

SILENT RUIN

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ARMY CYBER
INSTITUTE
AT WEST POINT

BUILDING A BETTER, STRONGER AND MORE SECURE FUTURE FOR OUR ARMED FORCES

Science Fiction Prototypes are science fiction stories based on future trends, technologies, economics and cultural change. The story you are about to read is based on threatcasting research from the Army Cyber Institute at West Point and Arizona State University. Our story does not shy away from a dystopian vision of tomorrow. Exploring these dark regions inspires us to build a better, stronger and more secure future for our Armed Forces. Our goal is to encourage individual action and motivate new explorations and research.

Technology is evolving faster and faster ... but our military doctrine, organization, training, leadership, personnel, and education models are struggling to keep the same pace. Therefore, how do we inspire military innovation? Even the 1920s and 1930s U.S. military was able to successfully innovate with low military budgets and limited support which ultimately created huge impacts in World War II.

What if our adversaries have learned the lessons on military innovation over the last century and applied them to the future battlefield? What if they are embracing cyber and electronic warfare in their main order of battle? What if they are willing to incorporate change into their organizations? How might we fare against them on a future battlefield? How are you helping or hindering military innovation?

Lt. Col. Natalie Vanatta
U.S. Army, Cyber

SILENT RUIN

Our Science Fiction Prototype begins in the year 2027. Romania and Moldova have united, crossing a red line for Russia. Tensions are high as both NATO and Russia conduct training missions on each side of the border. When both forces' front-line autonomous forces deviate from their submitted plans... the robots engage... triggering a full conflict.

The fight is fast. With superior EW capabilities, the Russians launch a cyber attack that jumps the autonomous forces and targets the manned tanks.

Russian tanks roll into the city and converge on the US embassy...



AFTER YEARS OF NEGOTIATIONS, ROMANIA AND MOLDOVA UNITE... CROSSING A RED LINE FOR RUSSIA.



ENHANCED FORWARD PRESENCE STANDS AT THE READY...



RUSSIA MASSES PEACEKEEPING FORCES IN TRANSNISTRIA FOR A SNAP EXERCISE...



THE FIRST ATTACK: RUSSIAN FRONT LINE AUTONOMOUS DRONES LAUNCH AN ELECTRONIC WARFARE ATTACK...



AMERICAN OBSERVATION DRONES GO DOWN... THEIR CONTROLLERS LOSE SIGNAL...



LOSING SIGHT OF THE FRONT LINE... TANKS ARE CALLED IN TO INVESTIGATE...



JUST FOURTEEN MORE HOURS 'TIL THAT WEEKEND PASS... NOT THAT I'M COUNTING...

THIS LOCK DOWN HAS BEEN NUTS... IT'S LIKE WE CAN'T EVEN FART WITHOUT A DIRECT ORDER...

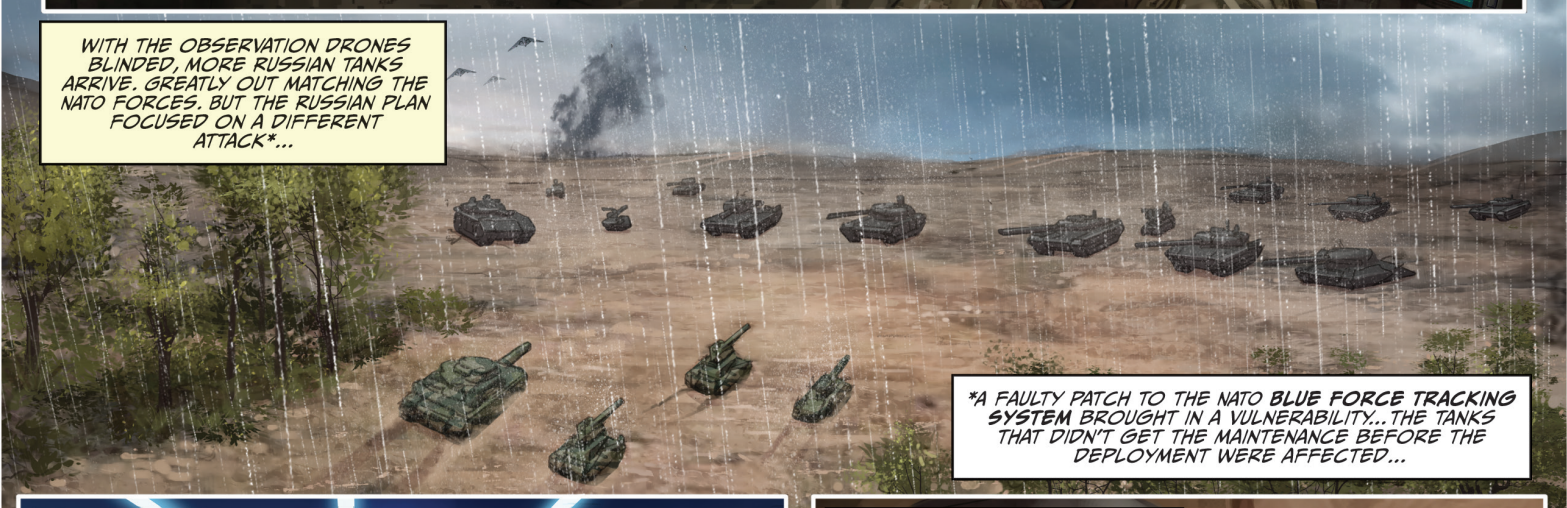


BLUE 2 THIS IS BLUE 1--JUST GOT A CALL FROM BLACK 6 THEY'VE LOST CONTACT WITH OP 1... I NEED YOU TO MOVE FORWARD TO OP 1'S LOCATION AND CHECK ON SENTRY GOLD 2.

BLUE 1... ARE YOU KIDDING ME? THIS AGAIN... WE WERE JUST UP THERE...

BLUE 2 ROGER... NEED YOU TO GO CHECK IT OUT AGAIN...

WITH THE OBSERVATION DRONES BLINDED, MORE RUSSIAN TANKS ARRIVE, GREATLY OUT MATCHING THE NATO FORCES. BUT THE RUSSIAN PLAN FOCUSED ON A DIFFERENT ATTACK*...



*A FAULTY PATCH TO THE NATO BLUE FORCE TRACKING SYSTEM BROUGHT IN A VULNERABILITY... THE TANKS THAT DIDN'T GET THE MAINTENANCE BEFORE THE DEPLOYMENT WERE AFFECTED...



RUSSIAN CYBER COMMAND LAUNCHES A SECOND WAVE TO DISABLE THE NATO TANKS...

ЗАПУСТИТЬ ЕГО СЕЙЧАС!*

*LAUNCH IT NOW!



THE NATO FORCES SIT UNAWARE THAT THEY WERE BEING ATTACKED AND DISABLED.

I CAN'T SEE ANYTHING... MY THERMAL IMAGING IS DOWN!

THE FIRST SHOT IS FIRED: A RUSSIAN AUTONOMOUS VEHICLE SLIPS PAST THE SENTRY GUNS WITH AN ANTI-TANK GUIDED MISSILE AND ATTACKS BLUE 2.



WE'VE BEEN HIT! WHAT THE HELL?

SGT, COUNTER MEASURE JUST WENT OFF AT THREE O'CLOCK.

I CAN'T SEE ANYTHING. IT'S ALL WASHED OUT!

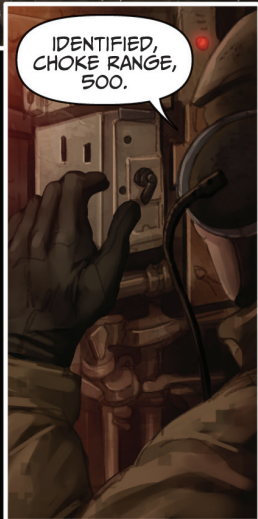
RUSSIA'S AUTONOMOUS TANKS SLAM INTO NATO FORCES, CATCHING THEM UNPREPARED...



GUIDONS, BLACK 6: WEAPONS FREE, ENGAGE ALL TARGETS, OUT.



GUNNER, SABOT, TANK, CHOKE.

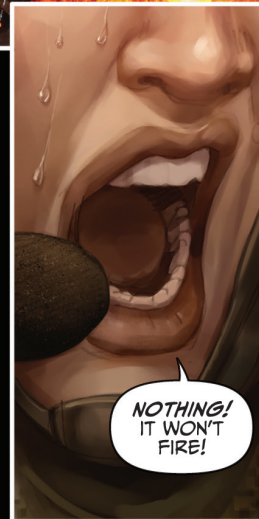


IDENTIFIED, CHOKE RANGE, 500.



UP!

FIRE AND ADJUST.



NOTHING! IT WON'T FIRE!



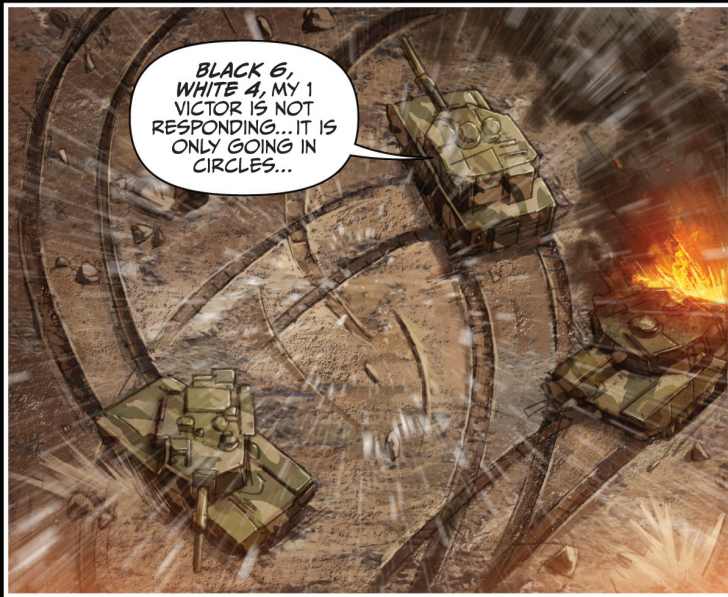
GO TO MASTER BLASTER, WOODY, GET US THE HELL OUT OF HERE.



BLACK 6,
RED 1--THEY'RE
THROUGH MY BRAVO
SECTION.

LET'S GO,
WOODY!

IT'S NOT
RESPONDING...
I CAN'T CONTROL
IT!



BLACK 6,
WHITE 4, MY 1
VICTOR IS NOT
RESPONDING...IT IS
ONLY GOING IN
CIRCLES...



BLUE 2 THIS IS
BLACK 6...WHAT'S
WRONG?

CONTROLS NOT
RESPONDING...
**WE'RE
FLIPPING!**



**OH
MY GOD...
CAN'T GET
OUT!**



RED 4
THIS IS RED 1...
NO COMMUNICATIONS
WITH BLACK 6... SWITCH
TO BATTALION COMMAND
NET AND MAKE CONTACT
WITH THE BC...



I THINK...
I THINK...
BLACK 6 IS
GONE!



RUSSIAN FORCES
CONVERGE ON THE
U.S. CONSULATE.



THE END

AFTERWARD

While we may be reluctant to implement autonomous capabilities, there is no doubt our adversaries will take every opportunity to outpace us. If we fail to harden our own systems while they develop innovative means to counter the proliferation of advanced autonomous systems, this threatens to render the world's most technologically advanced force its most vulnerable.

Lt. Col. J. Lane
U.S. Army

Tanks flip, sights fail, tubes jam, and steering breaks today on M1A1s. What if tomorrow it is not just environmental and maintenance factors you need to worry about ... but also a potential digital adversary affecting your weapons platform?

In the future, cyber and electronic warfare operations and capabilities can share our view of reality. How will we protect our forces and maintain ground truth?

In a world of inter-connected devices and systems, a vulnerability in one can lead to devastating consequences in another. Are you doing your part to protect your digital systems? Are you really aware of your actions and their potential consequences?

Are we innovating now to be prepared to meet the adversary of the future? Are these adversaries investing in new systems today so that we will be outmatched tomorrow?

How do we need to evolve as an organization to ensure that the final graphic panel never becomes true? Multi-domain battle is a step in the correct direction. It will help us drive change and design a future force that can fight and win in contested domains.

