey, USAFA

Cadet First Class Flash is a native of Atlanta, Georgia, and a member of the graduating class of 2021 at the U.S. Air Force Academy. As a cadet, he was a member of the Academy Scholars Program and majored in foreign area studies with a focus on military strategy. Upon graduation, he began medical studies in the School of Medicine at the Uniformed Services University of the Health Sciences (USUHS). He is passionate about the intersection of medicine, foreign languages and cultures, and military strategy and hopes to explore this further throughout his career. *Destination Unknown* is his first experience with professional creative writing and graphic novels.

Cadet First Class Cathey is from Charlotte, North Carolina, and a member of the graduating class of 2021 at the U.S. Air Force Academy. He majored in general studies with a focus in military and strategic studies. In May 2021, he accepted a commission in the U.S. Army, with aspirations to join the 75th Ranger Regiment. He is passionate about military strategy and history, physical fitness, travel, and the culinary arts.

Illustrators: Cadet First Class Vernon Nazareno, USAFA; and Cadet First Class Abbigayle Weaver, USAFA

Cadet First Class Nazareno is from San Jose, California, and a member of the graduating class of 2021 at the U.S. Air Force Academy. He majored in military and strategic studies. He is prior-enlisted and served as a medic (4N051). In May 2021, he accepted a commission in the U.S. Air Force and joined the Security Forces. He is passionate about military strategy, emergency medicine, law enforcement, and physical fitness.

Cadet First Class Weaver is from Middletown, Ohio, and a member of the graduating class of 2021 at the U.S. Air Force Academy where she majored in legal studies with a minor in philosophy. As a cadet, she was a member of the Moot Court team, International Humanitarian Law team, and the Military Ethics Competition team. In August 2021, she began law school at the University of Dayton, where she is pursuing a Juris Doctor degree. She is passionate about national security law and constitutional law.

“All In”

Author: Midshipman Second Class Jen Sun, USNA

Midshipman Second Class Sun read *Ender's Game* once in seventh grade and thought that was the epitome of science fiction (she was wrong). Now, she reads H. G. Wells and will repeat her mistake. She served as a naval aircrewman on the Grumman C-2A Greyhound and currently attends the U.S. Naval Academy. Her interests include incorporating wargaming into the academy's professional development curriculum and drinking water.

Illustrator: Corporal Cesar Amaya, USMC

Corporal Amaya is a returning illustrator to the *Destination Unknown* series. He is originally from Maryland and currently serves as a supply and logistics specialist for Marine Corps Recruiting Station Des Moines, Iowa. As an amateur artist, he experiments with oil and acrylic paints, clay sculpting, pottery, and digital illustration. Art has been a passion of his since childhood, and he intends to explore different mediums in the future.

“Operation Northern Eclipse”

**Author: Cadet First Class Conner Kirkegaard, USAFA;
and Cadet First Class Dylan Drummer, USAFA**

Cadet First Class Kirkegaard is a cadet at the U.S. Air Force Academy. Kirkegaard is a native of San Diego, California, and has always been heavily influenced and interested by films and comics. Currently preparing to become a remotely piloted aircraft pilot in the Air Force, Kirkegaard is finishing up his educational career at the Air Force Academy and will be receiving a bachelor of science in military and strategic studies.

Cadet First Class Drummer is currently a senior at the U.S. Air Force Academy. The Northern California native will be heading to Texas for pilot training in the coming years. Growing up, flying for the Air Force was his childhood dream. At the academy, Drummer majored in military and strategic studies, focusing on cadet airmanship development and the future of aerial conflict.

Illustrator: Cadet Third Class Cassidy Bassett, USAFA

Cadet Third Class Bassett is currently a sophomore at the U.S. Air Force Academy. She hails from Hurlburt Field, Florida, and is majoring in meteorology with a minor in Spanish (attempting). She hopes to be a weather officer in the Air Force and eventually transfer to the reserves to be a hurricane hunter. She has dreamed of being an author or an illustrator since she was a child, so she

appreciates the Destination Unknown team giving her this opportunity. She wishes to thank her friends, Ke'Andre and Jacob, for entertaining her for many hours while she learned how to use Photoshop while using Photoshop.

"No Better Friend"

Author: Lieutenant Colonel Adam Yang, USMC

Lieutenant Colonel Yang is a communications officer and original creator of the Destination Unknown series. He is a native of Brooklyn, New York, and his interest in science fiction and fantasy has extended from his childhood to the present day. Today, he serves as a doctoral fellow for the Commandant of the Marine Corps Strategist Program, and is a PhD candidate in the School of International Service at American University. His dissertation investigates the relationship between organizational culture, military strategy, and innovation. As a cofounder of the #EndersGalley innovation community, he is a staunch advocate of grassroots innovation. If you ever need an intellectual sparring partner or innovation ally, email him at: adam.yang@usmcu.edu

Illustrator: Corporal Cesar Amaya, USMC

Corporal Amaya is a returning illustrator to the Destination Unknown series. He is originally from Maryland and currently serves as a supply and logistics specialist for Marine Corps Recruiting Station, Des Moines, Iowa. As an amateur artist, he experiments with oil and acrylic paints, clay sculpting, pottery, and digital illustration. Art has been a passion of his since childhood, and he intends to explore different mediums in the future.

Destination Unknown Staff

Editor: Major Jared Cooper, USMC

Major Cooper is an O802 artillery officer with a love of the outdoors, powerlifting, and anything sci-fi and fantasy. He joined the Destination Unknown team with volume 2 and is currently serving as the outreach coordination officer at the Brute Krulak Center for Innovation and Future Warfare, Marine Corps University. He is a longtime fan of the *Witcher* novels and videogames and is excited to support a grassroots movement to further hone the Marine Corps' competitive and cognitive edge.

Editor: Major Austin Duncan, USMC

Major Duncan was a driving force behind the award-winning *Destination Unknown*, volume 1, as a visionary and editor and contributed to volume 2 as an author. He is a Marine intelligence officer and an information operations planner currently serving at the 11th Marine Expeditionary Unit. He is inspired by the continued pursuit of education and an innovative spirit. He cofounded Ender's Galley as a grassroots innovation platform rooted in the professional military education ecosystem.

Editor: Major Tyler Quinn, USMC

Major Quinn is a returning editor on the staff of *Destination Unknown*, volumes 1 and 2. He claims North Carolina as home, but he was born, raised, and trapped, adventuring all over the world as a military kid. He is the eldest of three in a Marine family. He has always had an interest in comics, movies, and graphic novels. As a self-proclaimed "elder millennial," he grew up on Saturday cartoons such as *Teenage Mutant Ninja Turtles* and *G.I. Joe: A Real American Hero*, Marvel trading cards, and Calvin and Hobbes comic strips. Quinn is a space-trained military police officer and currently serves in III Marine Expeditionary Force on Okinawa, Japan. He is a cofounder of Ender's Galley, a community of interest focused on the information environment.

Editor: Major Sara Wood, USMC

Major Wood returns as an editor, having conquered as an author in the award-winning *Destination Unknown*, volume 1. She hails from Galesburg, Illinois. Her favorite comic book series is *The Sandman* by Neil Gaiman and her favorite science fiction television show is *Battlestar Galactica*. She is an Intelligence officer and Information Operations officer in the Marine Corps Reserves and is currently serving as a Defense Engagement Branch liaison officer at the Marine Innovation Unit (MIU). She is a graduate of the Marine Corps Expeditionary Warfare School and Command and Staff College and previously was the academics officer at the Brute Krulak Center for Innovation and Future Warfare, Marine Corps University.

Editor: Dr. Kyleanne Hunter

Dr. Hunter is a Marine Corps combat veteran with multiple combat deployments as an AH-1W Super Cobra attack pilot. She finished her active duty time in the Marine Corps' Legislative Liaison Office in the House of Representatives. She is an assistant professor of military and strategic studies and director of the Strategy and Warfare Center at the United States Air Force Academy, a senior adjunct fellow at Center for a New American Security, a nonresident fellow at the Brute Krulak Center for Creativity and Future Warfare, an adjunct senior political scientist at Rand, and

the codirector of the Athena Leadership Project. She is chair of the culture and climate line of effort for the Presidential Independent Review Commission on Military Sexual Assault. She holds a bachelor of science in foreign service from Georgetown University's Walsh School of Foreign Service, and a master of arts and a doctorate from University of Denver's Josef Korbel School of International Studies. She was part of the Department of Veterans Affairs inaugural class of "Women Veteran Trailblazers" and named as one of HillVets 100 most influential veterans in 2018. She and her husband reside in Colorado Springs, Colorado.

Editor: Dr. Anthony Pollman

Dr. Pollman is a native of Oconee, Illinois. Growing up deep in the cornfield, he did not have much access to comics. But he did enjoy reading his older brother's *MAD Magazine* and the Sunday funnies (particularly, *The Far Side*), as well as watching Saturday morning cartoons. He recently read Maximilian Uriarte's graphic novels *White Donkey* and *Battle Born* and was both inspired and intrigued by the fusion of art with deep tactical and operational themes. Dr. Pollman is an assistant professor in the Systems Engineering Department at the Naval Postgraduate School, where he teaches courses in combat systems, weapons, and mathematical modeling. He primarily does research in the energy systems domain, but he has wide-ranging, interdisciplinary research interests and maintains meaningful relationships with the Marine Corps. Dr. Pollman is a retired Marine and a veteran of the conflicts in Iraq and Afghanistan.

Writing Mentor: August Cole

Cole is an author exploring the future of conflict through fiction and other forms of FICINT storytelling. His talks, short stories, and workshops have taken him from speaking at the Nobel Institute in Oslo, Norway, to presenting at SXSW Interactive in Austin, Texas, to tackling the "Dirty Name" obstacle at Fort Benning, Georgia. With Peter W. Singer, he is the coauthor of the best seller *Ghost Fleet: A Novel of the Next World War* (2015) and *Burn In: A Novel of the Real Robotic Revolution* (2020). He also works on creative foresight at SparkCognition, an AI company, and is a nonresident senior fellow at the Brent Scowcroft Center for Strategy and Security at the Atlantic Council.

Writing Mentor: Mark Sable

Sable is a writer for comics, film, and television, best known for such creator-owned comics as Image Comics' *Graveyard of Empires* and Boom! Studios' *Unthinkable*. Sable is also a writing professor. After teaching for five years at the Writers Boot Camp in Santa Monica, California, in 2013,

he became one of the founding faculty members of the School of Visual Arts master's in visual narrative program, where he currently teaches Creative Script and Digital Storytelling (the latter with comics artist Jim Rugg). Two new graphic novels, *The Dark and Dracula: Son of the Dragons*, will be published in late 2021, and his series *Godkillers* was released in 2020.

Illustration Mentor: Gabriel Pons

Pons returns as an illustration mentor from the previous volumes of *Destination Unknown*. Pons loves art, design, comics, and skateboarding and since the age of 13 has been pushing his abilities in each of those fields. He and his wife, Scarlett, own PONSHOP Studio and Gallery—a multifaceted storefront in Fredericksburg, Virginia. They operate their business with the belief that creativity fosters a stronger community and share their passion by teaching art classes ranging from skateboard and graphic novel design to street art and graffiti. Pons works with clients in a range of mediums, from custom paintings to site-specific murals and installations.

Designer: Jose Esquilin

Esquilin returns as the designer for the *Destination Unknown* series. He is a retired military veteran with 26 years of active service as a medical professional and enlisted leadership. Upon retirement in 2013 he pursued a career path change and was hired as a graphic designer for the Center for Advanced Operational Cultural Learning (CAOCL) until joining Marine Corps University Press in 2019. Additionally, as a working photography professional, his talents have been resourced in various MCUP projects.

Glossary

CASEVAC—casualty evacuation

COA—course of action

CoS—chief of staff

EMP—electromagnetic pulse

FOB—forward operating base

LAV—light armored vehicle

MEDEVAC—medical evacuation

R&R—rest and recuperation

Sansō—Japanese Air Force, enlisted paygrade 4

SOI-West—School of Infantry-West

XD-8675-309—experimental dog (XD), serial number 8675309

WOULD YOU LIKE TO KNOW MORE?

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