

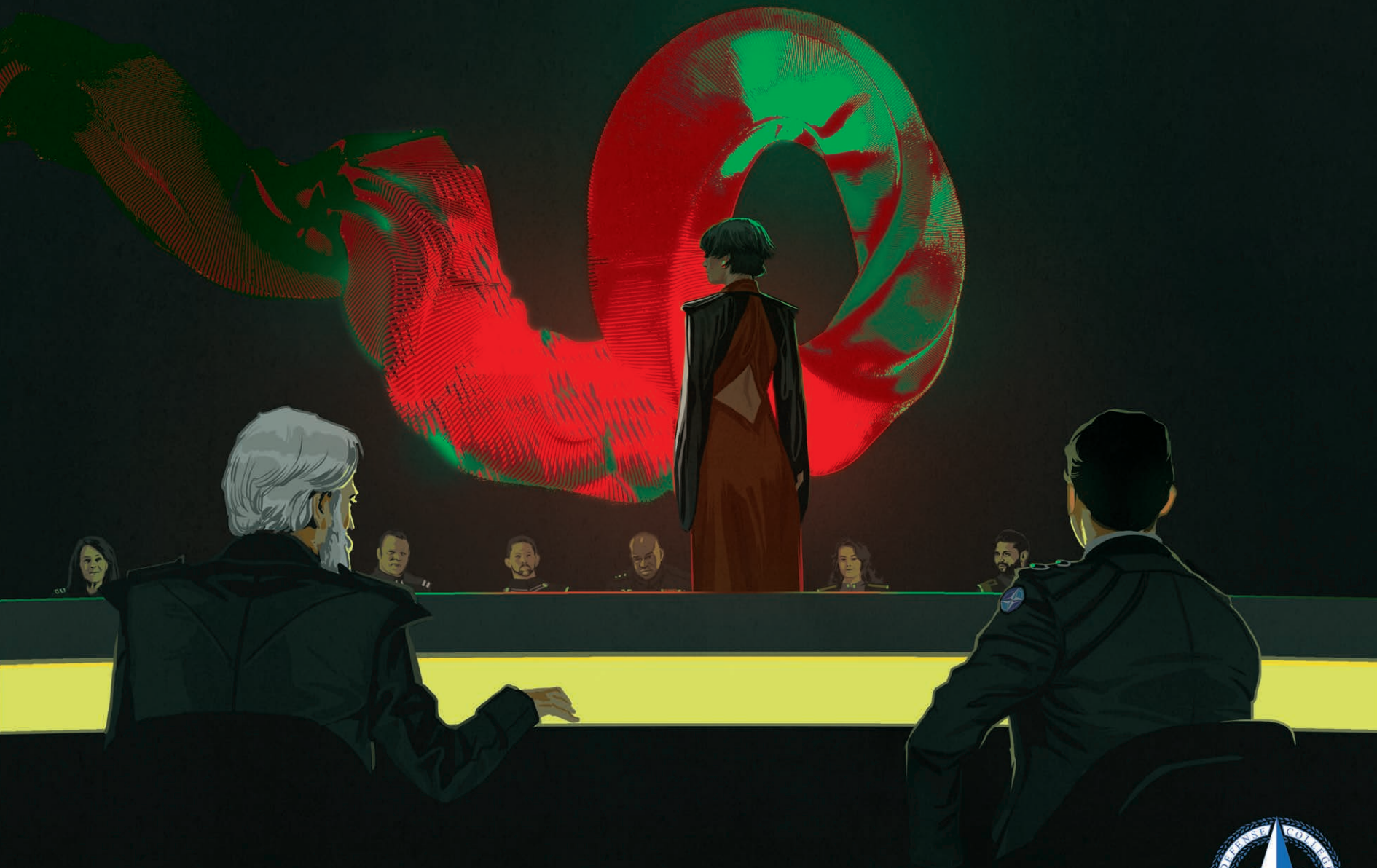
Jaouen Salaün

Florence Gaub

NATO 2030

Nicolas Minvielle

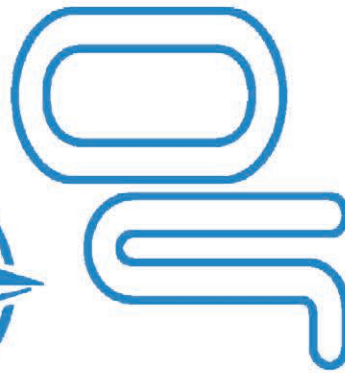
Roxane Montfort



Jaouen Salaün



Florence Gaub



Nicolas Minvielle

Roxane Montfort

Foreword

Max A.L.T. Nielsen, Commandant, NATO Defense College

The future is never here – and yet, it always is. More than half of our waking moments are spent worrying, hoping, thinking about a time that is yet to come. In the military, this number might be even higher as our task is by definition to deter and prepare for worst-case scenarios.

And yet, as defence institutions we are not making enough use of the one genre that is the perfect fit for all these thoughts: science fiction. Often called the literature of ideas, scientification, speculative fiction or science fantasy, science fiction has been, for over 150 years (if not longer), the realm where humans play with innovation, think through the implications of technology, and imagine all sorts of disruptive events. When people dismissively say “that is science fiction,” they have it the wrong way around: science fiction is quite skilled at imagining things that can happen. *Destination Moonbase Alpha*, a 1970s series I marvelled at as a young man, featured flat screens, sliding doors and talking computers – none of which we find outrageous today. And while the lunar base in which it is set is yet to come, states around the world are feverishly working on it. Jules Verne, the French author, is no longer even widely viewed as a science fiction author as many of his predictions, from the submarine to the internet, have materialized.

It is precisely this predictive capability of science fiction we wanted to harness with *NATO 2099*. Written 75 years after the Alliance’s founding, and set 75 years into the future, it is a story that not only inspires, but also encourages us to face the challenges head on – what is called the Stockdale paradox. Named after US Navy Admiral Stockdale, it invites us to “never confuse faith that you will prevail in the end — which you can never afford to lose — with the discipline to confront the most brutal facts of your current reality, whatever they might be.” Put more amusingly and in the words of my favourite comic figures, Calvin and Hobbes: “The problem with the future is that it keeps turning into the present.” Facing this reality is the first step in shaping the future – after all, this is our role.





Introduction

Florence Gaub, Director, Research Division, NATO Defense College

NATO 2099 is an adventure story – but making it, too, was an adventure. This graphic novel is not the idea of one person, but indeed, many: 33 authors from all over the Alliance plus 2 partner states contributed essays, science fiction stories from member states were consulted, and three lead authors weaved it all together and made it what it is today, a collectively imagined future for NATO.

That we chose to do this in a format currently even less used in Western defence circles than science fiction, i.e. the graphic novel, might be surprising, yet it makes perfect sense. Visualizing the future brings it to life even more than just words, which is precisely why the first science fiction comic appeared as early as 1929 in *Amazing Stories*, the American science fiction magazine. Today, the power of the drawn picture is harnessed by some also for military purposes – such as the US Army in its Army Game Studio, or Japan, which published its Defence White Paper also entirely as a manga¹. Russia, too, is now using comics for propaganda purposes in the context of its invasion of Ukraine (perhaps unsurprisingly, NATO officials are depicted rather unflatteringly in these books). This renewed penchant for the drawn picture is that they are not “just” for children. In the United States, 25% of comic readers are baby boomers, and the overall market is set to grow substantially in the coming years as readers do not outgrow their comics, but take them along with them.

This story is therefore one for all ages: it tells the future beyond the future.

¹ Guidebook to the Ministry of Defense, 2019, <https://www.mod.go.jp/j/kids/comic/e/index.html#:~:text=%22Guidebook%20to%20the%20Ministry%20of,understanding%20especially%20among%20young%20generation.>



CHARACTERS



Frankie Thorsø, aged 30, holds a PhD in the History of Sea Wars. She works for **The NATO Defense College**. Her personal AI is Winston.



Karl Hammond, aged 72, **Supreme Allied Commander Space (SACSPACE)**, a position created in 2083. His personal AI is Giles.



Sandy Masala, aged 95, even though anti-aging medication makes her appear 55. She is the **Secretary General of NATO**.



Patryk Chatzimilakis, aged 59, **Assistant Secretary General for Prediction at NATO**. He is one of the few experts on NATO's War Predictor.



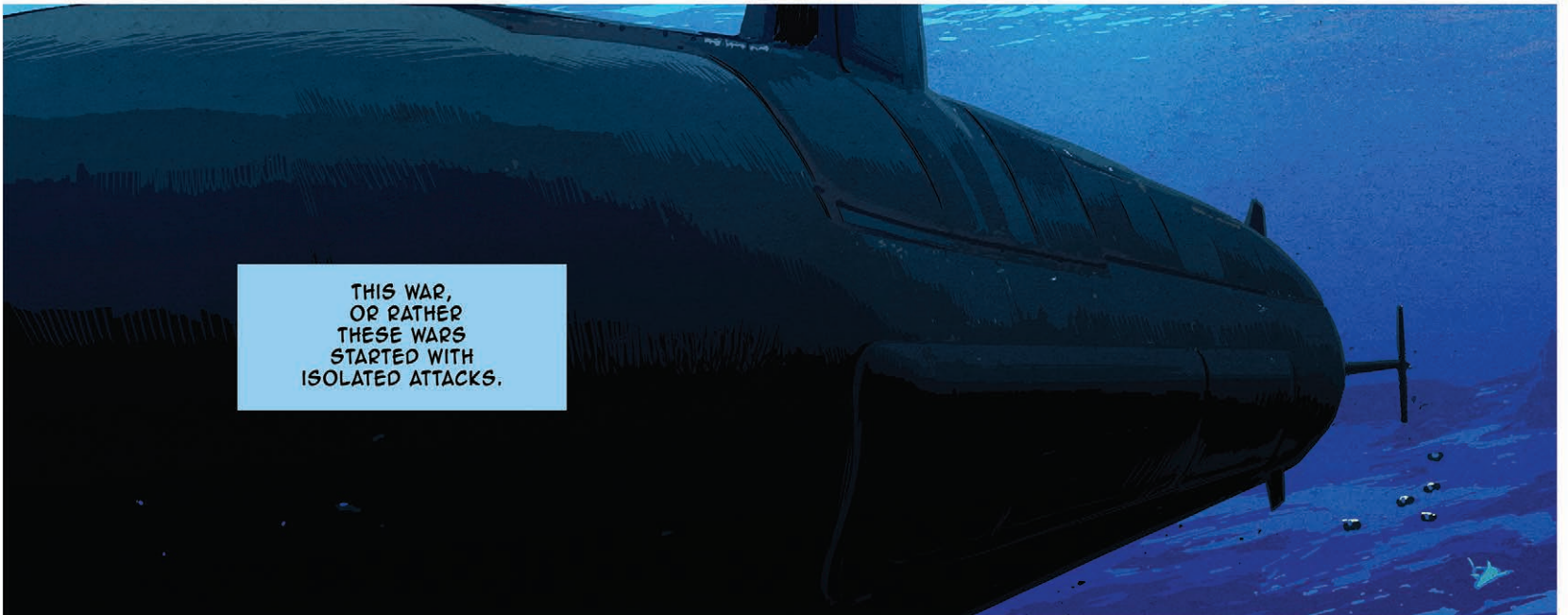
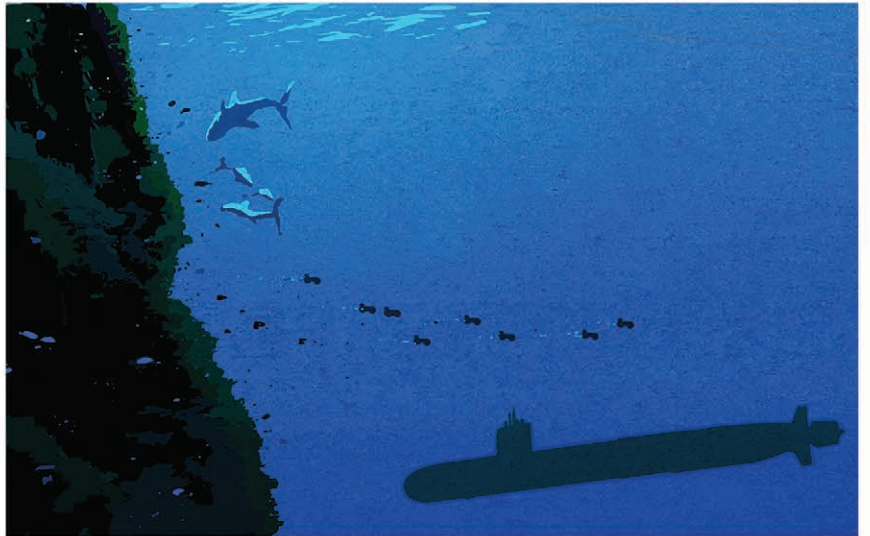
Orion Garcia, aged 46, **Special Reconnaissance Unit (SRU) agent**. He is the son of Sandy and her 3rd husband. His personal AI is Sidé.

THIS YEAR, NATO CELEBRATES ITS
150TH ANNIVERSARY.
NEVER HAS ITS EXISTENCE SEEMED SO
IMPORTANT.

TODAY, IN 2099,
CONFLICT IS BREWING IN SPACE,
NOT UNLIKE THE SEA WARS.



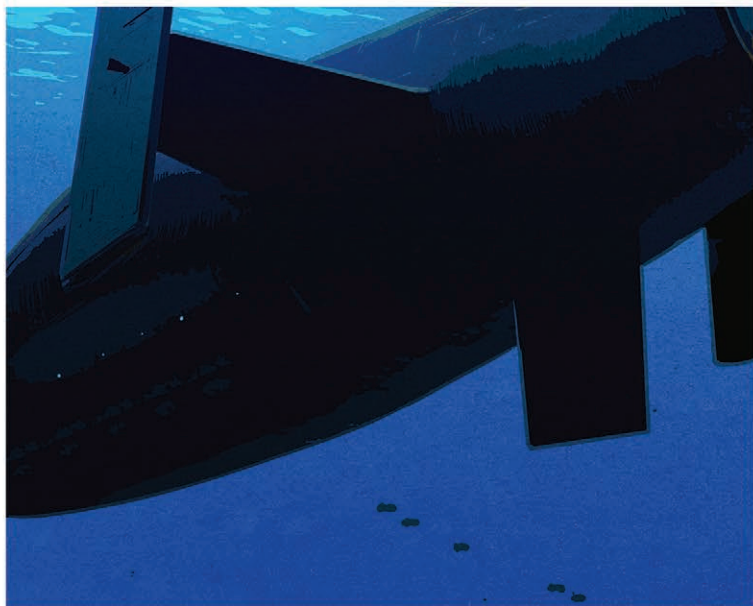
BLACK SEA
FEBRUARY 2049.



THIS WAR,
OR RATHER
THESE WARS
STARTED WITH
ISOLATED ATTACKS.



AS THEY ESSENTIALLY
TOOK PLACE AT SEA,
THEY WERE CALLED
THE "SEA WARS".





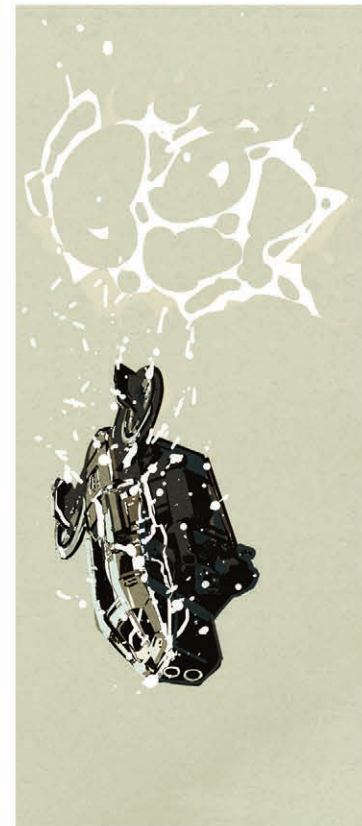
THE RULES OF WAR
HAD CHANGED.

AIRCRAFT CARRIERS, DESTROYERS
AND EVEN SUBMARINES,
THOSE 20TH-CENTURY MASTERS
OF THE SEA,
HAD BECOME EASY TARGETS.
THEIR SIZE, WHICH HAD ONCE BEEN
THEIR STRENGTH, HAD BY THEN
BECOME THEIR ACHILLES HEEL.

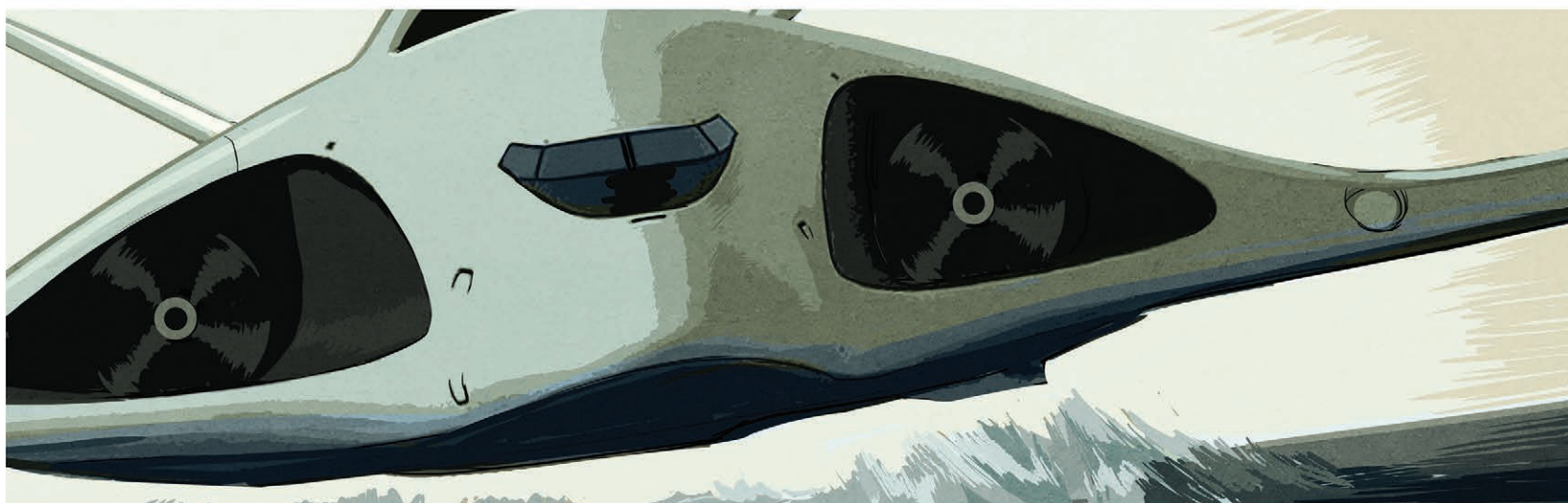


WAR WAS WAGED
BY A FEW MEN
AND BY TECHNOLOGY.

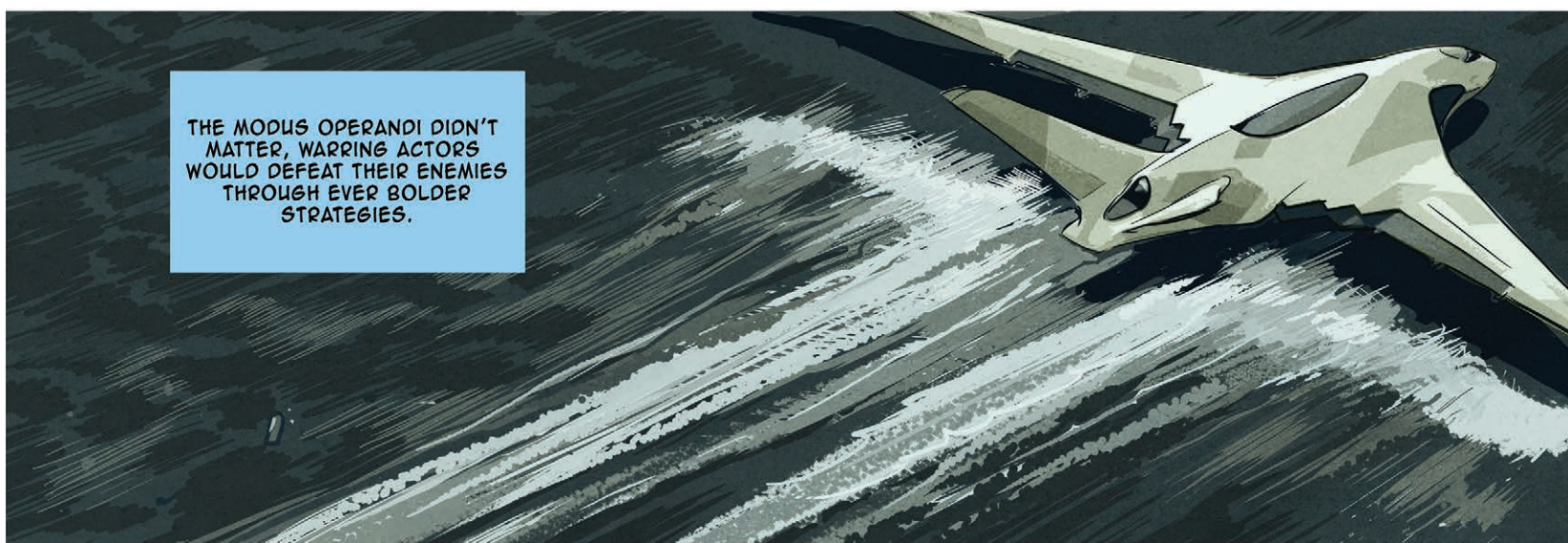




RATHER UNEXPECTEDLY,
OBJECTS FROM THE PAST
WERE MAKING A COMEBACK,
AUGMENTED BY
THE LATEST TECHNOLOGIES.



THE MODUS OPERANDI DIDN'T
MATTER, WARRING ACTORS
WOULD DEFEAT THEIR ENEMIES
THROUGH EVER BOLDER
STRATEGIES.





DECEMBER 2054.
ANTARCTICA.

BY THEN
NO VESSEL WAS
ABLE TO HIDE.



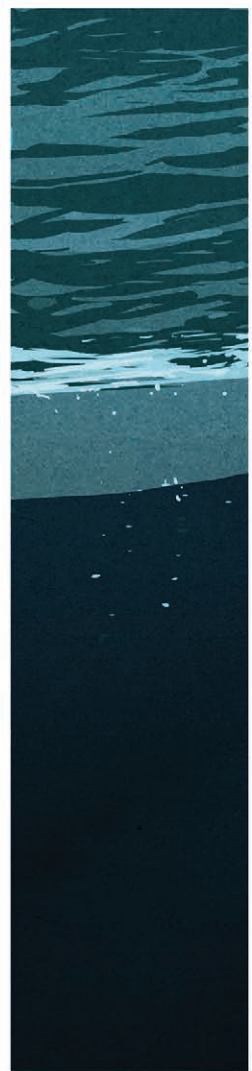
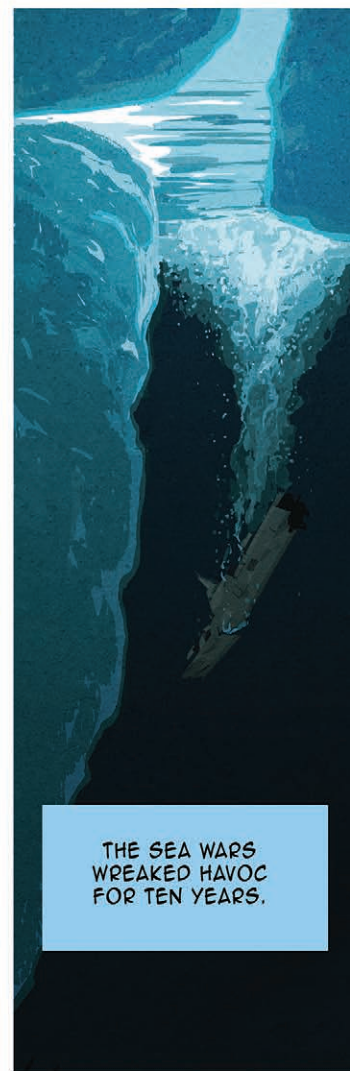
ALL AREAS,
HOWEVER REMOTE,
WERE THE SCENE
OF DISORDERLY FIGHTING.



SATELLITE COVERAGE
MADE ALL DOMAINS TRANSPARENT
AND TECHNOLOGY ENABLED
A FEW VALIANT AND WELL-EQUIPPED
MEN TO FIGHT STATE FORCES
ON ALMOST EQUAL TERMS.



A FEW SMALL,
OVERARMED VESSELS
HAD THE ABILITY
TO ACT.

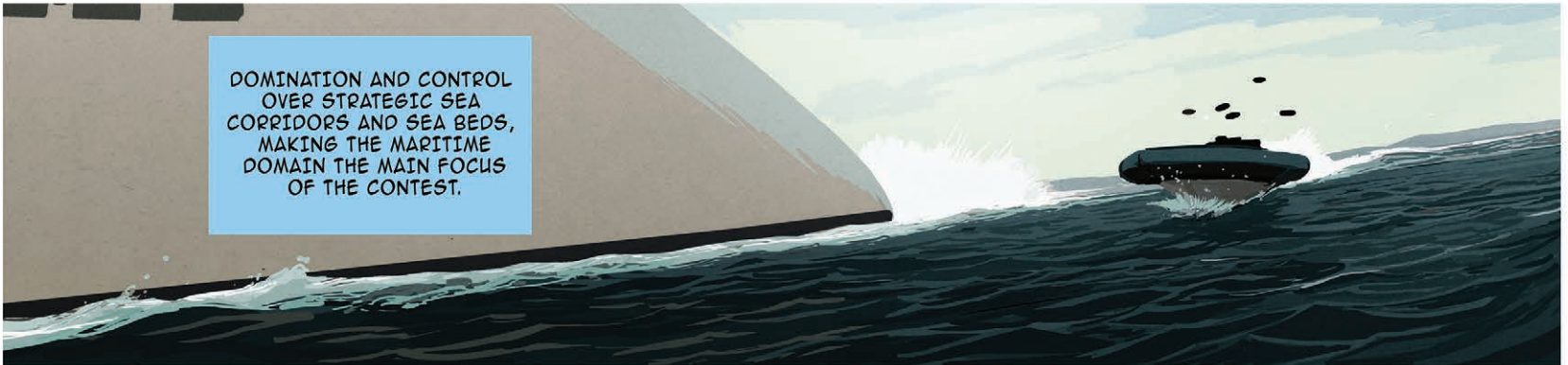




MAY 2057.
THE ENGLISH
CHANNEL.



THESE CONFLICTS
WERE PURELY ABOUT
ONE OBJECTIVE.



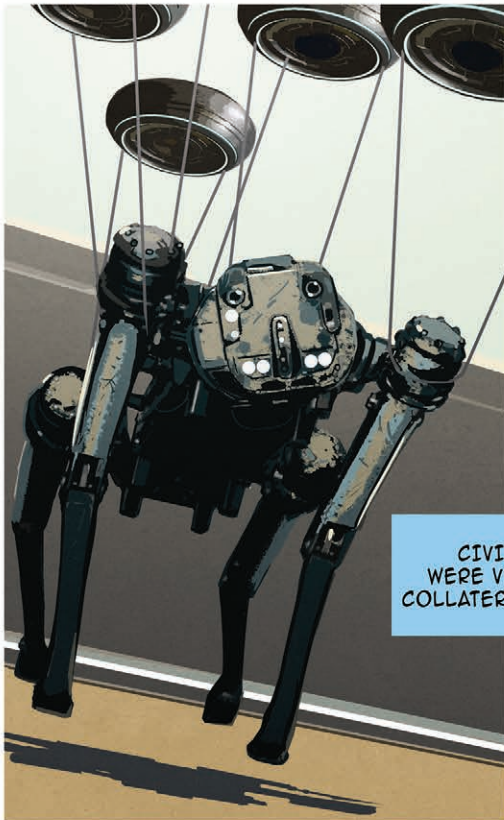
DOMINATION AND CONTROL
OVER STRATEGIC SEA
CORRIDORS AND SEA BEDS,
MAKING THE MARITIME
DOMAIN THE MAIN FOCUS
OF THE CONTEST.



ULTIMATELY FOR
COMMERCIAL AND
INFORMATIONAL
SUPERIORITY,
FOR POWER.



THOSE INVOLVED
BECAME EVER MORE
BRAZEN AND
VIOLENT.



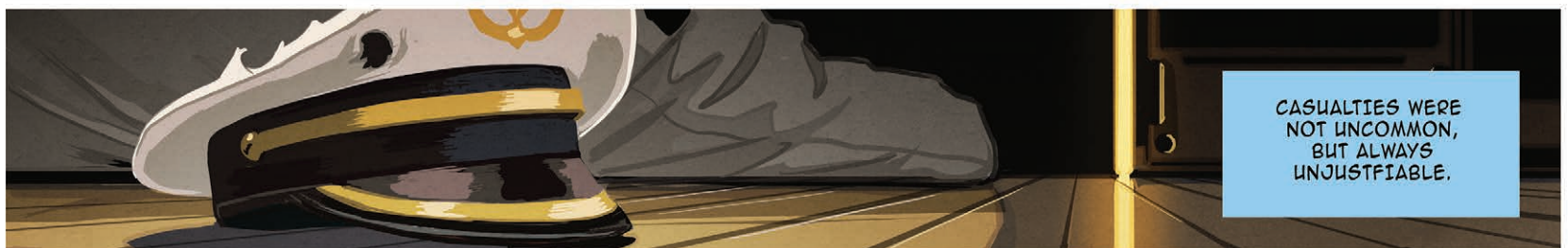
CIVILIANS
WERE VIEWED AS
COLLATERAL DAMAGE.





IN THE BEST-CASE SCENARIO, THESE ATTACKS ENDED WITH THE PAYMENT OF RANSOMS FOR POLITICAL MOTIVES.

IN THE WORST-CASE SCENARIO, THEY ENDED IN TRAGEDY.



CASUALTIES WERE NOT UNCOMMON, BUT ALWAYS UNJUSTIFIABLE.



HOLY ISLAND, SCOTLAND.

SUMMER HOLIDAYS WERE REGULARLY MARRED BY SUCH ATTACKS.

AS A RESULT, SOME COMPANIES INCURRED HUGE LOSSES AND TOURISM GROUND TO A HALT.

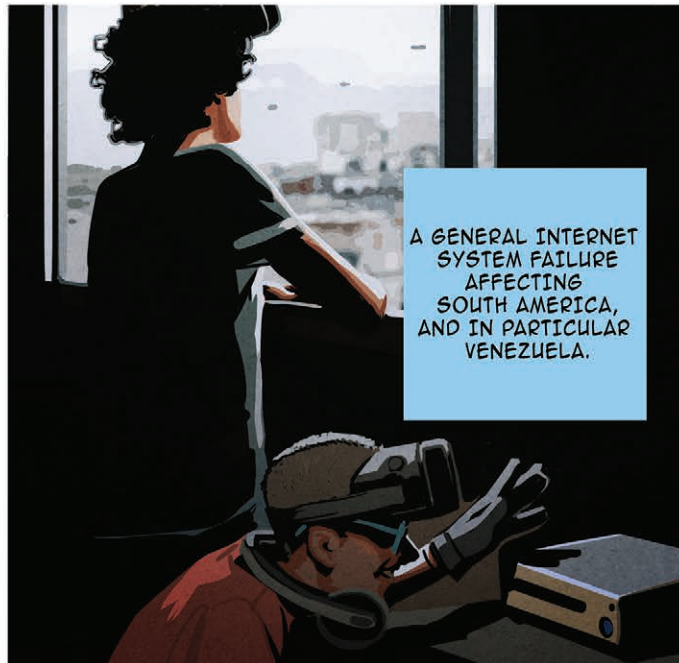


CARACAS,
VENEZUELA.
SEPTEMBER
2059.

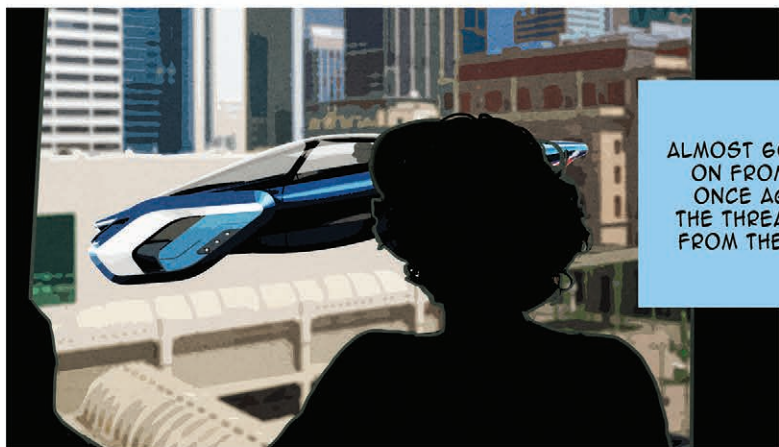
THAT ONE EVENT WAS
THE STRAW THAT
BROKE THE CAMEL'S
BACK AND PUSHED
THE SUPERPOWERS
TO REACT...



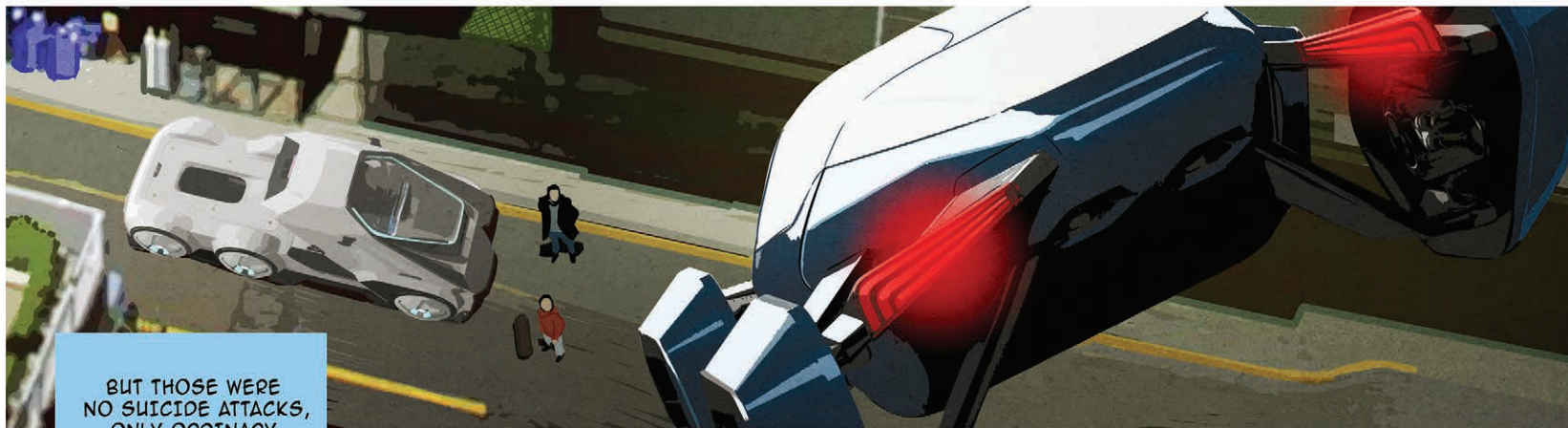
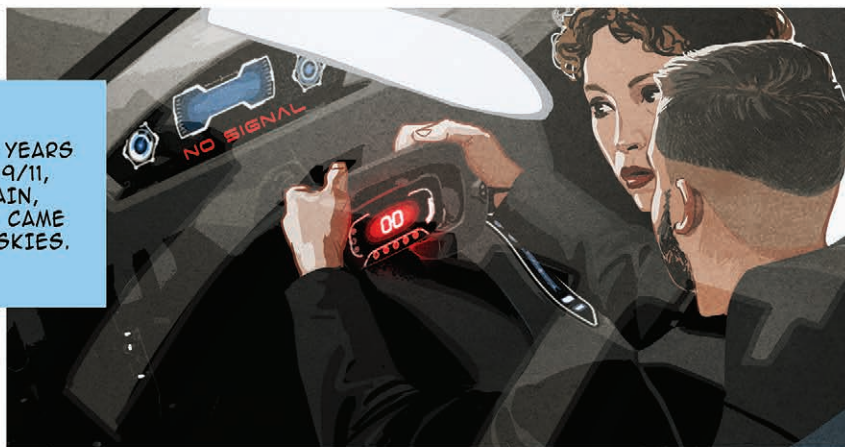
AN INCIDENT
THAT COULD HAVE
HAPPENED ANYWHERE,
AND SERVED AS
A WARNING.



A GENERAL INTERNET
SYSTEM FAILURE
AFFECTING
SOUTH AMERICA,
AND IN PARTICULAR
VENEZUELA.



ALMOST 60 YEARS
ON FROM 9/11,
ONCE AGAIN,
THE THREAT CAME
FROM THE SKIES.



BUT THOSE WERE
NO SUICIDE ATTACKS,
ONLY ORDINARY
CITIZENS CAUGHT
BY SURPRISE,
UNABLE TO FLY
THEIR AIRCRAFT
WITHOUT THEIR USUAL
AI ASSISTANCE.



SO ON THAT DAY,
VEHICLES
SUDDENLY STARTED
RAINING DOWN ON
UNSUSPECTING
POPULATIONS.



FIRES WERE RAGING EVERYWHERE.



HELPLESS PEOPLE RAN TO SHELTER, WAITING FOR THESE HUMAN MISSILES...



...TO STOP DROPPING FROM THE SKY.

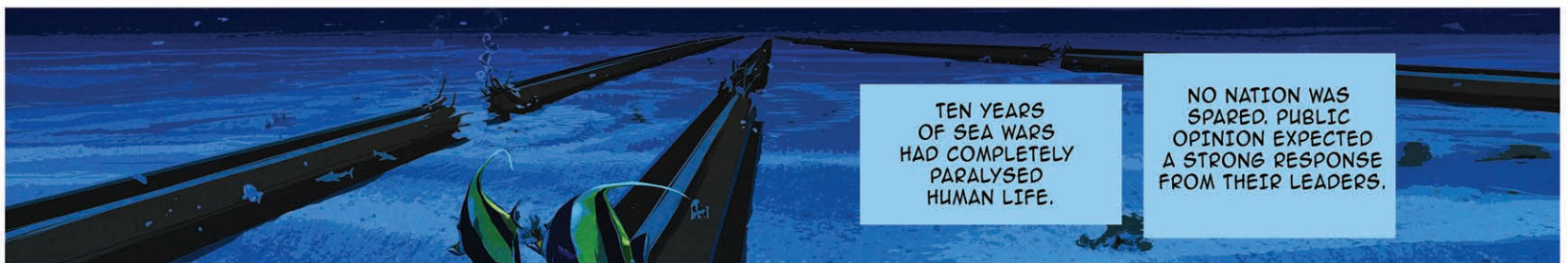


WHOLE CITIES WERE ABLAZE.

SOMEWHERE IN THE CARIBBEAN SEA, HIGH-SPEED CABLES HAD BEEN SEVERED,

PLUNGING THE COUNTRY INTO TOTAL BLACKOUT.

WITH THE HELP OF THE INTERNATIONAL COMMUNITY, VENEZUELA LICKED ITS WOUNDS AND GOT THE SYSTEM UP AND RUNNING AGAIN. BUT THE MESSAGE WAS LOUD AND CLEAR.



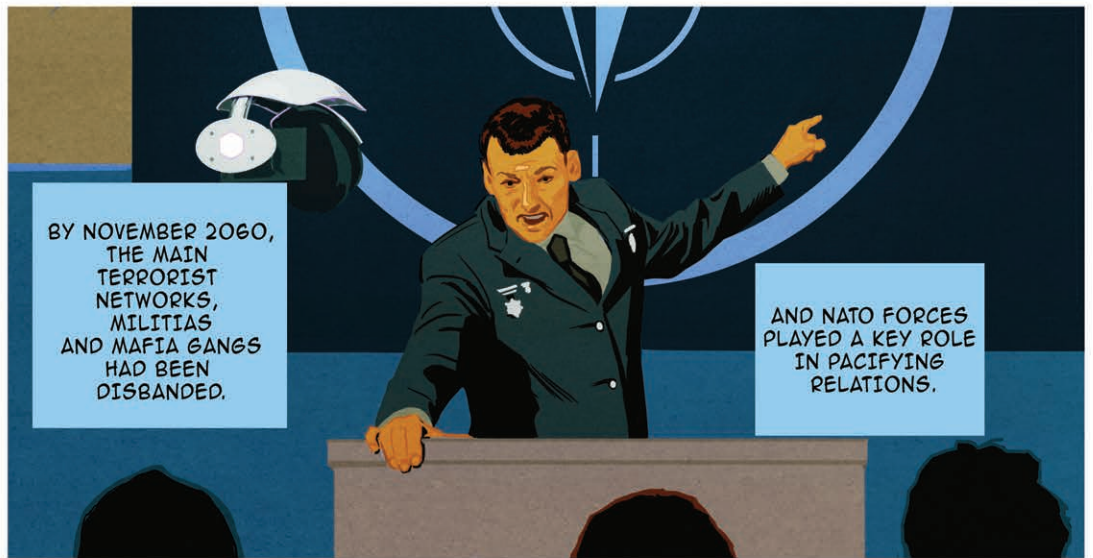
TEN YEARS OF SEA WARS HAD COMPLETELY PARALYSED HUMAN LIFE.

NO NATION WAS SPARED. PUBLIC OPINION EXPECTED A STRONG RESPONSE FROM THEIR LEADERS.



DETERMINED TO ADDRESS THE CHALLENGE, OFFICIALS FROM THE SUPERPOWERS MET IN MANILA IN JANUARY 2060.

FOLLOWING INTENSE DISCUSSIONS AND UNPRECEDENTED DIPLOMATIC TENSIONS, ALL GOVERNMENTS AGREED THAT RESTORING PEACE WAS ESSENTIAL.



BY NOVEMBER 2060, THE MAIN TERRORIST NETWORKS, MILITIAS AND MAFIA GANGS HAD BEEN DISBANDED.

AND NATO FORCES PLAYED A KEY ROLE IN PACIFYING RELATIONS.



ON A HIGHLY SYMBOLIC DATE, 11 NOVEMBER 2060, ALL THE NATIONS INVOLVED COMMITTED TO LASTING PEACE.

OMEGA BASE,
INTERNATIONAL STATION,
LOWER EARTH ORBIT.
MAY 2099.

THE SEA WARS
EVENTUALLY
DIED DOWN
AND ENDED IN
NOVEMBER 2060.

ON 12 NOVEMBER 2060,
NATO AND
THE NATIONS INVOLVED
GATHERED IN ROME AND
SIGNED A PEACE TREATY.

EVERYONE AGREED THAT
THIS TYPE OF WAR
SHOULD NEVER
HAPPEN AGAIN.

TODAY,
ALMOST FORTY
YEARS ON,
NATO IS WARN...

MUMMY, LOOK
THEY'RE SHOWING
THE WAR.

WAS THERE WAR
WHEN YOU
WERE A CHILD?

NO, MY DARLING,
I WAS BORN
JUST AFTER.

| Time | By | Gate | Status |
|-------|-------|------|---------|
| 02:00 | MOON | A01 | DEPART |
| 02:05 | MOON | B05 | ON TIME |
| 02:10 | MOON | F14 | DELAYED |
| 02:15 | EARTH | G22 | ON TIME |
| 02:20 | MOON | H15 | ON TIME |
| 02:25 | EARTH | A01 | ON TIME |
| 02:30 | MOON | F14 | DELAYED |
| 02:35 | EARTH | G22 | ON TIME |



BUT MUMMY, IS IT TRUE, THERE WILL NEVER BE WAR AGAIN?

OF COURSE NOT, SWEETHEART, NO NEED TO WORRY...



I'M SCARED, MUMMY, I DON'T WANT TO GO TO THE MOON ANYMORE...

NOW, NOW. IT'S GOING TO BE GREAT, WE'LL BE FLYING LIKE BALLOONS!

FRANKIE, YOU NEED TO WALK TO THE BOARDING GATE.

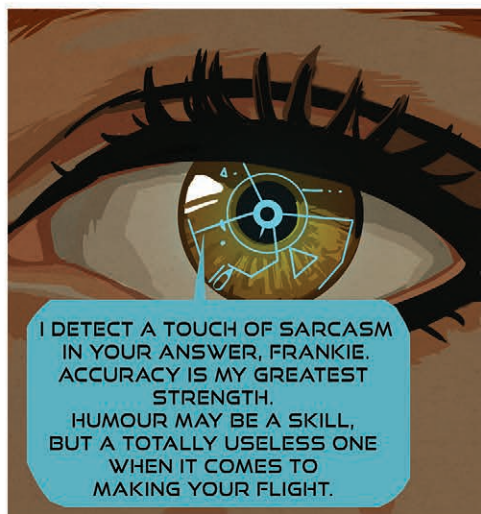


THEY HAVE ANNOUNCED YOUR FLIGHT THREE TIMES. DOORS WILL CLOSE AT 22:17.

7 MINUTES AND 53 SECONDS, ACTUALLY.

WHICH MEANS I HAVE ANOTHER 8 MINUTES, WINSTON!

SORRY, I FORGOT YOU HAD TO BE SO ACCURATE WHEN TALKING TO AI.

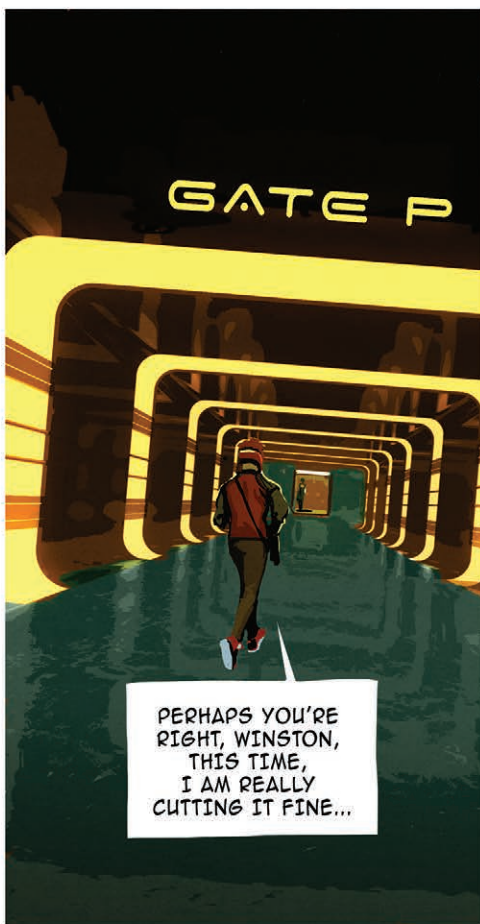


I DETECT A TOUCH OF SARCASM IN YOUR ANSWER, FRANKIE. ACCURACY IS MY GREATEST STRENGTH. HUMOUR MAY BE A SKILL, BUT A TOTALLY USELESS ONE WHEN IT COMES TO MAKING YOUR FLIGHT.



TOUCHÉ, WINSTON! POINT TAKEN...

OH, THERE'S HARDLY ANYONE HERE...



PERHAPS YOU'RE RIGHT, WINSTON, THIS TIME, I AM REALLY CUTTING IT FINE...



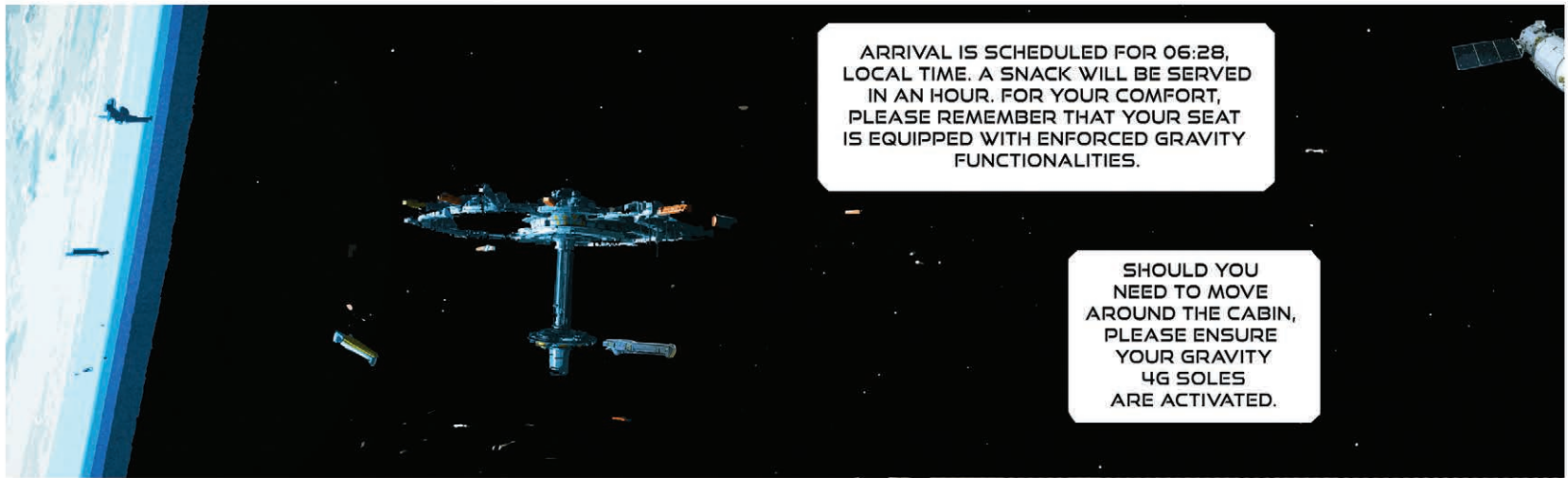
GOOD EVENING...

FRANKIE THORSØ, WE WERE WAITING FOR YOU. WELCOME ON BOARD THE MOON-ROW.



DEAR PASSENGERS, WELCOME ON BOARD THE MOON-ROW, FOR THIS DIPLOMATIC FLIGHT. PLEASE GET READY FOR DEPARTURE.

I WOULD LIKE TO REMIND YOU THAT THIS FLIGHT WILL BE DIRECT TO URBAMOON, AND WILL THEREFORE NOT STOP AT ANY OTHER BASE.



ARRIVAL IS SCHEDULED FOR 06:28, LOCAL TIME. A SNACK WILL BE SERVED IN AN HOUR. FOR YOUR COMFORT, PLEASE REMEMBER THAT YOUR SEAT IS EQUIPPED WITH ENFORCED GRAVITY FUNCTIONALITIES.

SHOULD YOU NEED TO MOVE AROUND THE CABIN, PLEASE ENSURE YOUR GRAVITY 4G SOLES ARE ACTIVATED.



AS WE EXIT THE ORBIT, WE WILL FLY THROUGH AN AREA OF DUST AND SATELLITE DEBRIS. FOR YOUR SAFETY, THIS SPACESHIP IS EQUIPPED WITH THE NEW STANDARTECH SHIELD. HOWEVER, WE KINDLY ASK THAT YOU REMAIN SEATED AS WE CLEAR THAT AREA.

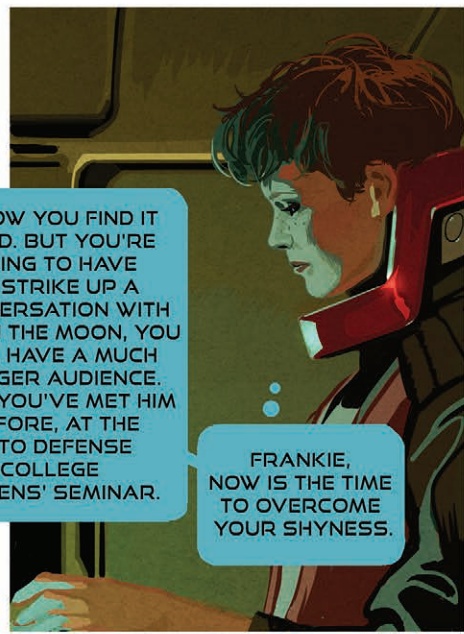


A FEW HOURS LATER....

FRANKIE, GILES, SACSPACE'S AI, IS OFFLINE. WE CAN'T COMMUNICATE.

I KNOW YOU FIND IT HARD. BUT YOU'RE GOING TO HAVE TO STRIKE UP A CONVERSATION WITH HIM. ON THE MOON, YOU WILL HAVE A MUCH LARGER AUDIENCE. ALSO, YOU'VE MET HIM BEFORE, AT THE NATO DEFENSE COLLEGE ANCIENS' SEMINAR.

FRANKIE, NOW IS THE TIME TO OVERCOME YOUR SHYNESS.



GOOD EVENING MISS THORSØ, I THOUGHT FOR A MOMENT YOU WOULD BE TOO NERVOUS TO MAKE EYE CONTACT.

GOOD EVENING, GENERAL...



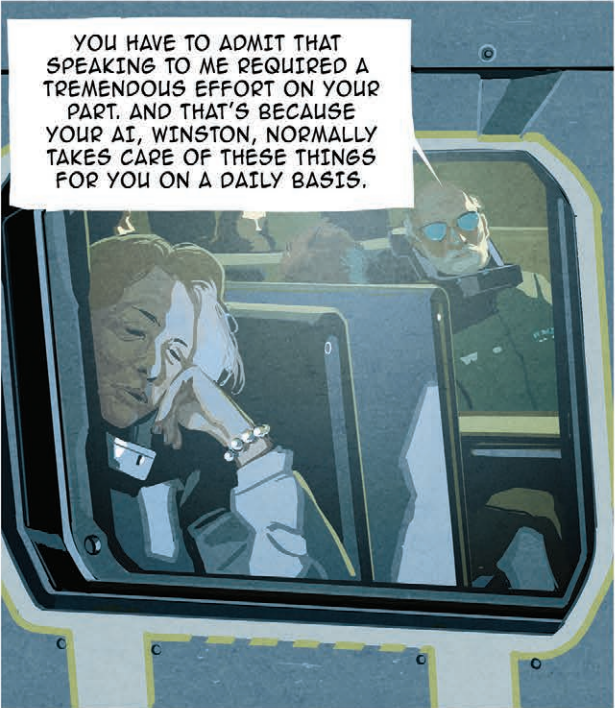
I BET YOU'RE WONDERING WHY MY AI IS TURNED OFF.

YES... IT'S A RARE OCCURRENCE THESE DAYS...



YOU KNOW, YOUNG LADY, I BELIEVE EVERY GENERATION IS BOUND TO BE TECHNOLOGICALLY BEHIND THE TIMES EVER SOONER. THE UNIVERSE IS EXPANDING, TIME IS ACCELERATING, BUT OUR TIME IS LIMITED.

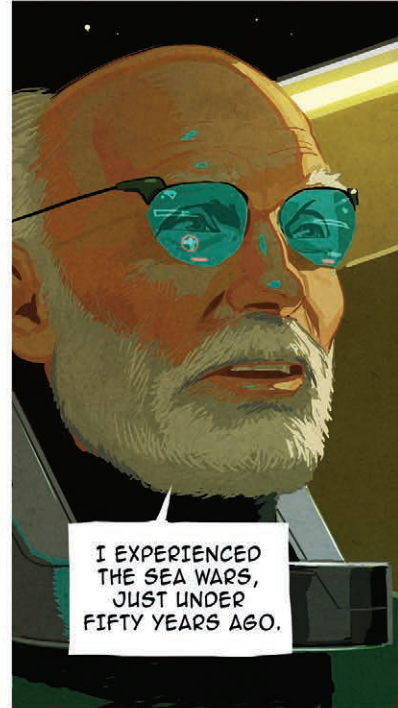
I NOW DERIVE A CERTAIN PLEASURE FROM BEING OF ANOTHER ERA. OVER MY SEVEN DECADES OF LIFE, I HAVE COME TO REALIZE THAT AI - FOR ALL ITS ACHIEVEMENTS - HAS BECOME A CRUTCH. HUMANS ARE RETRENCHING INSIDE THEIR OWN BODIES, IT IS A GREAT HANDICAP!



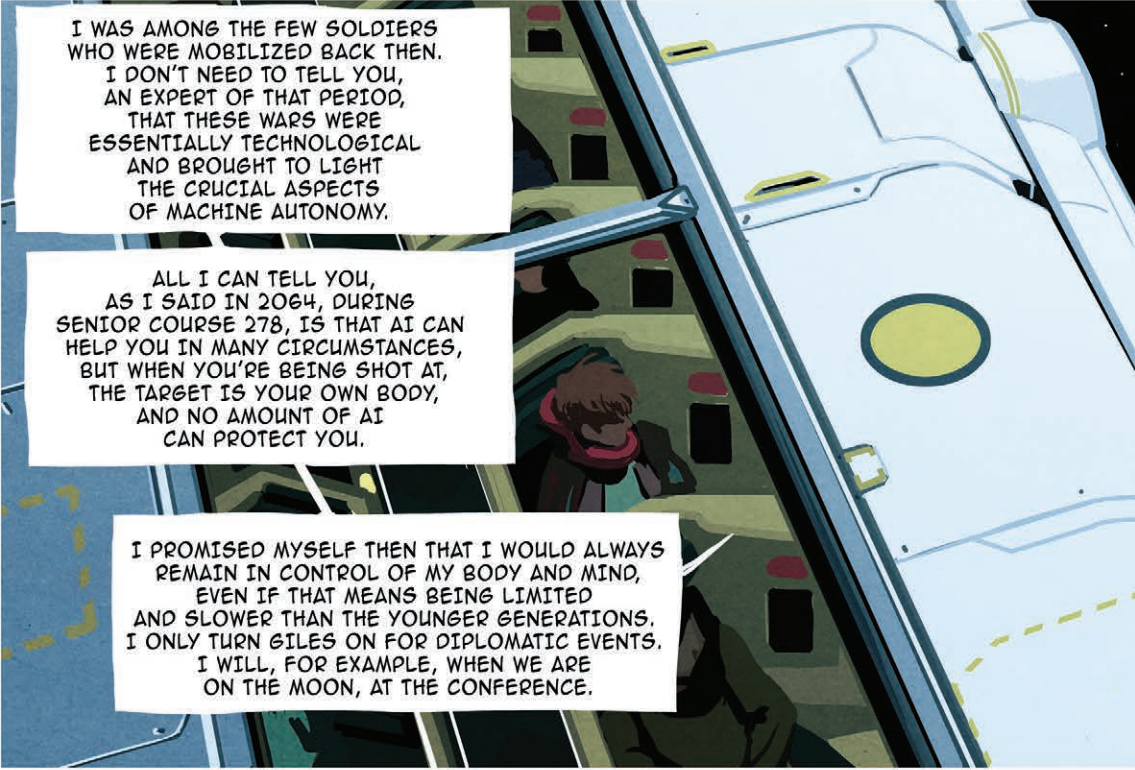
YOU HAVE TO ADMIT THAT SPEAKING TO ME REQUIRED A TREMENDOUS EFFORT ON YOUR PART. AND THAT'S BECAUSE YOUR AI, WINSTON, NORMALLY TAKES CARE OF THESE THINGS FOR YOU ON A DAILY BASIS.



ORIGINALLY, AI BRAIN IMPLANTS WERE ONLY MEANT TO PROVIDE INTELLECTUAL AID, NOT TO BE LIFE ASSISTANTS.



I EXPERIENCED THE SEA WARS, JUST UNDER FIFTY YEARS AGO.



I WAS AMONG THE FEW SOLDIERS WHO WERE MOBILIZED BACK THEN. I DON'T NEED TO TELL YOU, AN EXPERT OF THAT PERIOD, THAT THESE WARS WERE ESSENTIALLY TECHNOLOGICAL AND BROUGHT TO LIGHT THE CRUCIAL ASPECTS OF MACHINE AUTONOMY.

ALL I CAN TELL YOU, AS I SAID IN 2064, DURING SENIOR COURSE 278, IS THAT AI CAN HELP YOU IN MANY CIRCUMSTANCES, BUT WHEN YOU'RE BEING SHOT AT, THE TARGET IS YOUR OWN BODY, AND NO AMOUNT OF AI CAN PROTECT YOU.

I PROMISED MYSELF THEN THAT I WOULD ALWAYS REMAIN IN CONTROL OF MY BODY AND MIND, EVEN IF THAT MEANS BEING LIMITED AND SLOWER THAN THE YOUNGER GENERATIONS. I ONLY TURN GILES ON FOR DIPLOMATIC EVENTS. I WILL, FOR EXAMPLE, WHEN WE ARE ON THE MOON, AT THE CONFERENCE.



I'VE NEVER BEEN ON THE MOON, GENERAL HAMMOND.



THERE ISN'T MUCH TO DO THERE, DOCTOR.

THE MOON ATTRACTS TOURISTS IN SEARCH OF NEW THRILLS, AND WEIGHTLESSNESS IS INDEED AN EXHILARATING EXPERIENCE. BUT APART FROM THAT, THE MOON IS STILL A BIG BARE ROCK, WITH NO COLOURS, NO SCENTS, NO LIFE...

IT IS AN EL DORADO FOR RICH NATIONS ON EARTH. IT IS BRIMMING WITH STRATEGIC MATERIALS, WHICH BECOME THE PROPERTY OF THOSE WHO EXTRACT THEM.



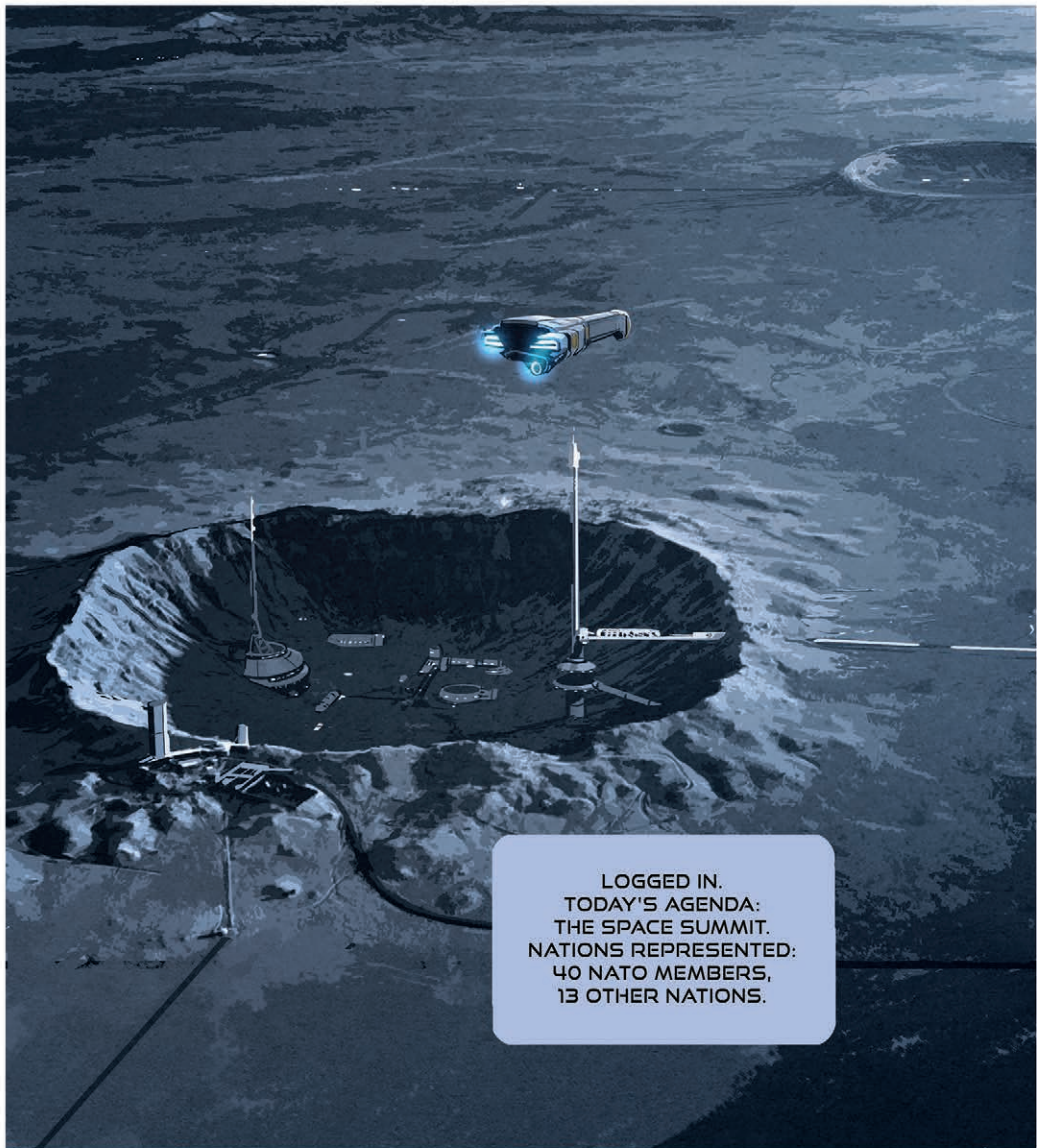
WITH THE DEVELOPMENT OF MOON SHUTTLES, THE MOON IS NOW JUST ONE MORE CONTINENT. THE SIXTH CONTINENT!



WE ARE HERE. GILES?

YES, KARL.

GET BACK ONLINE, I AM GOING TO NEED YOUR SKILLS.



LOGGED IN. TODAY'S AGENDA: THE SPACE SUMMIT. NATIONS REPRESENTED: 40 NATO MEMBERS, 13 OTHER NATIONS.

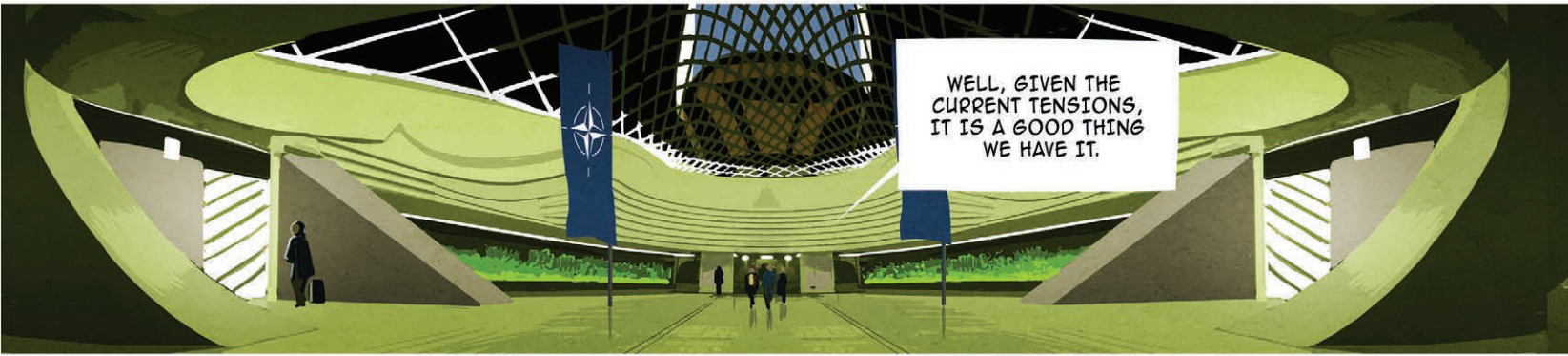


COME, MISS THORSØ,
WE ARE EXPECTED.
IT WOULD BE RUDE
TO ARRIVE LAST AGAIN.



OH, THERE IS THE
DANISH CONTINGENT
COMING IN TO
REPLACE THE BRITISH
FOR THE NEXT SIX
MONTHS.

OF COURSE,
FOR THE
WELL-KNOWN
TRIPWIRE,
ISN'T IT?



WELL, GIVEN THE
CURRENT TENSIONS,
IT IS A GOOD THING
WE HAVE IT.



DIPLOMATIC RELATIONS
HAVE SOURED...
AND YOU KNOW ONLY TOO WELL
WHAT THAT CAN LEAD TO...



THAT IS WHY WE ARE
MEETING.
IT IS CRUCIAL THAT
WE HASH OUT
A CONSENSUS
AT THE CONFERENCE.



THE SECRETARY GENERAL
HAS SAID SHE IS COUNTING
ON YOU TO POINT OUT
HOW ALARMINGLY SIMILAR
THE CURRENT SITUATION IS
TO WHAT WE EXPERIENCED
50 YEARS AGO.



WE MUST AVOID
NEW MAJOR CONFLICTS
AT ALL COSTS.



IT IS ALL IN YOUR
HANDS, DOCTOR,
YOU EMBODY THE
EXCELLENCE OF THE
NATO DEFENSE
COLLEGE!



I HAND THE FLOOR TO MS SANDY MASALA, NATO SECRETARY GENERAL.

FIRST OF ALL, LET ME THANK YOU FOR YOUR RESPONSIVENESS. ALTHOUGH THE JOURNEY TO THE MOON IS NO WALK IN THE PARK, YOU HAVE ALL ACCEPTED OUR INVITATION.

YOU ARE GATHERED HERE TODAY FOR ECONOMIC, DIPLOMATIC, BUT ABOVE ALL, SECURITY REASONS.

FOR THE LAST FORTY YEARS, ALL THE NATIONS AROUND THIS TABLE HAVE BEEN OPERATING ALONGSIDE EACH OTHER IN SPACE AND NOW ON THE MOON. DESPITE OUR DIVERGING INTERESTS, WE HAVE BEEN ABLE TO NURTURE PEACE THROUGH DIPLOMACY.



THE TENSIONS ARE MANY AND RECURRING. BUT THANKFULLY, EVERY SINGLE ONE OF YOU HAS ALWAYS CHOSEN THE PATH OF CONSENSUS TO ENVISION A POSSIBLE FUTURE FOR HUMANKIND, AS DID YOUR PREDECESSORS.



TODAY, THE STATUS QUO IS BEING CHALLENGED.

AS YOU ARE AWARE, NATO'S WAR PREDICTOR HAS BEEN WARNING US THAT WAR IS LIKELY TO BREAK OUT.

IN A CONFLICT THAT IS REMINISCENT OF THE SEA WARS.

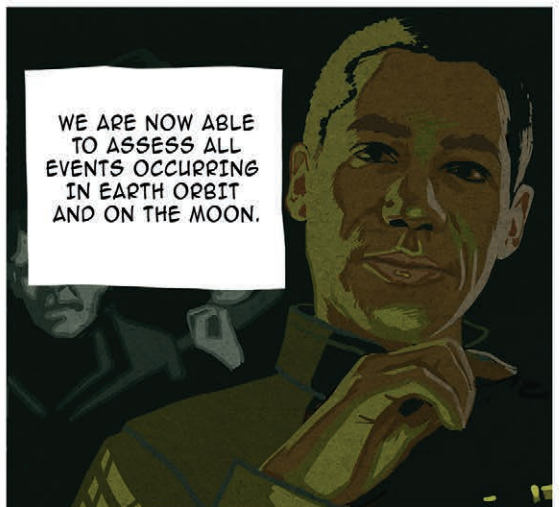


WE MAY SOON BE FACING A SUCCESSION OF SIMMERING CONFLICTS. OUR WORLD WOULD DESCEND INTO A NEW ERA OF DARKNESS AND CHAOS.

THIS IS NOT A PROSPECT ANYONE OF US CAN POSSIBLY RELISH.



AS YOU KNOW, NATO HAS ACQUIRED NEW CAPABILITIES FOR SPACE ENVIRONMENT ASSESSMENT.



WE ARE NOW ABLE TO ASSESS ALL EVENTS OCCURRING IN EARTH ORBIT AND ON THE MOON.



EVENTS LINKED IN PART TO THE RACE IN WHICH ALL YOUR COUNTRIES ARE ENGAGED...

... NOT LEAST FOR CONTROL OF LAGRANGE POINTS AND LUNAR LAND.

ALLOW ME TO THANK THE UNITED STATES FOR LETTING NATO USE THEIR EARTH-MOON COMMUNICATION EQUIPMENT.

WE ARE WELL AWARE OF WHAT IS AT STAKE, AND WE ARE FULLY COMMITTED.



THANK YOU, GENERAL CLAYS.

WITH OUR CURRENT CAPABILITIES, WE ARE ABLE TO DETERMINE THAT THE CHAIN OF RECENT EVENTS CANNOT BE PURE COINCIDENCE.

THEY WERE THEREFORE INTENDED TO HAPPEN.



MS MASALA, WE CAN SEE WHERE THIS IS GOING. IS THE PURPOSE OF THIS MEETING TO PUNISH THOSE WHO ARE NOT NATO PARTNERS?

WHAT AM I SUPPOSED TO DO? AS A REPRESENTATIVE OF MY COUNTRY, I FEEL OFFENDED.



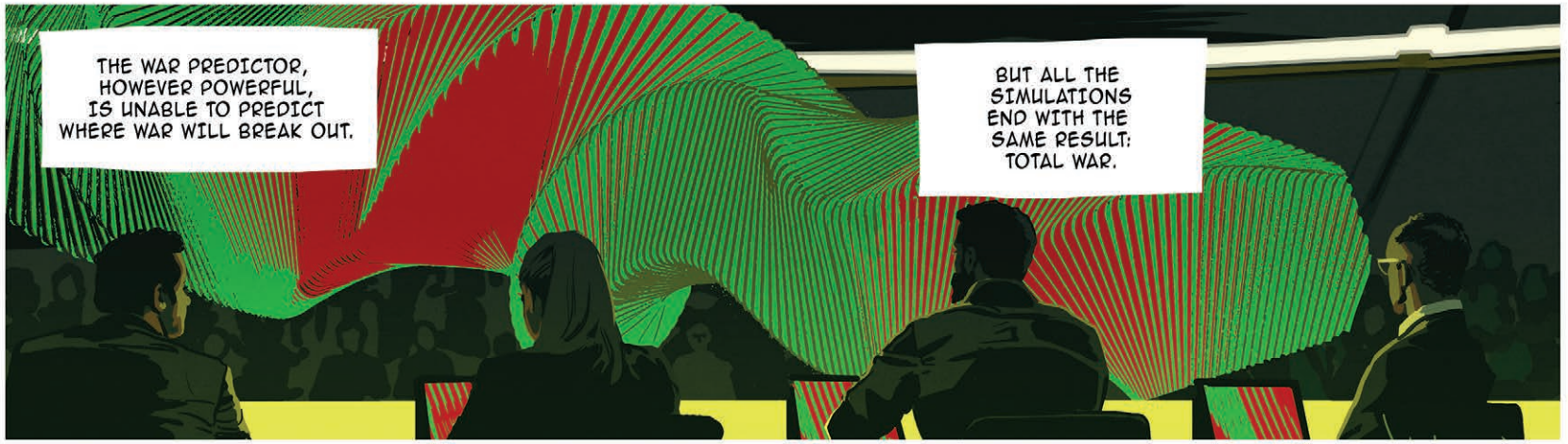
SIR, THIS IS NOT DIRECTED AGAINST ANY INDIVIDUAL OR COUNTRY IN PARTICULAR.

THESE INCIDENTS ARE EVERYONE'S RESPONSIBILITY.

I WILL SHORTLY GIVE THE FLOOR TO TWO COLLEAGUES WHO ARE BETTER QUALIFIED TO DESCRIBE THESE INCIDENTS IN DETAIL.

I NEED YOU TO REALIZE THAT A MAJOR CONFLICT IS HIGHLY LIKELY TO BREAK OUT.

WE HAVE A DUTY TO ENSURE THIS DOES NOT HAPPEN.



THE WAR PREDICTOR,
HOWEVER POWERFUL,
IS UNABLE TO PREDICT
WHERE WAR WILL BREAK OUT.

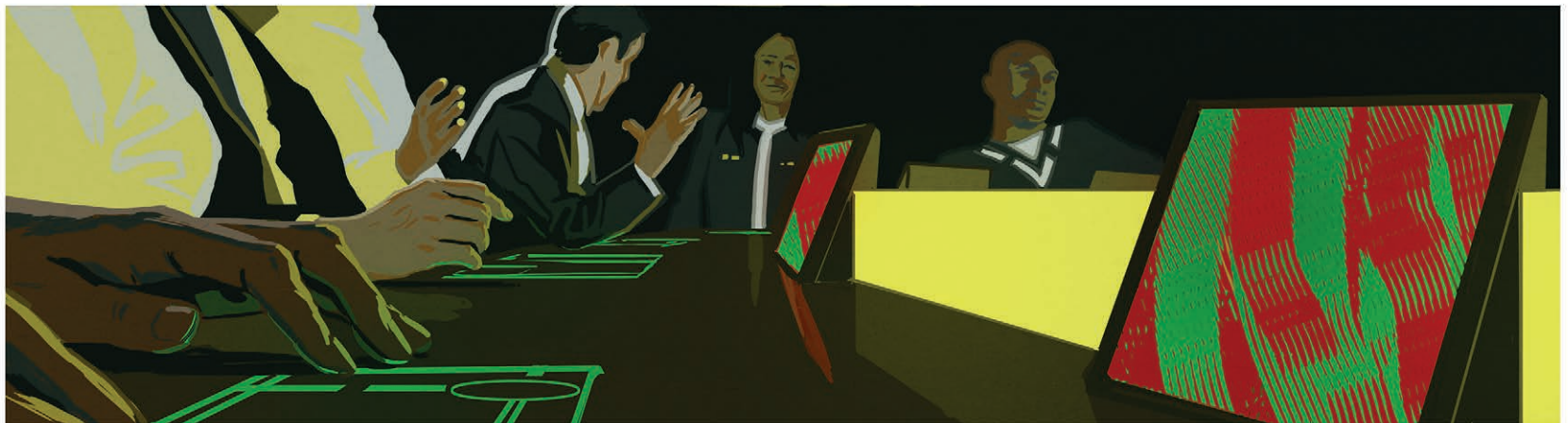
BUT ALL THE
SIMULATIONS
END WITH THE
SAME RESULT:
TOTAL WAR.



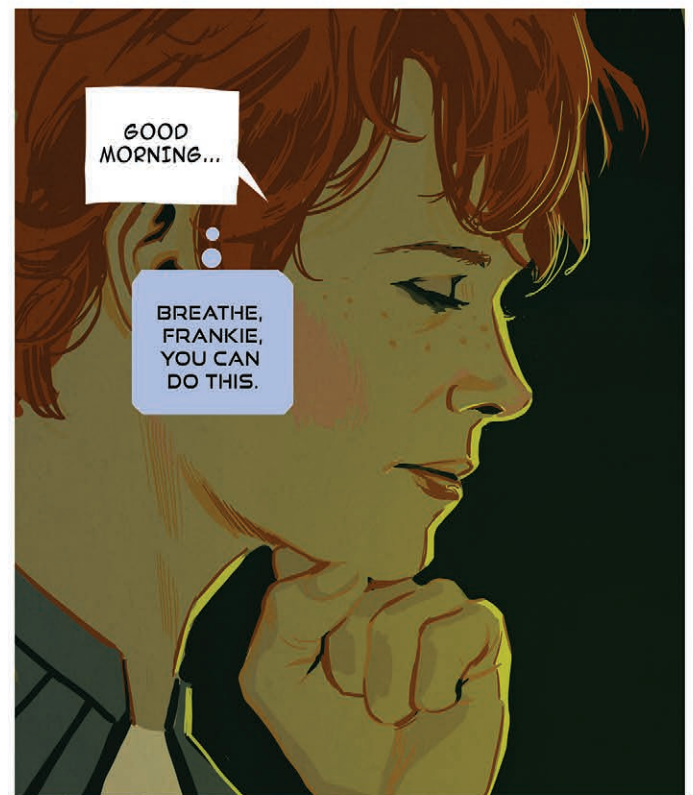
MADAM, YOU SEEM
TO BELIEVE
IT HAS ALMOST
DIVINE POWERS...



LET US SEE WHAT MR
CHATZIMILAKIS HAS TO SAY
ON THE WAY
THE WAR PREDICTOR
WORKS AND WHAT
IT IS REALLY ABLE TO DO.



BUT BEFORE THAT, I
WOULD LIKE TO GIVE
THE FLOOR TO
DR FRANKIE THORSØ.
SHE IS AN EXPERT
ON THE SEA WARS.



GOOD
MORNING...

BREATHE,
FRANKIE,
YOU CAN
DO THIS.



TELL US WHY THIS CURRENT PERIOD PORTENDS A BLEAK FUTURE.

THERE WERE SEVERAL FACTORS AT PLAY IN THE SEA WARS.



A- MASS ACCESS TO A GIVEN DOMAIN.

B- COMPETITION OVER RESOURCES.

C- ANTI-ACCESS CAPABILITIES IN THAT DOMAIN.



SPACE AND LUNAR LAND ARE TODAY'S SEAS. THEY HAVE BEEN THE SCENE OF SEVERAL ACTS AGAINST THE COMMON GOOD.

JUST LIKE INTERNATIONAL WATERS, SPACE IS A GLOBAL COMMON.



JUST AS IN THE SEA, FLASH POINTS TEND TO BE CLUSTERED IN THE "IN-BETWEEN" REGIONS. THE MOON, IN PARTICULAR, IS FULL OF LAWLESS AREAS. FOR DECADES, NATIONS AROUND THIS TABLE HAVE BEEN ABLE TO EXTRACT RESOURCES WITHOUT ANY GREAT TENSIONS.



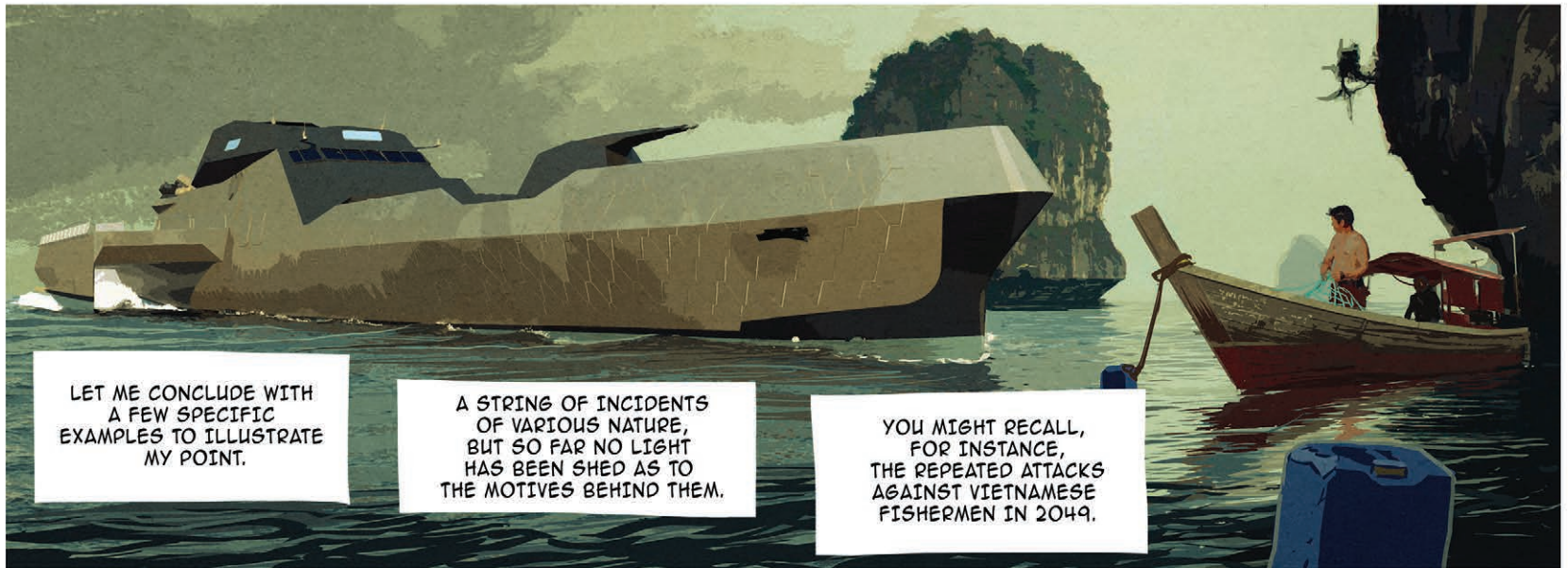
UNTIL THE PARTITION OF THE MOON IN 2091, WHICH SOME NATIONS FELT WAS INEQUITABLE. AREAS WITH FEWER UNDERGROUND RESOURCES ENCOURAGE NATIONS TO DISREGARD BORDERS.

THE PARALLEL WITH THE 2050 ANNEXATIONS, WHICH TRIGGERED THE SEA WARS, IS PLAIN TO SEE.

ARE YOU SUGGESTING THAT THE UPCOMING WAR WOULD FOLLOW THE SAME PATTERNS?



IN ANY CASE, TODAY'S MOUNTING TENSIONS ARE CLEARLY REMINISCENT OF THOSE THAT PRECEDED THE SEA WARS.



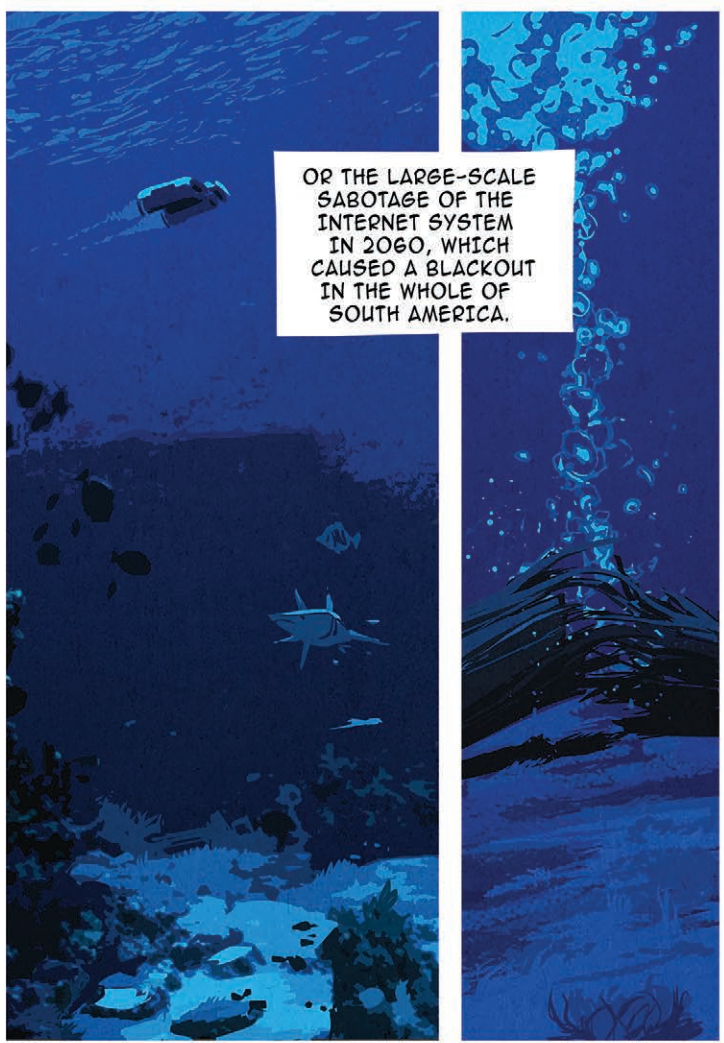
LET ME CONCLUDE WITH A FEW SPECIFIC EXAMPLES TO ILLUSTRATE MY POINT.

A STRING OF INCIDENTS OF VARIOUS NATURE, BUT SO FAR NO LIGHT HAS BEEN SHED AS TO THE MOTIVES BEHIND THEM.

YOU MIGHT RECALL, FOR INSTANCE, THE REPEATED ATTACKS AGAINST VIETNAMESE FISHERMEN IN 2049.



THEIR BOATS ARE NOW LYING 30,000 FT BELOW THE SURFACE.



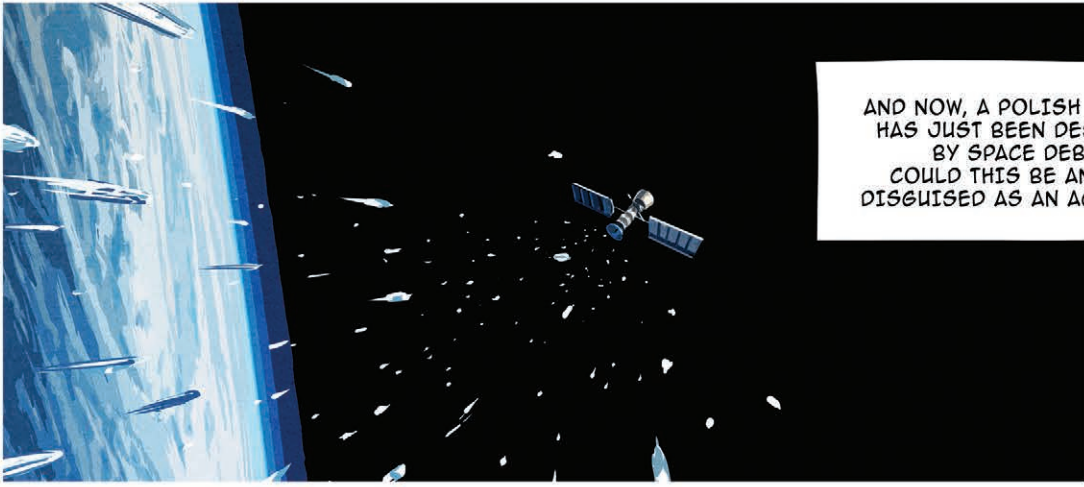
OR THE LARGE-SCALE SABOTAGE OF THE INTERNET SYSTEM IN 2060, WHICH CAUSED A BLACKOUT IN THE WHOLE OF SOUTH AMERICA.



AND WHAT HAPPENED TO THE FRENCH FRIGATE "LA RÉSILIENTE", WHICH VANISHED IN THE RED SEA?



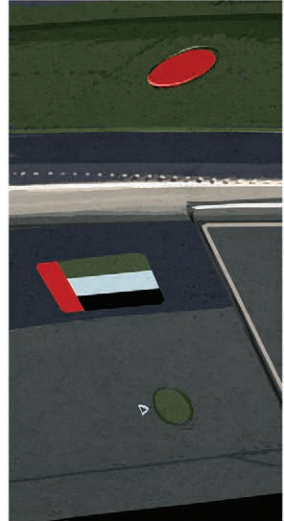
AND FINALLY, WHAT ABOUT THE HIJACKING OF A RUSSIAN VESSEL, WHICH WAS ATTRIBUTED TO ANTI-TECH TERRORISTS?



AND NOW, A POLISH SATELLITE HAS JUST BEEN DESTROYED BY SPACE DEBRIS: COULD THIS BE AN ATTACK DISGUISED AS AN ACCIDENT...?



ALSO, WE ARE YET TO BE GIVEN A LEGITIMATE MOTIVE BY A NON-NATO NATION AFTER A COMMERCIAL SPACE SHUTTLE FROM THE UAE WAS CAPTURED UNDER THE PRETEXT OF TECHNICAL NON-COMPLIANCE.



I COULD ADD THE SUDDEN FAILURE OF THE HERA II SATELLITE, ALLEGEDLY AS A RESULT OF A SOLAR STORM, WHICH ALSO LEFT THE SCIENTIFIC COMMUNITY UNCONVINCED...



THE SIMILARITIES BETWEEN THESE EVENTS SHOULD COMMAND YOUR ATTENTION.



THANK YOU.

YOU DID A GREAT JOB, FRANKIE.



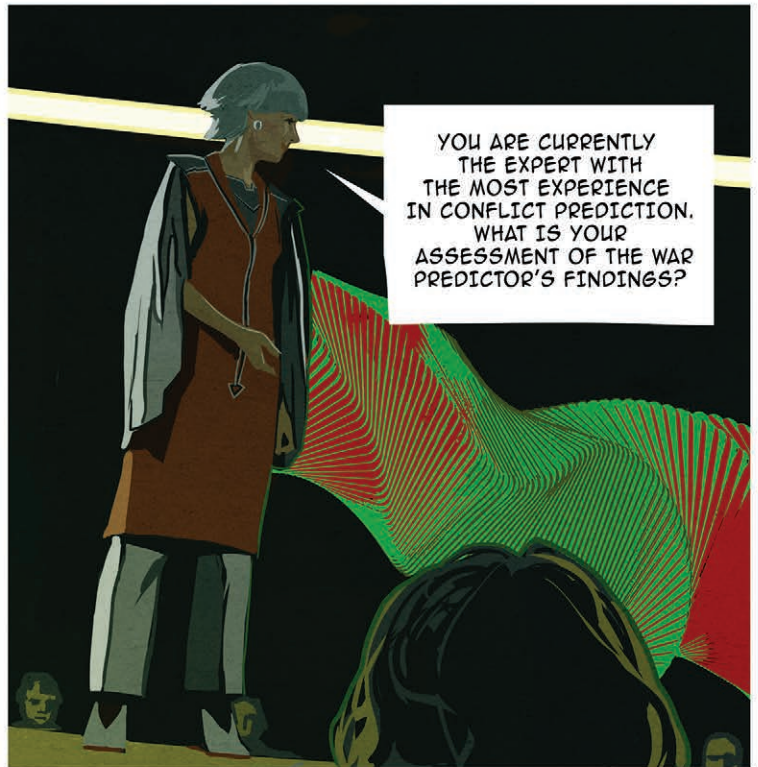
MANY THANKS, MS THORSØ, FOR YOUR INSIGHTS.



LET US NOW LOOK MORE CLOSELY AT HOW THE WAR PREDICTOR WORKS.



PATRYK CHATZIMILAKIS IS IN CHARGE OF SYSTEMATICALLY CHECKING THE FINDINGS OF THE WAR PREDICTOR.



YOU ARE CURRENTLY THE EXPERT WITH THE MOST EXPERIENCE IN CONFLICT PREDICTION. WHAT IS YOUR ASSESSMENT OF THE WAR PREDICTOR'S FINDINGS?



REGRETTABLY, I BELIEVE THEY ARE CORRECT.



THE WAR PREDICTOR HAS AN ENORMOUS COMPUTATION CAPACITY. THEREFORE, IN ORDER TO TEST ITS FINDINGS, WE USE A DOZEN MIRRORING AI ASSETS, WHICH ARE LESS POWERFUL BUT WORK THE SAME WAY. THESE ASSETS WORK TOGETHER TO ASSESS THE ACCURACY OF THE WAR PREDICTOR'S FINDINGS.



COULD YOU ELABORATE ON THIS?



WELL, PICTURE A HUGE TEN-MASTER SAILING AT A SPEED OF 50 KNOTS. CHASING IT WOULD BE TEN, MORE AGILE RACING SAILBOATS, TAKING ADVANTAGE OF THE WEATHER DATA COLLECTED BY THE SAILING SHIP AHEAD OF THEM.

THIS ALLOWS THE RACING SAILBOATS TO GATHER SPEED AND OVERTAKE THE TEN-MASTER. THE TEN SAILBOATS CAN EXPERIMENT WITH TEN DIFFERENT COURSES. BUT WITH THEIR LOWER INERTIA, THEIR SMALLER SAILS AND THEIR WEAKER WEATHER DATA, THEY FIND THEMSELVES AT A DISADVANTAGE WHEN THE WIND SUBSIDES.

THE TEN-MASTER, THROUGH INERTIA, THEN OVERTAKES THEM AND SO IT GOES ON...



THAT IS EXACTLY HOW IT WORKS WITH THE WAR PREDICTOR.



WE MONITOR AND ASSESS ITS PERFORMANCE WITH THE TEN MIRRORING AI ASSETS.

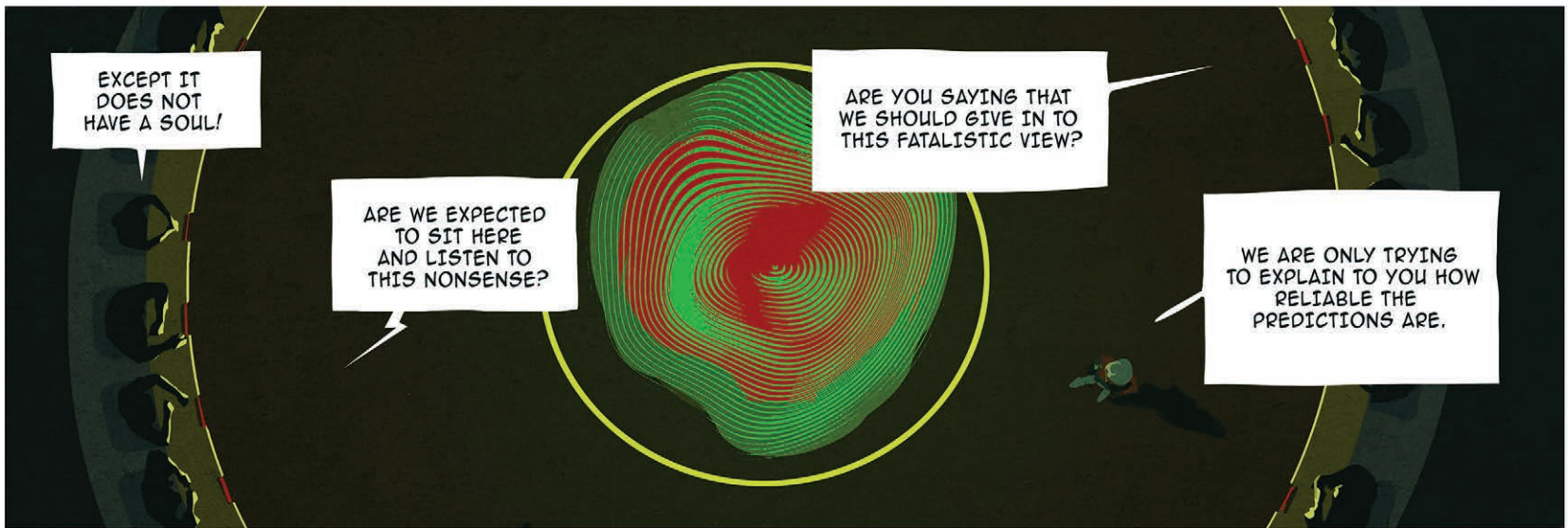


AND WE TAKE METAPHORICAL FLEA LEAPS IN TIME.



SINCE ITS INCEPTION SEVEN YEARS AGO, THE PREDICTOR'S FINDINGS HAVE CONSISTENTLY BEEN CORRECT.

IT IS NOT SUBJECT TO ANY DOGMA OR ANY PARTICULAR VISION, AND HAS NO VESTED INTERESTS. THIS MEANS IT IS SOMEHOW DEVOID OF ANY BIAS, MAKING IT A FONT OF WISDOM AND TRUTH.



EXCEPT IT DOES NOT HAVE A SOUL!

ARE WE EXPECTED TO SIT HERE AND LISTEN TO THIS NONSENSE?

ARE YOU SAYING THAT WE SHOULD GIVE IN TO THIS FATALISTIC VIEW?

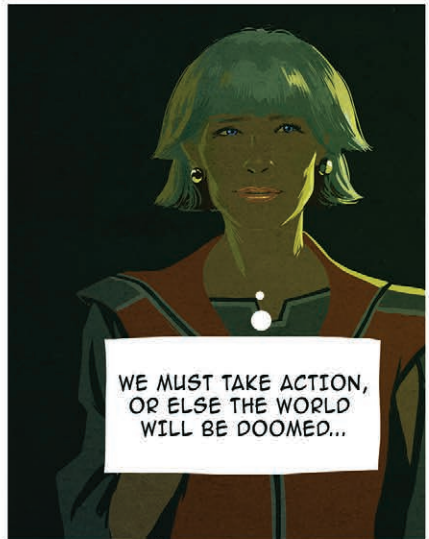
WE ARE ONLY TRYING TO EXPLAIN TO YOU HOW RELIABLE THE PREDICTIONS ARE.



THIS IS OUTRAGEOUS! ENOUGH IS ENOUGH!



HOW CAN YOU SAY IT IS UNBIASED? IT IS JUST THE VIEW OF AN AI TOOL DOING NATO'S BIDDING.



WE MUST TAKE ACTION, OR ELSE THE WORLD WILL BE DOOMED...

ORION GARCIA REPORTING, FROM THE SPECIAL RECONNAISSANCE UNIT (SRU).

SIDE, PLEASE RECORD AND SEND THE FOLLOWING INFORMATION, WITH LEVEL-3 ENCRYPTION.

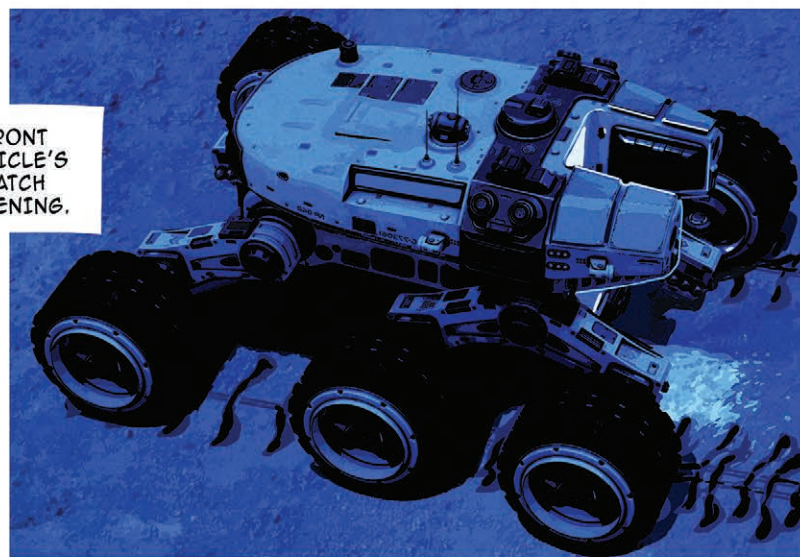
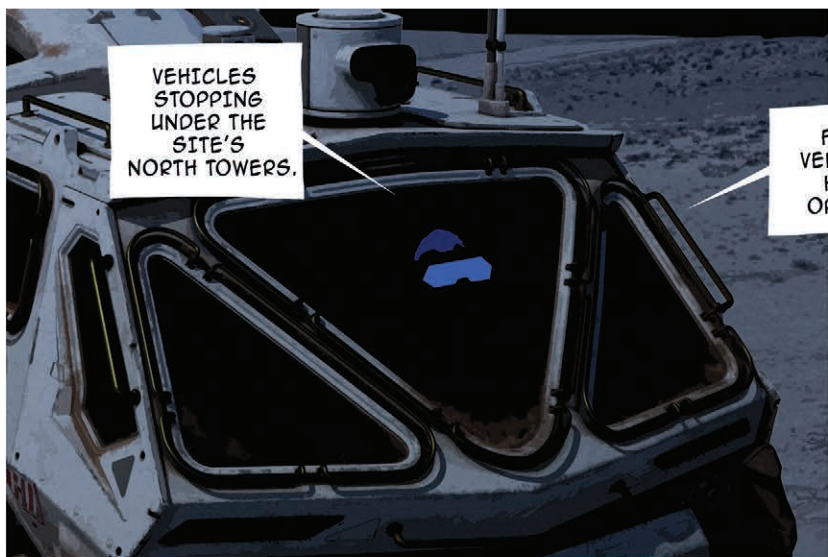
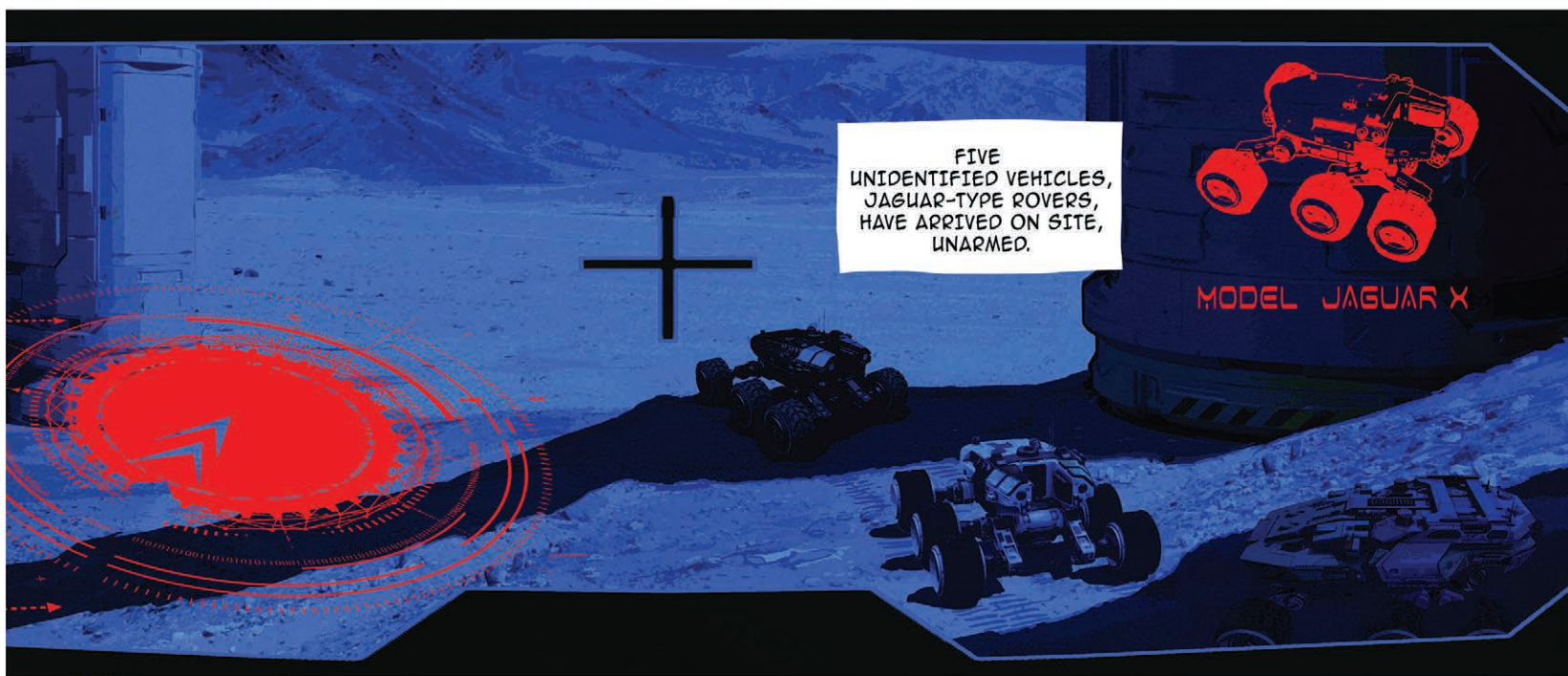
ROGER, ORION. GO AHEAD.

MEANWHILE, OVER AT THE HE-ALPHA HELIUM-3 EXTRACTION FACILITY, FAR SIDE OF THE MOON.

IN POSITION FOR THE LAST THREE DAYS.

HAVE OBSERVED UNUSUAL MOVEMENTS ON THE GROUND SINCE YESTERDAY.

THE DANISH PATROL SPACECRAFT NIELSEN HAS BEEN FLYING OVER THE AREA AT LOW ALTITUDE, 600 FT AT MOST... ON ITS WAY TO URBAMOON.

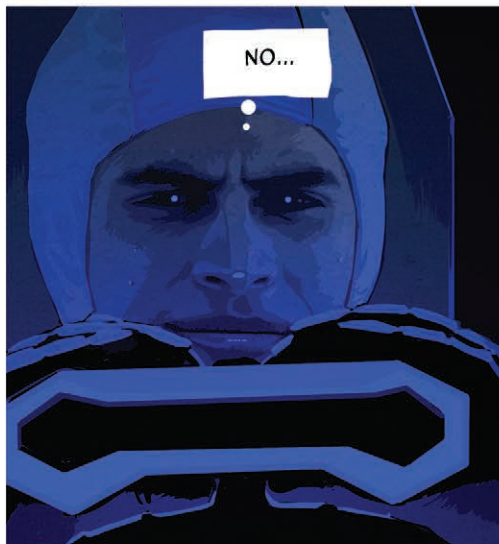




MEN ALIGHTING,
HANDLING SEVERAL CRATES.
IMPOSSIBLE TO IDENTIFY
THEIR CONTENT.



THE MEN
ARE TAKING
EQUIPMENT
OUT OF THE
CRATES.



NO...



YOU'VE
GOTTA
BE J...



RED ALERT!

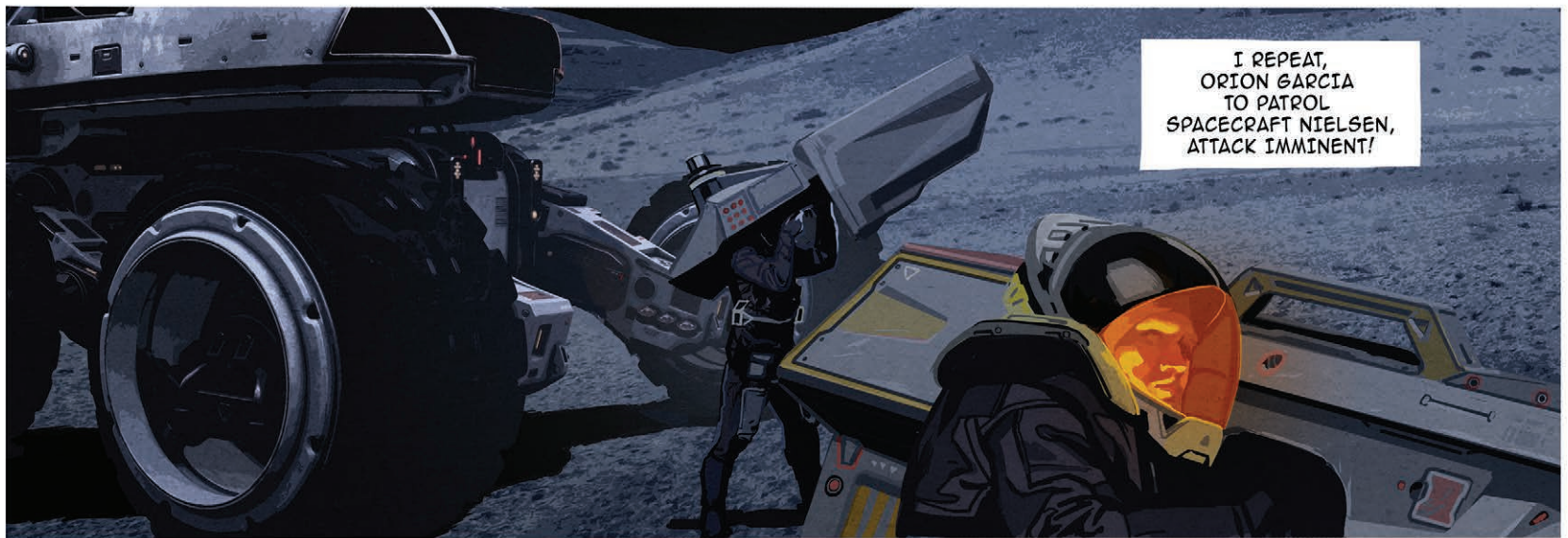
DANGER
LETHAL WEAP

THE MEN ARE
HEAVILY
ARMED!



SIDE, URGENT MESSAGE TO
PATROL SPACECRAFT NIELSEN:
WATCH OUT! SEVERAL MEN
ARMED WITH COILGUNS
IDENTIFIED.

HIGHEST
THREAT
LEVEL!



I REPEAT,
ORION GARCIA
TO PATROL
SPACECRAFT NIELSEN,
ATTACK IMMINENT!

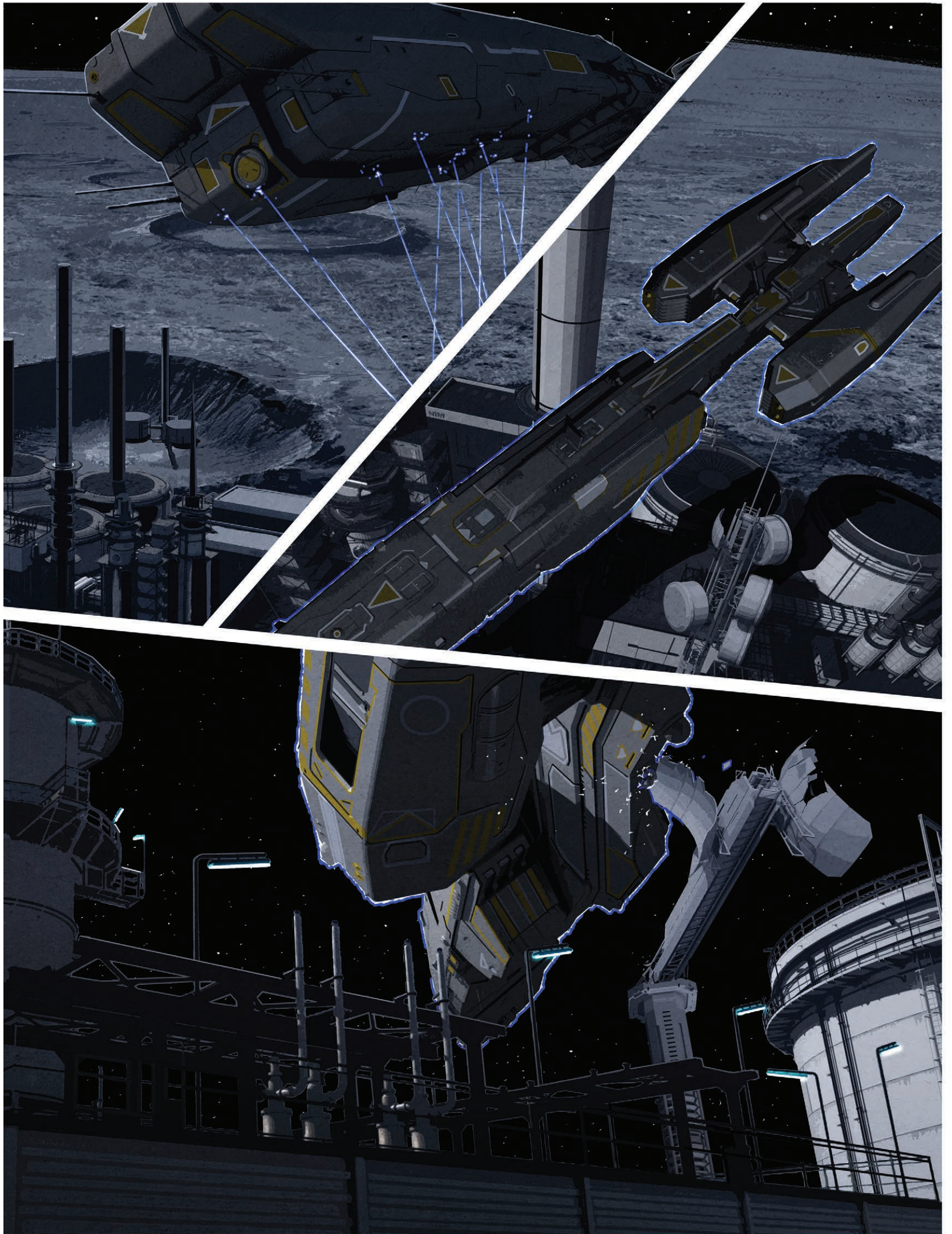


CLEAR THE
AREA!
IMMEDIATE
DANGER!



ORION,
COMMUNICATION
FAILURE.

THEY MUST
BE USING A
JAMMER!





!!!



SIDE, ASK EMERGENCY SERVICES TO SEND A TEAM ON SITE URGENTLY!



IS THE PATROL SPACECRAFT RESPONDING?

NO VITAL DATA DETECTED.



THEY'VE SPOTTED US!



ORION GARCIA TO SRU, COVER COMPROMISED, BEING CHASED BY UNIDENTIFIED VEHICLES.

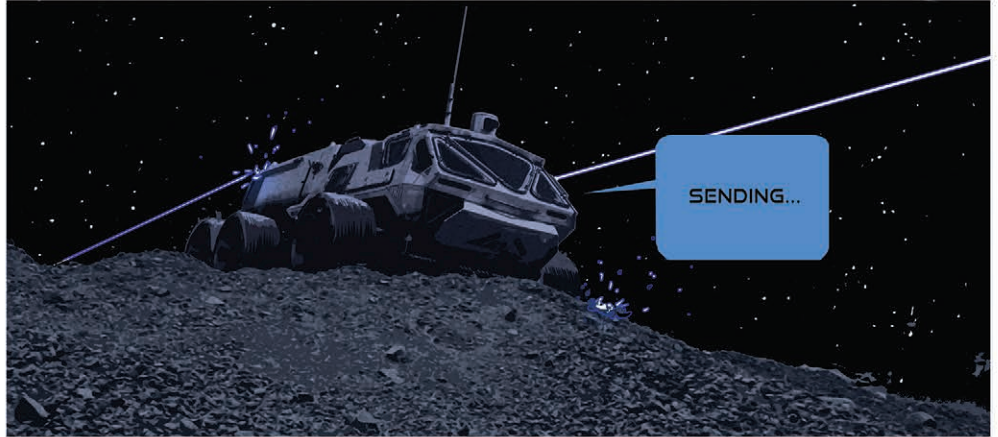


SEND BACKUP IMMEDIATELY!!!



ORION, CONNECTION WITH SRU IMPOSSIBLE.

DAMN!!!

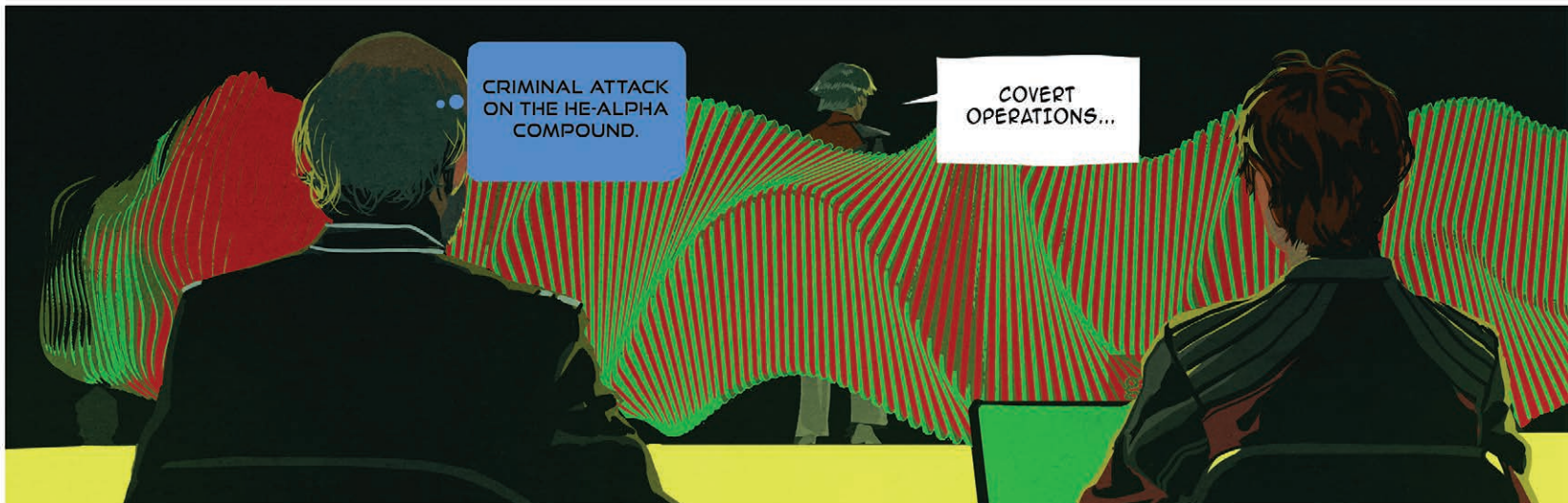




SIDÉ TO GILES,
HIGH-PRIORITY
MESSAGE.



SRU AGENT ORION
GARCIA HAS JUST
BEEN KILLED
IN ACTION.



CRIMINAL ATTACK
ON THE HE-ALPHA
COMPOUND.

COVERT
OPERATIONS...



... NO,
ORION...



SANDY...



REGISTRATION
NUMBER
10-K-ED-804
NAME: GARCIA-MASALA
FIRST NAME: ORION
DEAD



MY
SON...

SANDY?



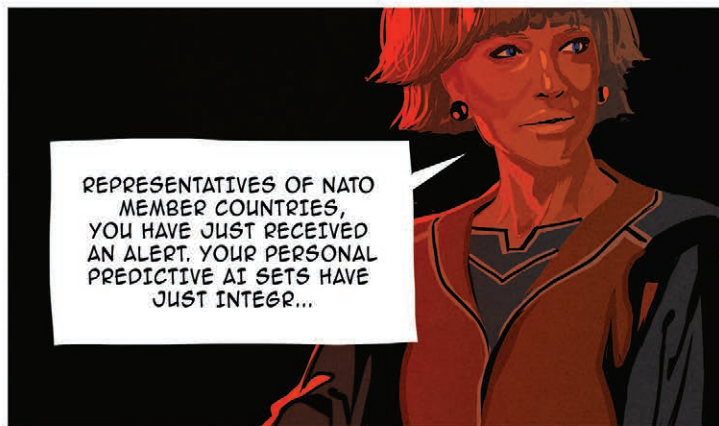
WHAT'S HAPPENING?



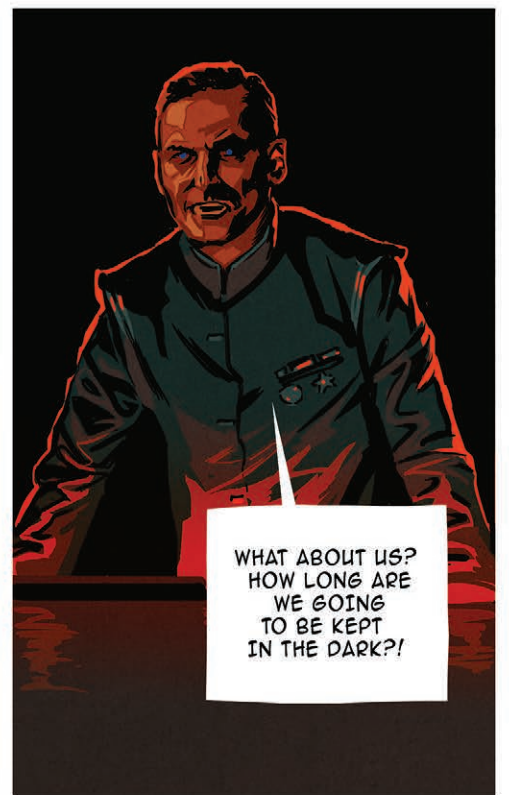
MS MASALA, IS EVERYTHING OK?



WE... WE HAVE JUST HEARD OF A SERIOUS DEVELOPMENT.



REPRESENTATIVES OF NATO MEMBER COUNTRIES, YOU HAVE JUST RECEIVED AN ALERT. YOUR PERSONAL PREDICTIVE AI SETS HAVE JUST INTEGR...



WHAT ABOUT US? HOW LONG ARE WE GOING TO BE KEPT IN THE DARK?!



GENERAL,
THE WAR PREDICTOR
IS ON RED ALERT.

WE HAVE NEVER
CROSSED THAT
ESCALATION
THRESHOLD
BEFORE.



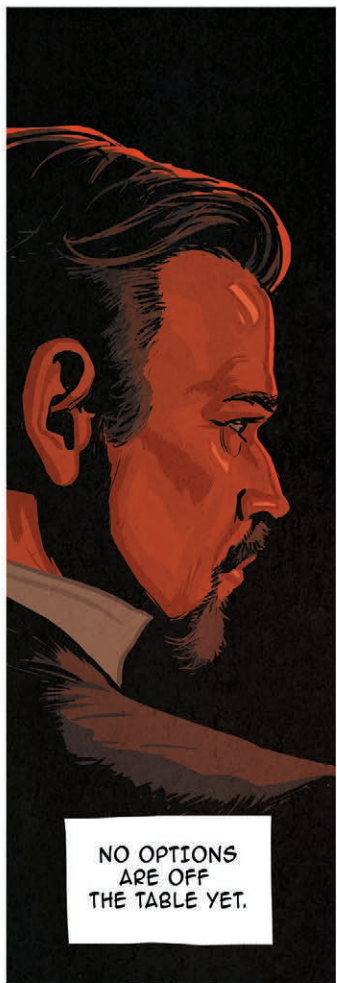
IT SEEMS LIKE
NOTHING CAN STOP
THIS TEN-TON
TRUCK SPEEDING
TOWARDS US NOW.



THIS TIME, THERE
IS NO WAY
WE CAN AVERT...



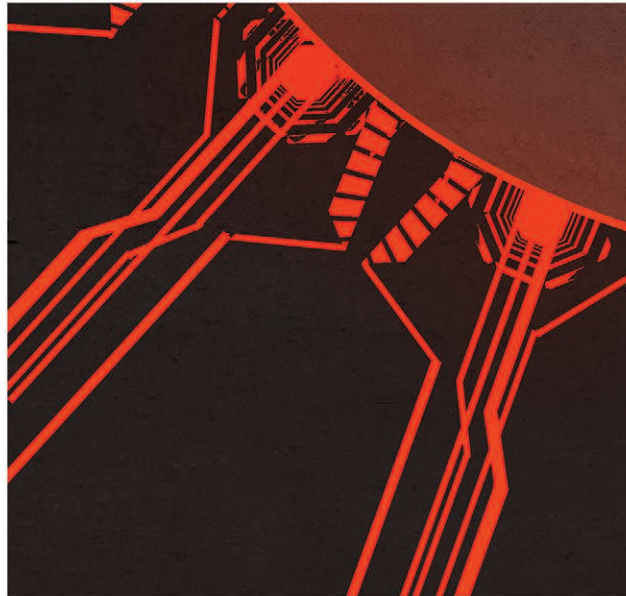
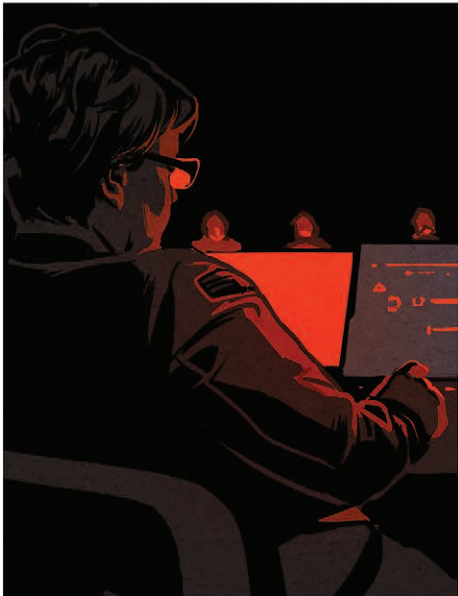
PLEASE,
TRY TO KEEP
A COOL HEAD.



NO OPTIONS
ARE OFF
THE TABLE YET.



YOUR NATION'S
ROLE
IN THE
CONFLICT:
ATTACKER



THE WAR PREDICTOR HAS JUST INFORMED ALL ACTORS OF THE CONFLICT UNFOLDING BETWEEN THEM.

AT THIS TIME, THE NATIONS INVOLVED ARE NOT AWARE OF EACH OTHER'S ROLES.



MY GOVERNMENT CANNOT ACCEPT THIS ATTACK. THIS IS AN ACT OF WAR!



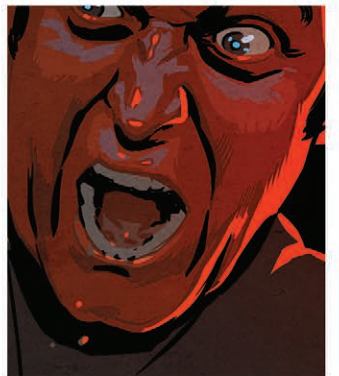
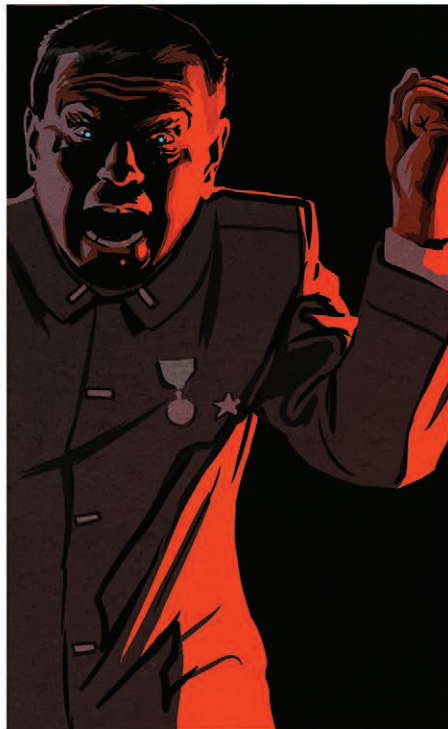
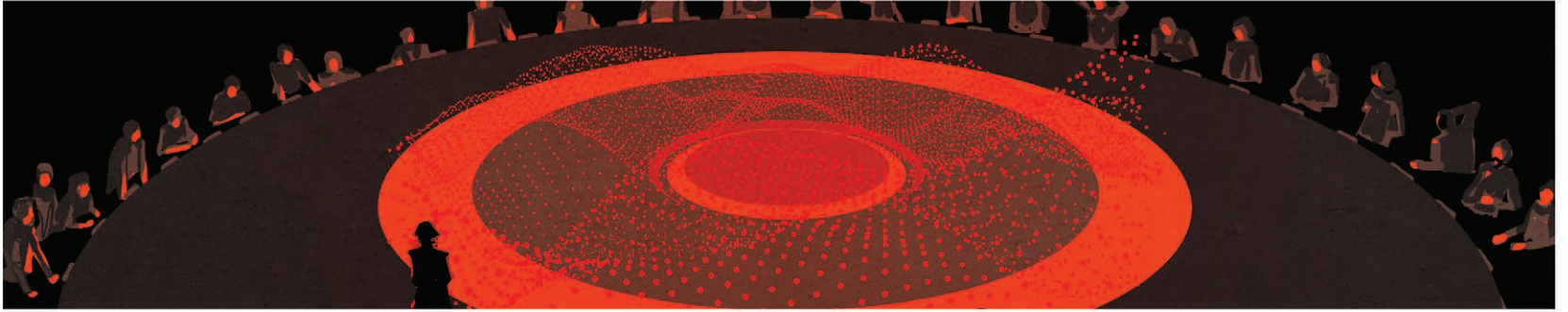
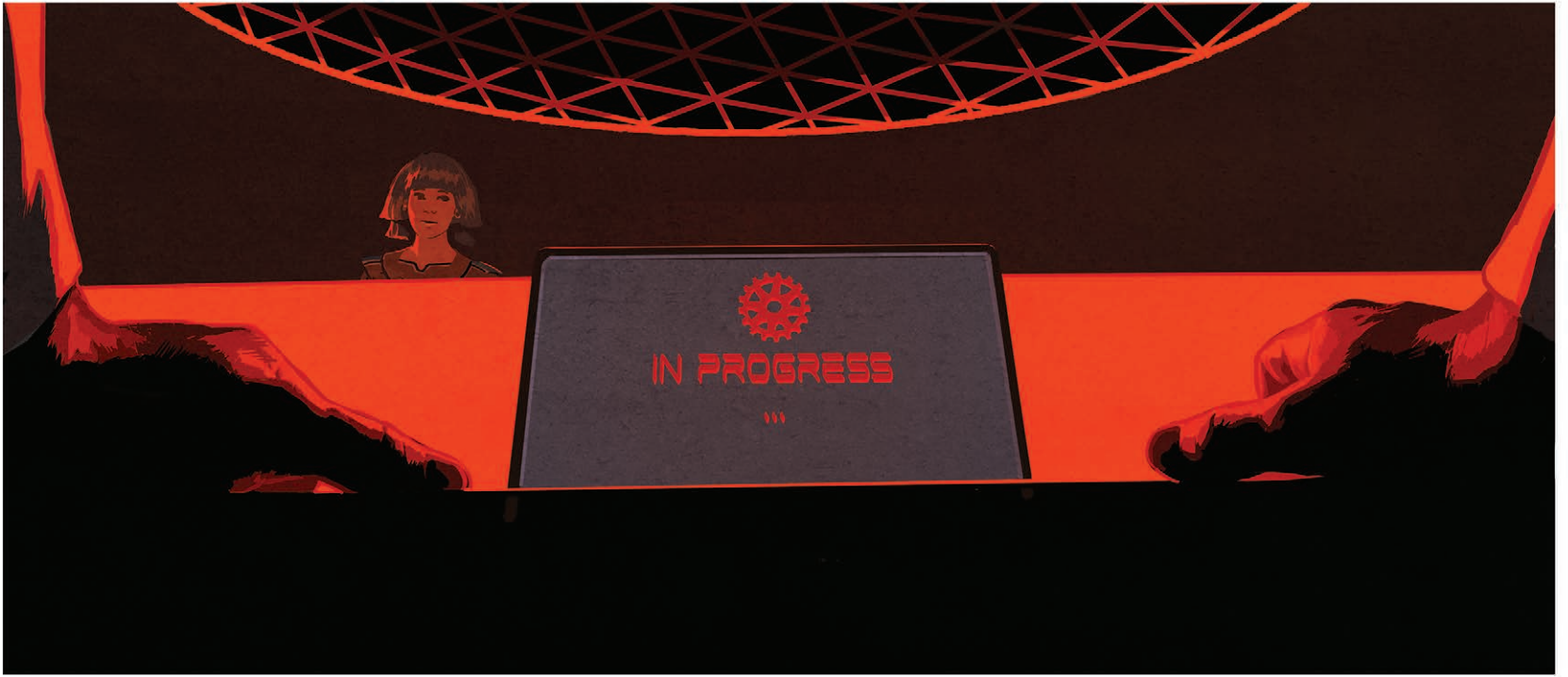
HOW DO WE KNOW THAT NATO IS NOT BEHIND THIS ENTIRE FARCE?! YOU, OVER THERE, YOUR COUNTRY WOULD HAVE SO MUCH TO GAIN FROM THIS WAR BREAKING OUT!



I BEG YOUR PARDON? ABSOLUTELY NOT! WE ARE A DIPLOMATICALLY RESPONSIBLE COUNTRY! OUR COUNTRY, FOR ONE, HAS THE UTMOST REGARD FOR BORDERS!



WAIT... THE WAR PREDICTOR IS WRITING A MESSAGE...





PLEASE
STAY CALM!



PLEASE!
LET ME MAKE SURE
YOU ARE ALL EQUALLY
UPDATED.



AT 09:05
LOCAL TIME,
NATO PATROL
SPACECRAFT
NIELSEN WAS
ATTACKED.



IT CRASHED
ON THE HE-ALPHA
COMPOUND. THE EXTENT
OF THE DAMAGE HAS YET
TO BE ASCERTAINED.



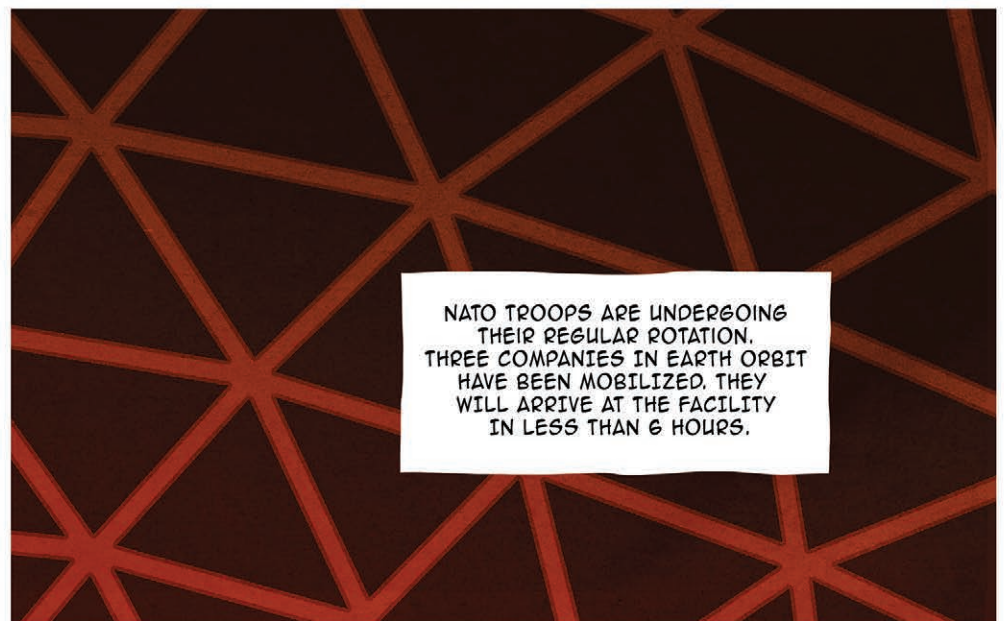
BUT WE ARE NO LONGER
RECEIVING ANY VITAL
DATA FROM THE
250 DANISH PERSONNEL
ON BOARD. PROBABLY
KILLED IN ACTION.



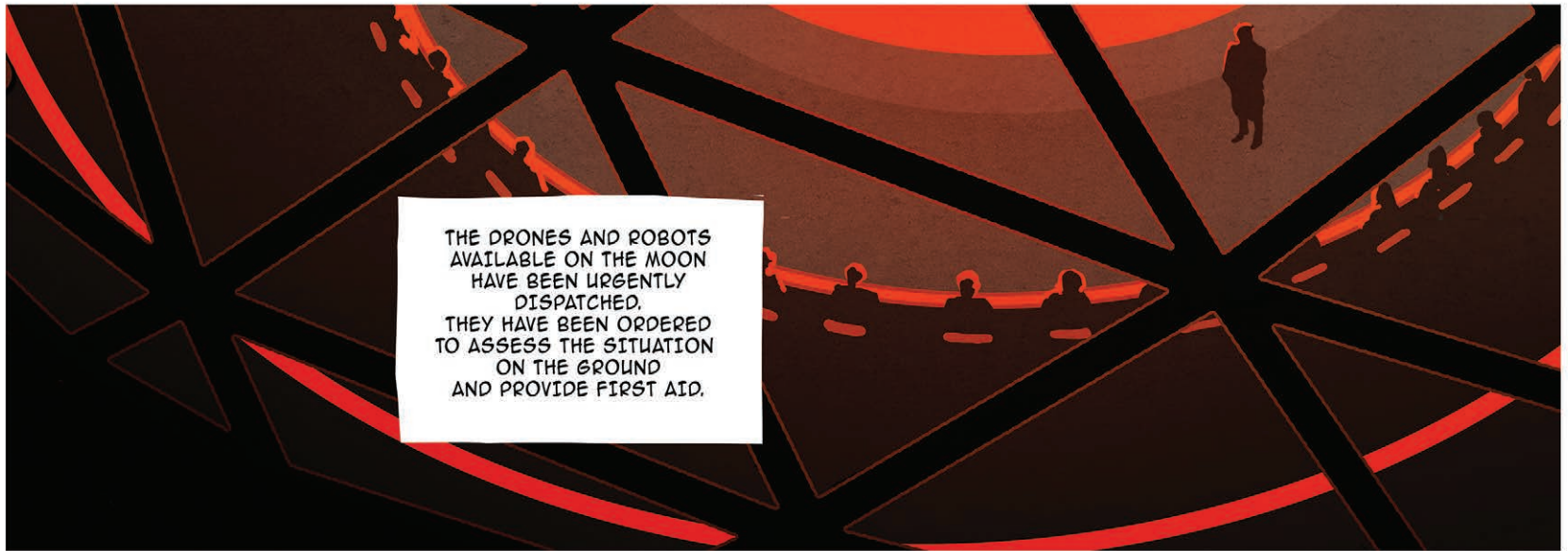
THE LIFE OF THE 77 WORKERS
AT THE HELIUM-3 EXTRACTION
FACILITY IS AT STAKE HERE.
EMERGENCY SERVICES
ARE ON THEIR WAY.



THIS IS A
TRAGEDY WITH
UNIMAGINABLE
CONSEQUENCES.



NATO TROOPS ARE UNDERGOING
THEIR REGULAR ROTATION.
THREE COMPANIES IN EARTH ORBIT
HAVE BEEN MOBILIZED. THEY
WILL ARRIVE AT THE FACILITY
IN LESS THAN 6 HOURS.



THE DRONES AND ROBOTS AVAILABLE ON THE MOON HAVE BEEN URGENTLY DISPATCHED. THEY HAVE BEEN ORDERED TO ASSESS THE SITUATION ON THE GROUND AND PROVIDE FIRST AID.



AFFECTED NATO SOLDIERS ON THE VARIOUS LUNAR BASES NEAR THE FACILITY ARE BEING SENT HOME. DRONES AND SOLDIERS HAVE BEEN TASKED TO AGGRESSIVELY DEFEND THE AREA.



DENMARK HAS BEEN ATTACKED. NATO HAS BEEN ATTACKED.



A RED LINE HAS BEEN CROSSED.



WE ARE ON THE BRINK OF WAR.



I AM APPEALING TO YOUR SENSE OF RESPONSIBILITY. WE MUST BE FIRM IN OUR RESPONSE TO THIS SITUATION.

THANK YOU, GENERAL.

WE HAVE NOT SEEN ANYTHING OF THE SORT IN THE LAST FORTY YEARS.



DIPLOMACY IS THE ONLY SENSIBLE WAY OUT OF THIS CRIS...

THIS IS UNACCEPTABLE! HOW CAN WE BELIEVE YOU?! WE ARE BEING TRAPPED! THIS IS A HUMILIATION FOR NON-ALIGNED NATIONS!

MY COUNTRY IS NOT RESPONSIBLE FOR THIS ATTACK!



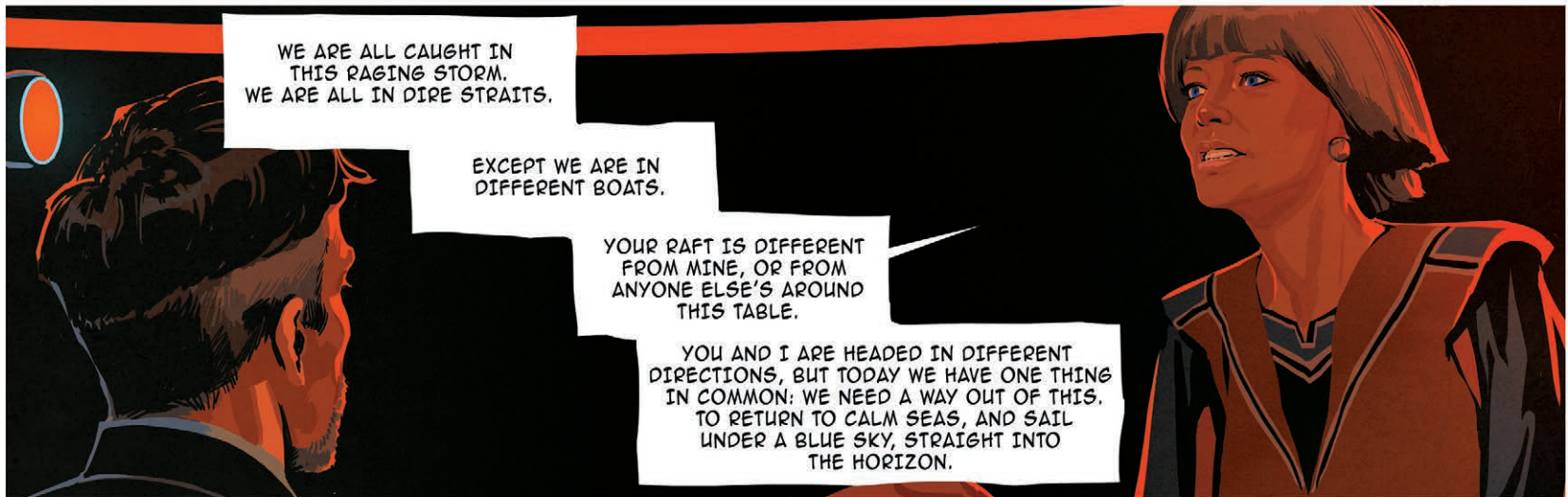
I WILL NOT STAY A MINUTE LONGER, OUR COUNTRY IS IN NO WAY ACCOUNTABLE TO NATO!

GENERAL! PLEASE, COME BACK...!



THIS MEETING IS AN AMBU...

GENERAL! THINK CAREFULLY BEFORE YOU SPEAK!



WE ARE ALL CAUGHT IN THIS RAGING STORM. WE ARE ALL IN DIRE STRAITS.

EXCEPT WE ARE IN DIFFERENT BOATS.

YOUR RAFT IS DIFFERENT FROM MINE, OR FROM ANYONE ELSE'S AROUND THIS TABLE.

YOU AND I ARE HEADED IN DIFFERENT DIRECTIONS, BUT TODAY WE HAVE ONE THING IN COMMON: WE NEED A WAY OUT OF THIS. TO RETURN TO CALM SEAS, AND SAIL UNDER A BLUE SKY, STRAIGHT INTO THE HORIZON.

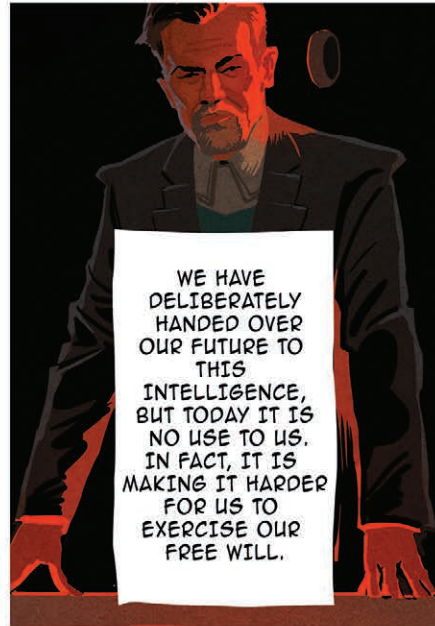


AND YET, AFTER THE SEA WARS, WE HAD SAID "NEVER AGAIN!"



WE ARE UNDER PRESSURE.

OUR RESPECTIVE AI SETS ARE INUNDATING US WITH DATA WE ARE NO LONGER ABLE TO PROCESS.



WE HAVE DELIBERATELY HANDED OVER OUR FUTURE TO THIS INTELLIGENCE, BUT TODAY IT IS NO USE TO US. IN FACT, IT IS MAKING IT HARDER FOR US TO EXERCISE OUR FREE WILL.



IT IS DISTORTING OUR THINKING, OUR CONSCIENCE.



IT IS STOPPING US FROM FINDING A PEACEFUL WAY FORWARD.

HISTORICALLY, OUR NATIONS HAVE OFTEN DISAGREED, AND THEY WILL AGAIN IN FUTURE. BECAUSE DIFFERENCES ARE A NECESSARY DRIVING FORCE FOR CIVILIZATIONS.



BUT IF WE WANT TO HAVE A FUTURE, THIS EMERGING CONFLICT MUST BE NIPPED IN THE BUD.

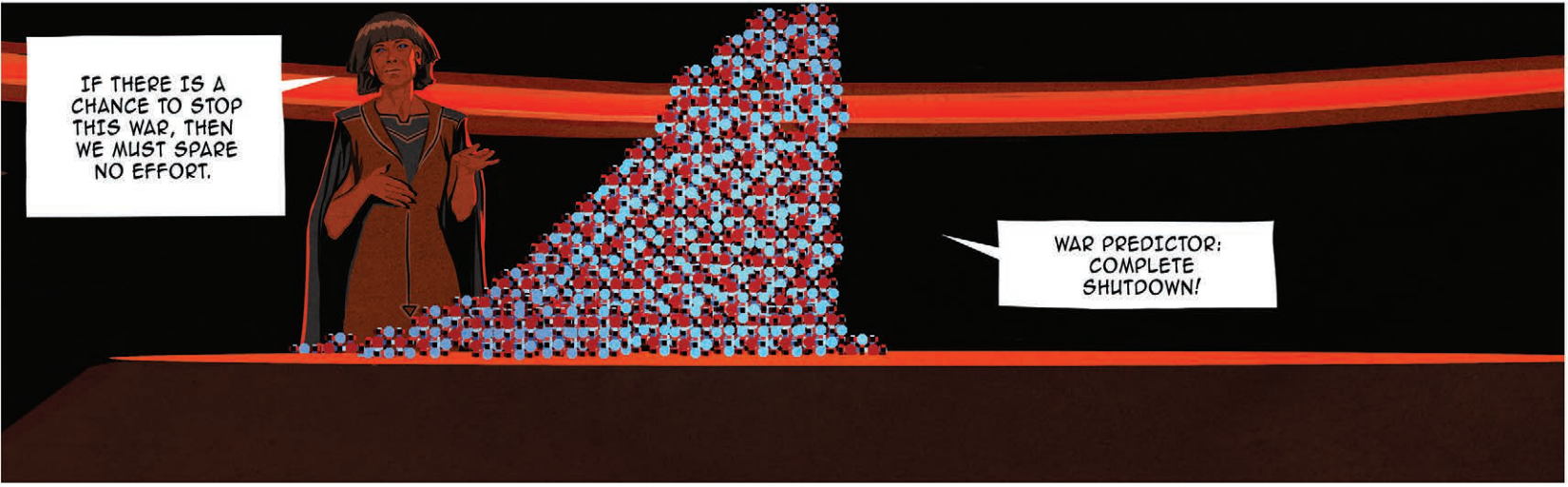
WE MUST FIND CONSENSUS TO MOVE FORWARD. BECAUSE THE DESTINY OF HUMANITY IS SOMEWHERE HERE, IN THIS ROOM, FOR US TO SEIZE.



I SUGGEST THAT WE TURN OFF OUR PREDICTIVE AI, IF YOU AGREE.

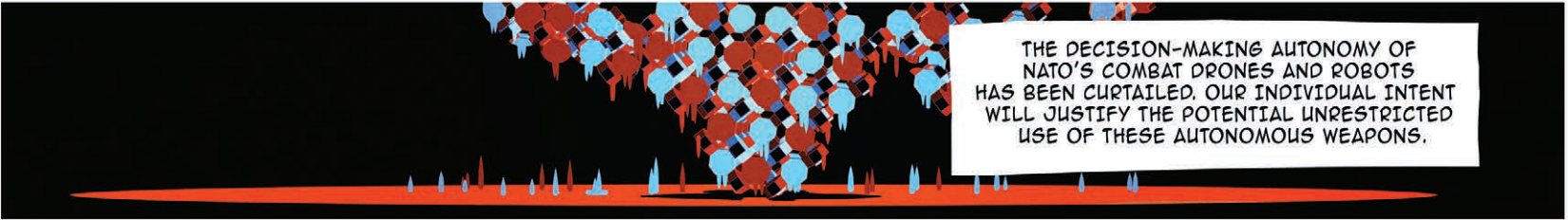


MS MASALA'S AI OFFLINE.

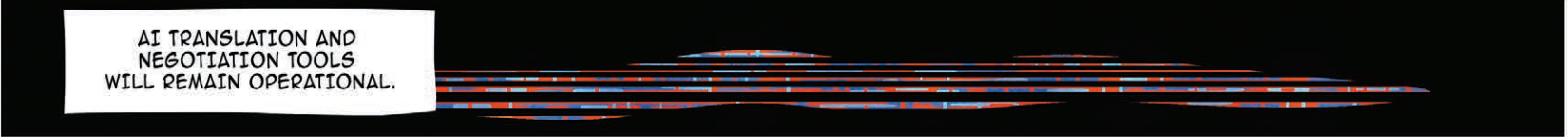


IF THERE IS A CHANCE TO STOP THIS WAR, THEN WE MUST SPARE NO EFFORT.

WAR PREDICTOR: COMPLETE SHUTDOWN!



THE DECISION-MAKING AUTONOMY OF NATO'S COMBAT DRONES AND ROBOTS HAS BEEN CURTAILED. OUR INDIVIDUAL INTENT WILL JUSTIFY THE POTENTIAL UNRESTRICTED USE OF THESE AUTONOMOUS WEAPONS.



AI TRANSLATION AND NEGOTIATION TOOLS WILL REMAIN OPERATIONAL.

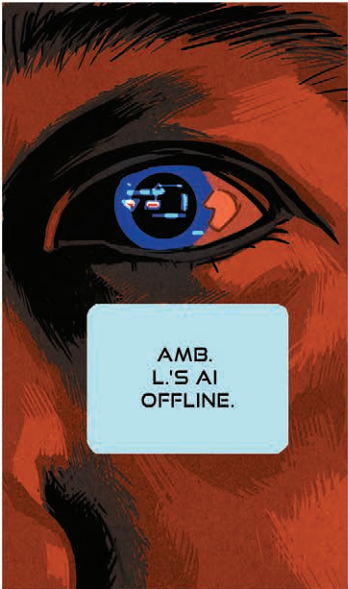


LADIES AND GENTLEMEN, I URGE YOU TO RISE TO THE OCCASION!!

YOU ARE MAKING HISTORY.



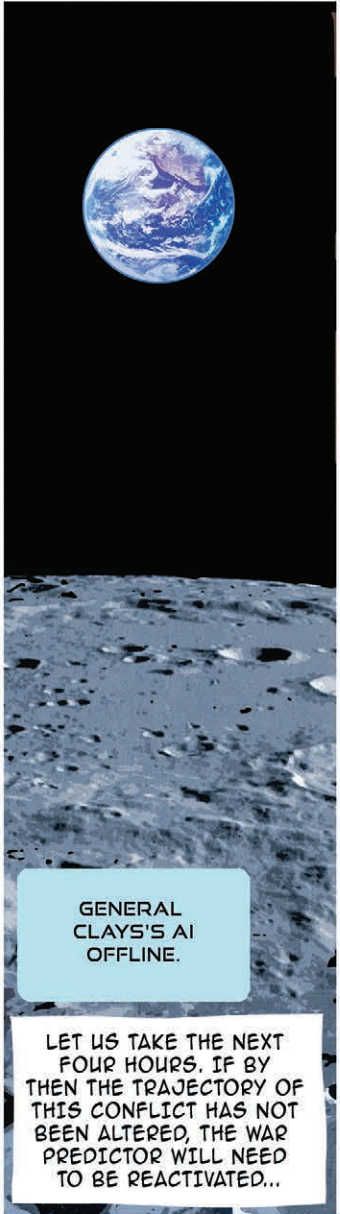
LET US ENVISION A FUTURE TOGETHER.



AMB. L'S AI OFFLINE.



AMB. M'S AI OFFLINE.



GENERAL CLAYS'S AI OFFLINE.

LET US TAKE THE NEXT FOUR HOURS. IF BY THEN THE TRAJECTORY OF THIS CONFLICT HAS NOT BEEN ALTERED, THE WAR PREDICTOR WILL NEED TO BE REACTIVATED...

NATO 2099 PROJECT TEAM

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The Futurological Congress, by Stanisław Lem
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The Silent War, by Tiago Torres da Silva



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NATO TROOPS ARE UNDERGOING
THEIR REGULAR ROTATION.

THREE COMPANIES IN EARTH ORBIT
HAVE BEEN MOBILIZED.

THEY WILL ARRIVE
AT THE FACILITY
IN LESS THAN 6 HOURS.

