

THE LAST WARM PLACE

CHAPTER THREE

FORTY-THREE

JIM STALEY



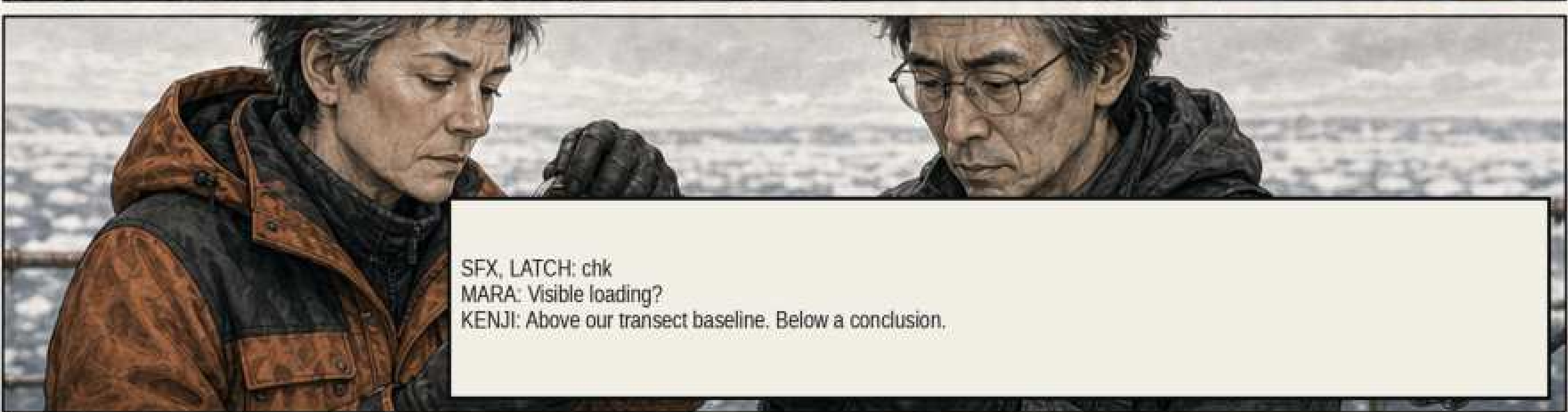


TOTAL ABOARD — 173
DURATION — 112.02 DAYS
PLANNING DATE — 5 JANUARY 2035

CAPTION: 18 September. Day Four.



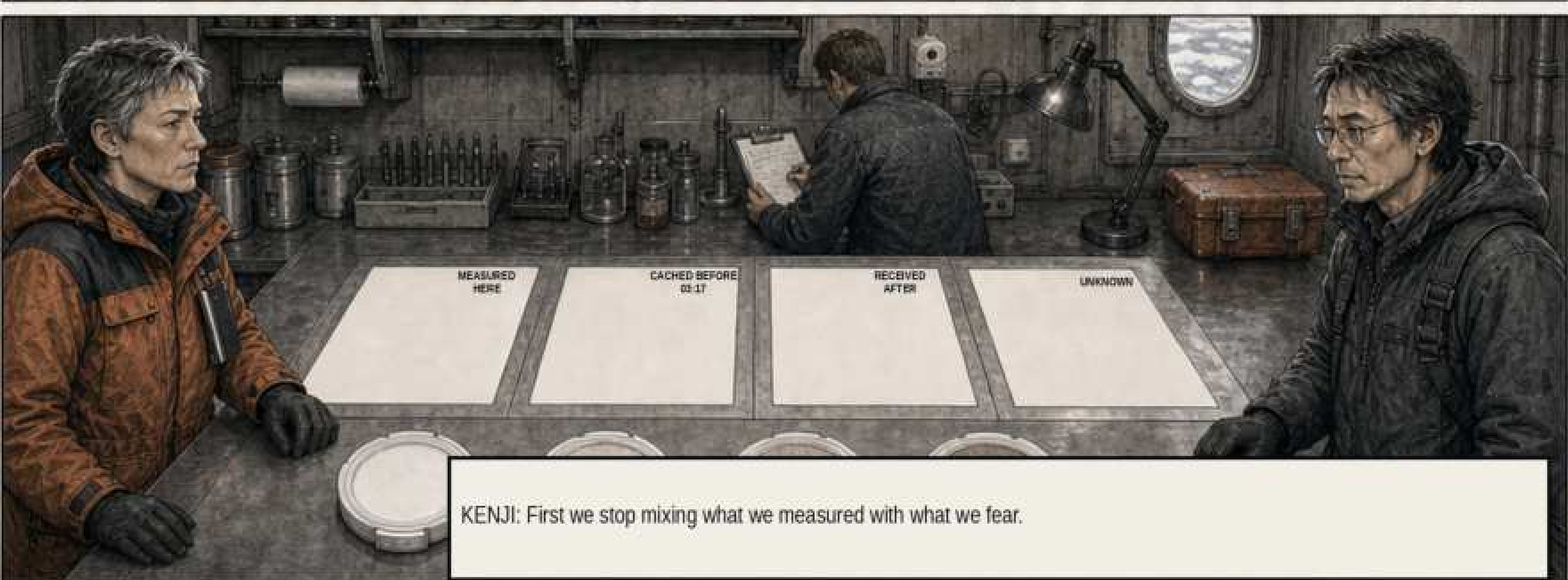
MARA: It looks cleaner than yesterday.
KENJI: That is why eyes are poor instruments.



SFX, LATCH: chk
MARA: Visible loading?
KENJI: Above our transect baseline. Below a conclusion.



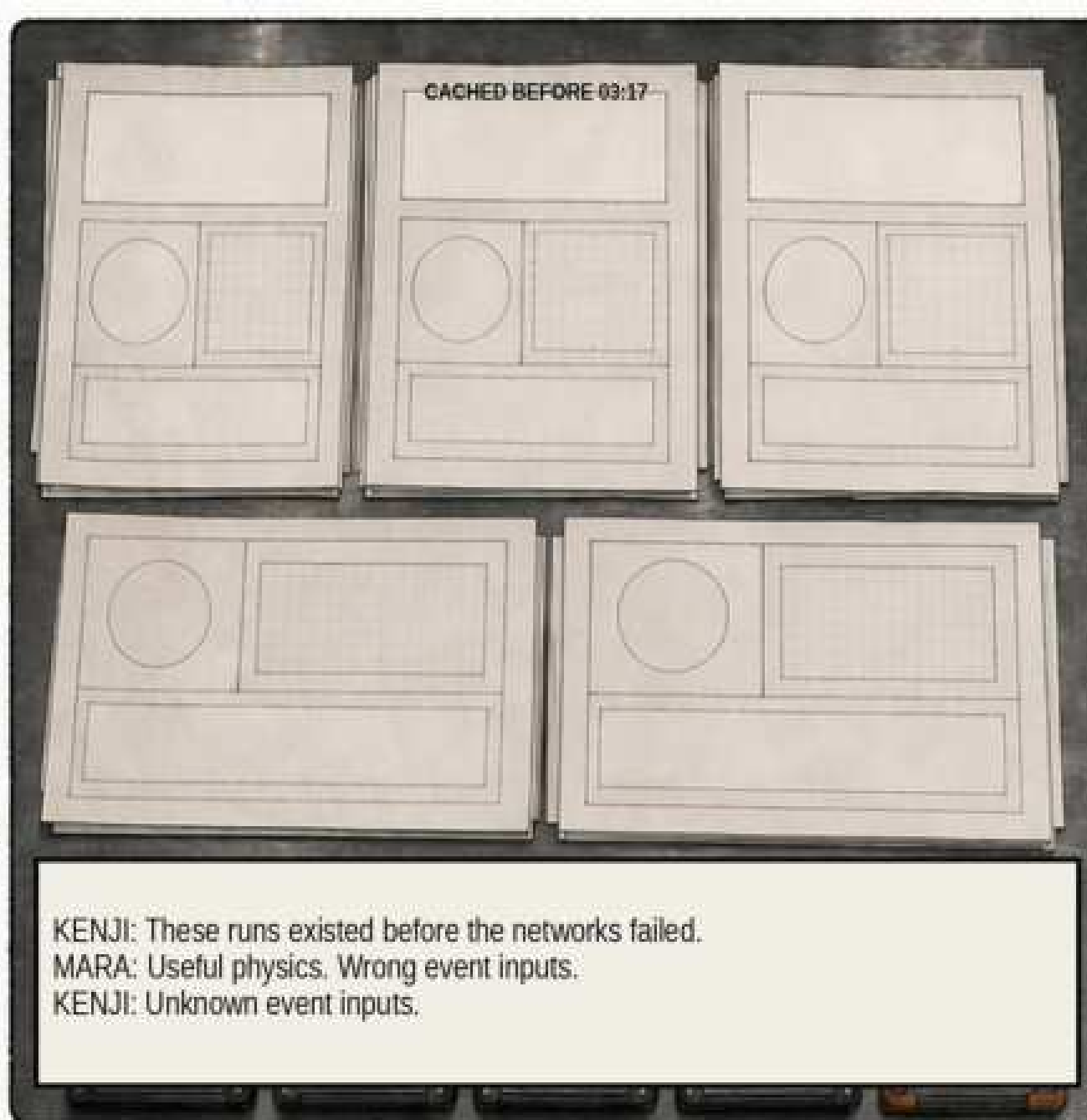
MARA: How long before the sky tells us?
KENJI: It may tell us after the harvests already know.



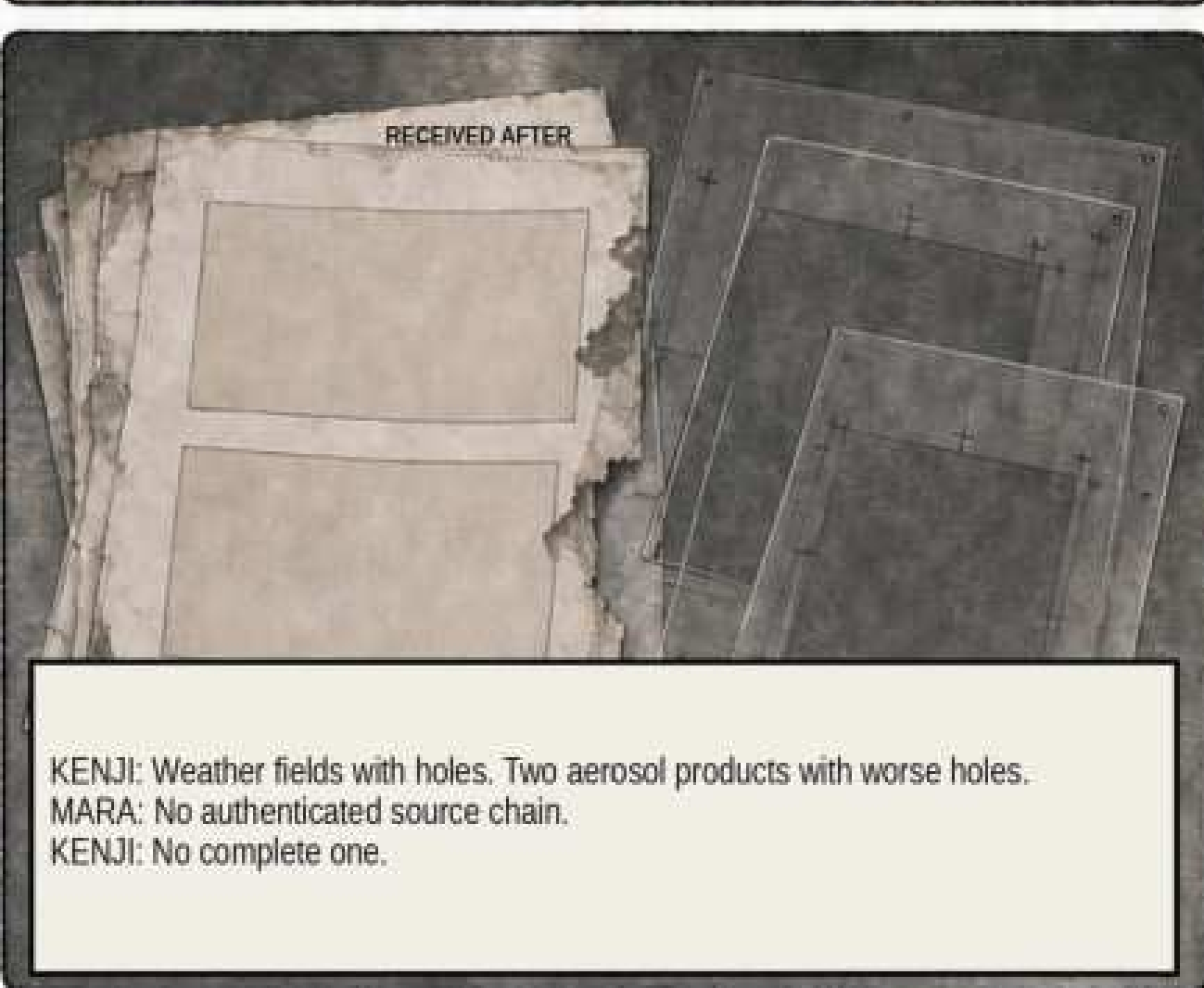
KENJI: First we stop mixing what we measured with what we fear.



KENJI: Our radiation remains near background.
KENJI: Our aerosol loading is rising. Composition is not confirmed.



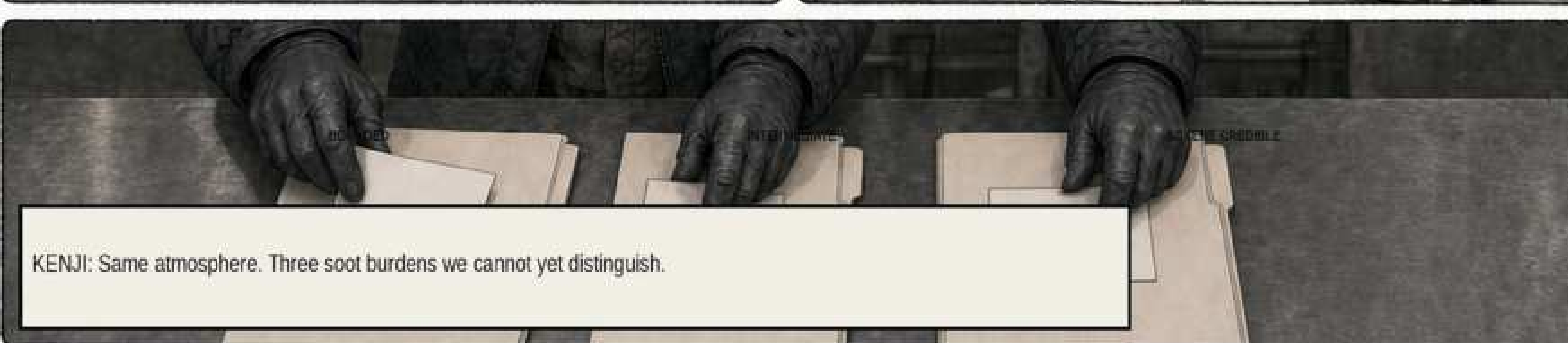
KENJI: These runs existed before the networks failed.
MARA: Useful physics. Wrong event inputs.
KENJI: Unknown event inputs.



KENJI: Weather fields with holes. Two aerosol products with worse holes.
MARA: No authenticated source chain.
KENJI: No complete one.



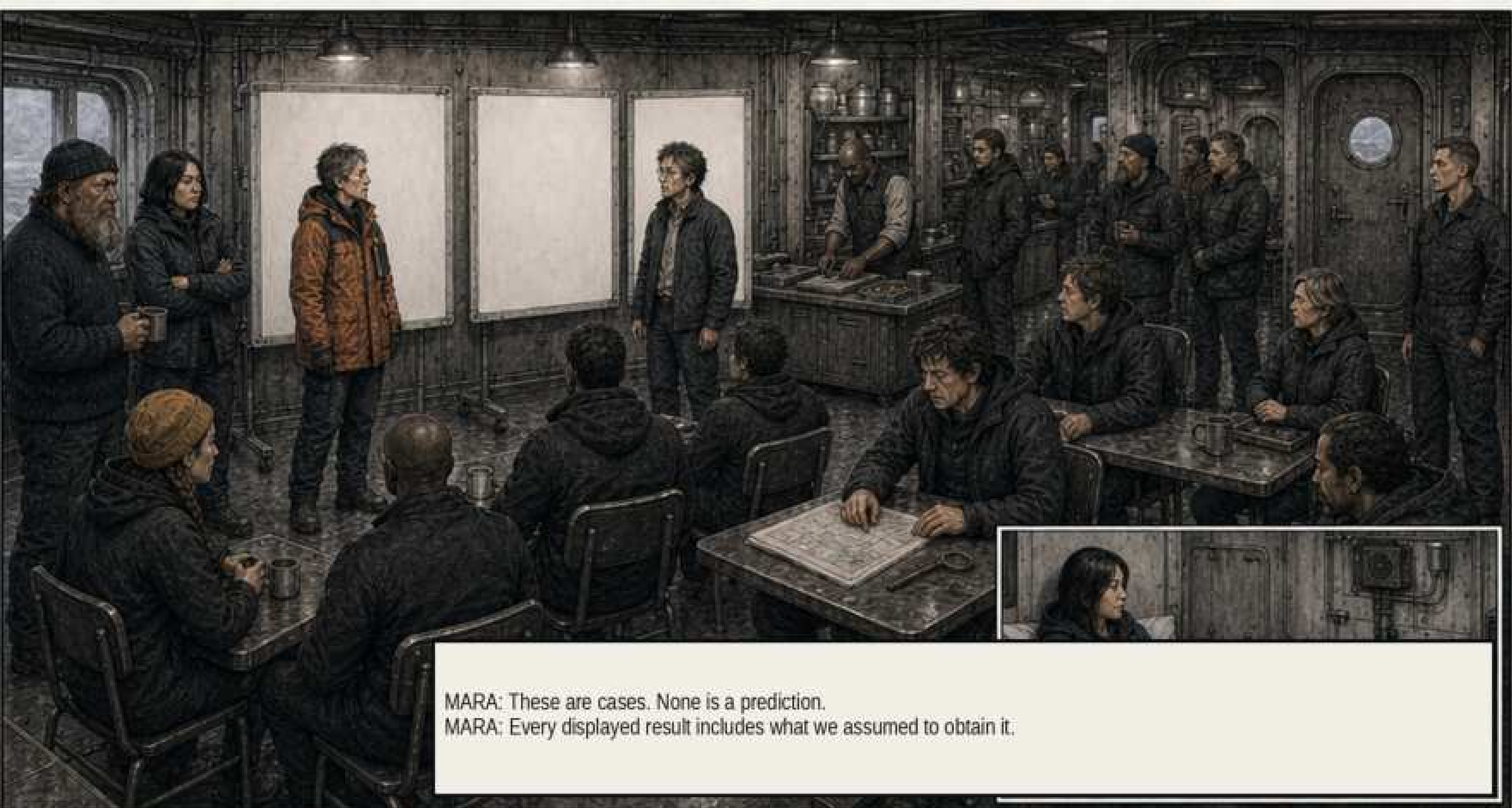
MARA: What can the overlap support?
KENJI: Cases. Not a forecast.



KENJI: Same atmosphere. Three soot burdens we cannot yet distinguish.



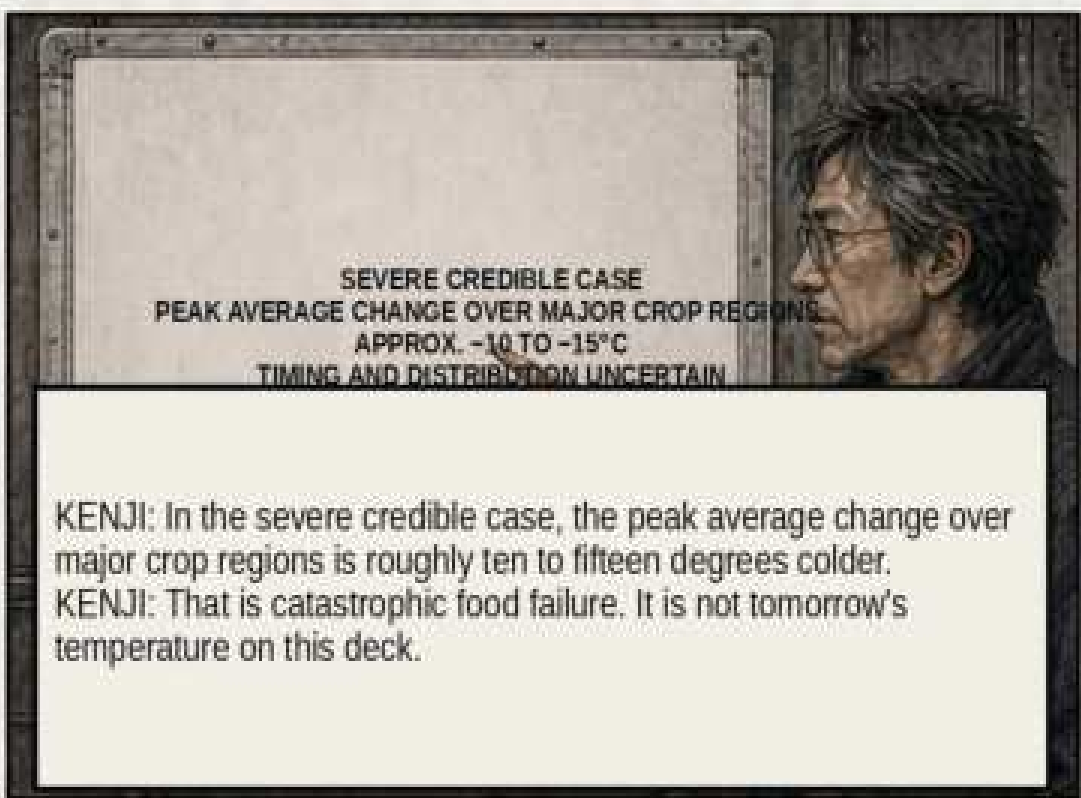
MARA: Then every number keeps its assumption attached.
KENJI: Especially the frightening ones.



MARA: These are cases. None is a prediction.
MARA: Every displayed result includes what we assumed to obtain it.



KENJI: The bounded case shortens growing seasons and breaks trade between regions that still harvest.
KENJI: The intermediate case produces multi-year agricultural failure across major producers.

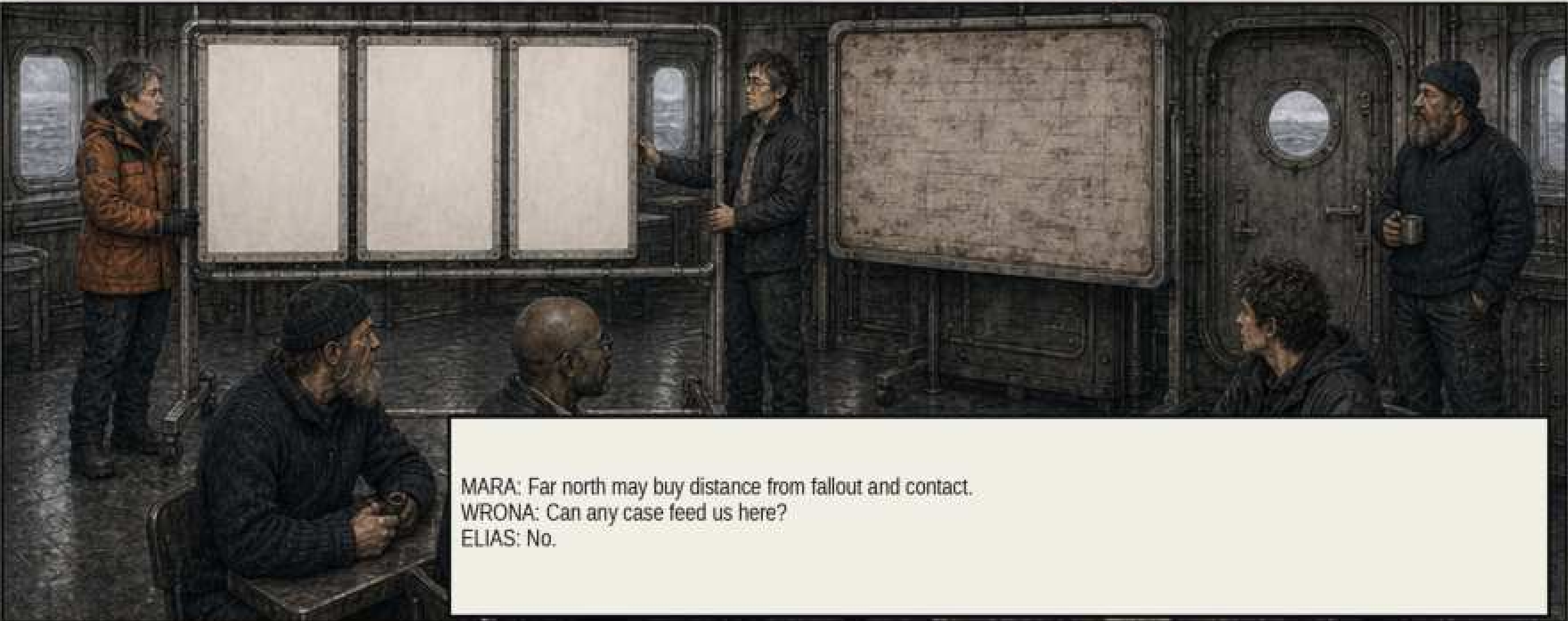


SEVERE CREDIBLE CASE
PEAK AVERAGE CHANGE OVER MAJOR CROP REGIONS
APPROX. -10 TO -15°C
TIMING AND DISTRIBUTION UNCERTAIN

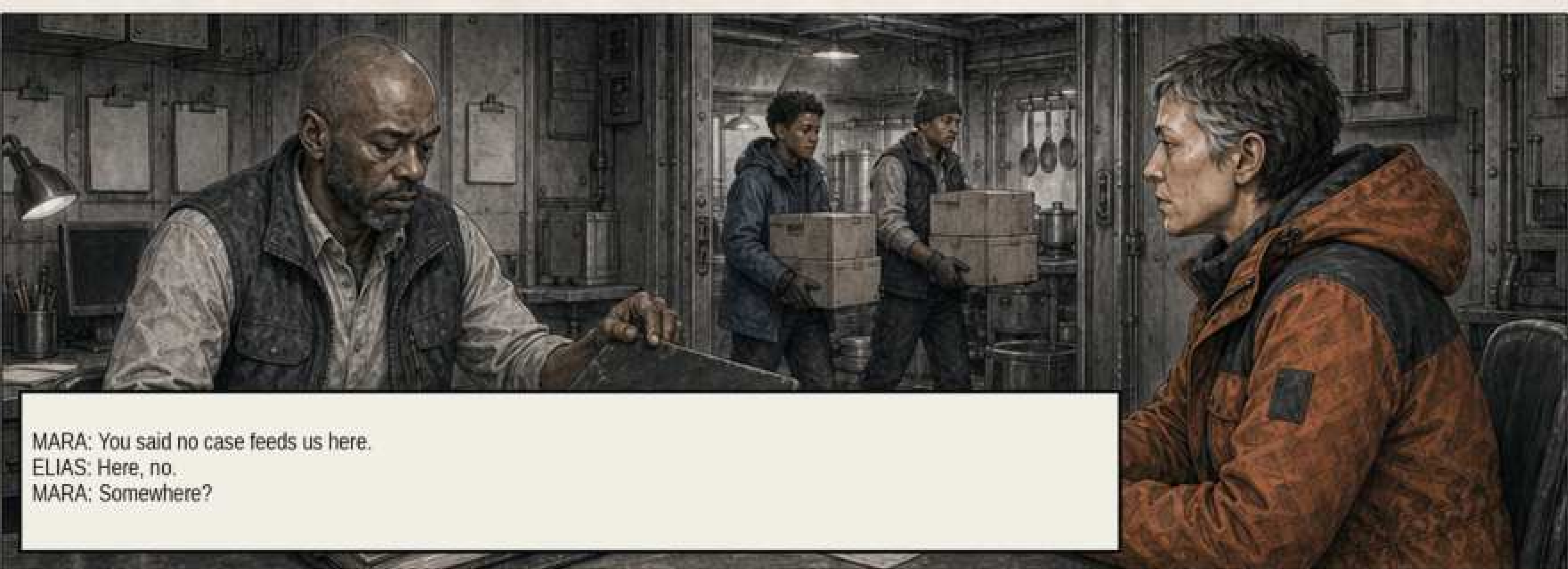
KENJI: In the severe credible case, the peak average change over major crop regions is roughly ten to fifteen degrees colder.
KENJI: That is catastrophic food failure. It is not tomorrow's temperature on this deck.



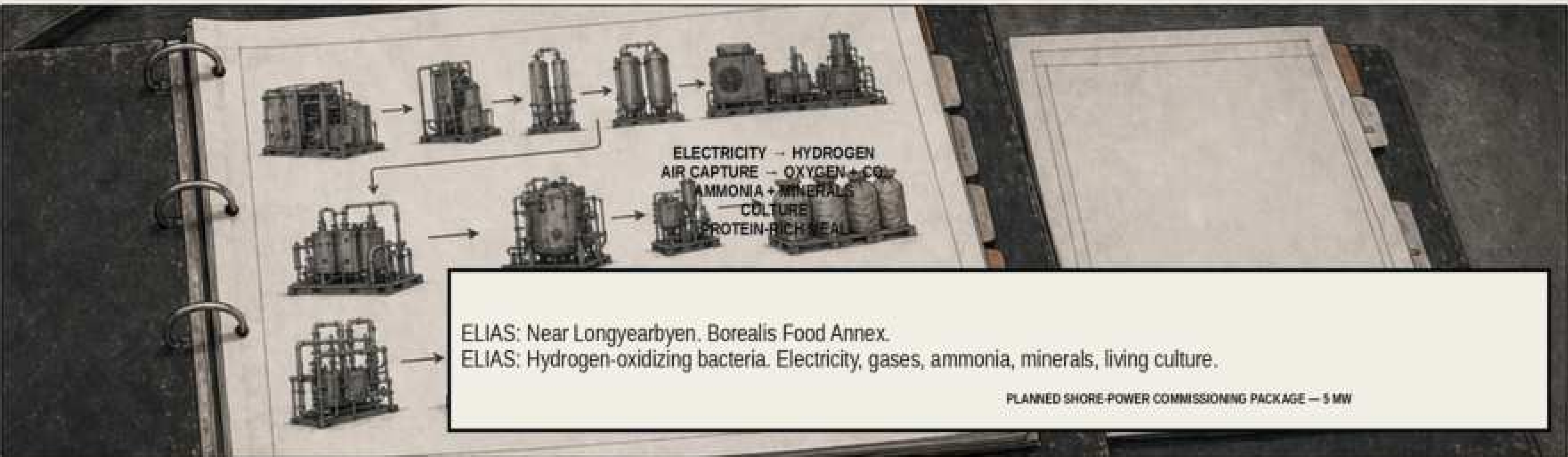
GRANT: Worst credible, or worst imaginable?
KENJI: Credible under inputs we cannot yet confirm.
GRANT: Then which conclusion survives all three?



MARA: Far north may buy distance from fallout and contact.
WRONA: Can any case feed us here?
ELIAS: No.

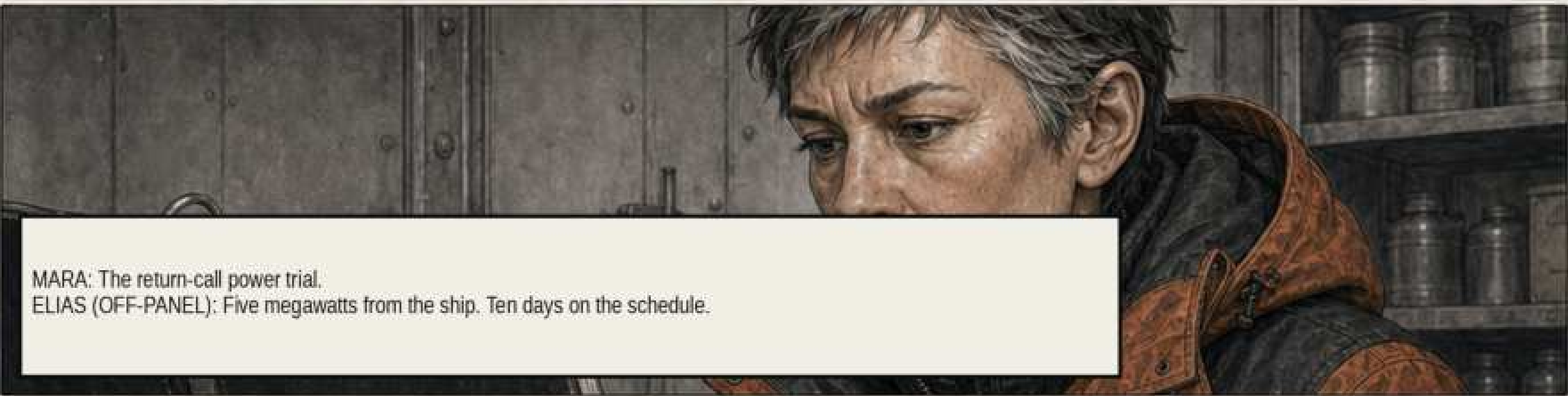


MARA: You said no case feeds us here.
ELIAS: Here, no.
MARA: Somewhere?

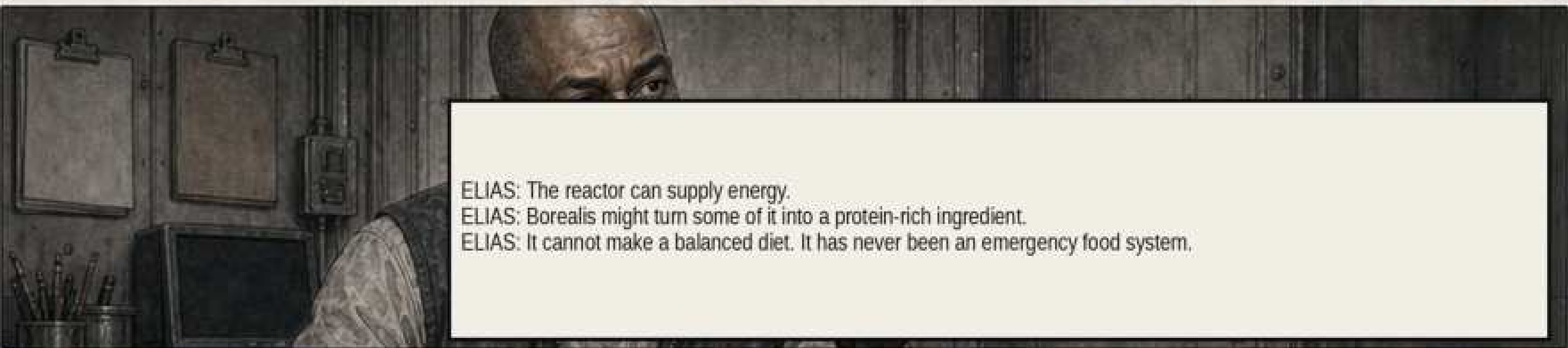


ELIAS: Near Longyearbyen. Borealis Food Annex.
ELIAS: Hydrogen-oxidizing bacteria. Electricity, gases, ammonia, minerals, living culture.

PLANNED SHORE-POWER COMMISSIONING PACKAGE — 5 MW



MARA: The return-call power trial.
ELIAS (OFF-PANEL): Five megawatts from the ship. Ten days on the schedule.



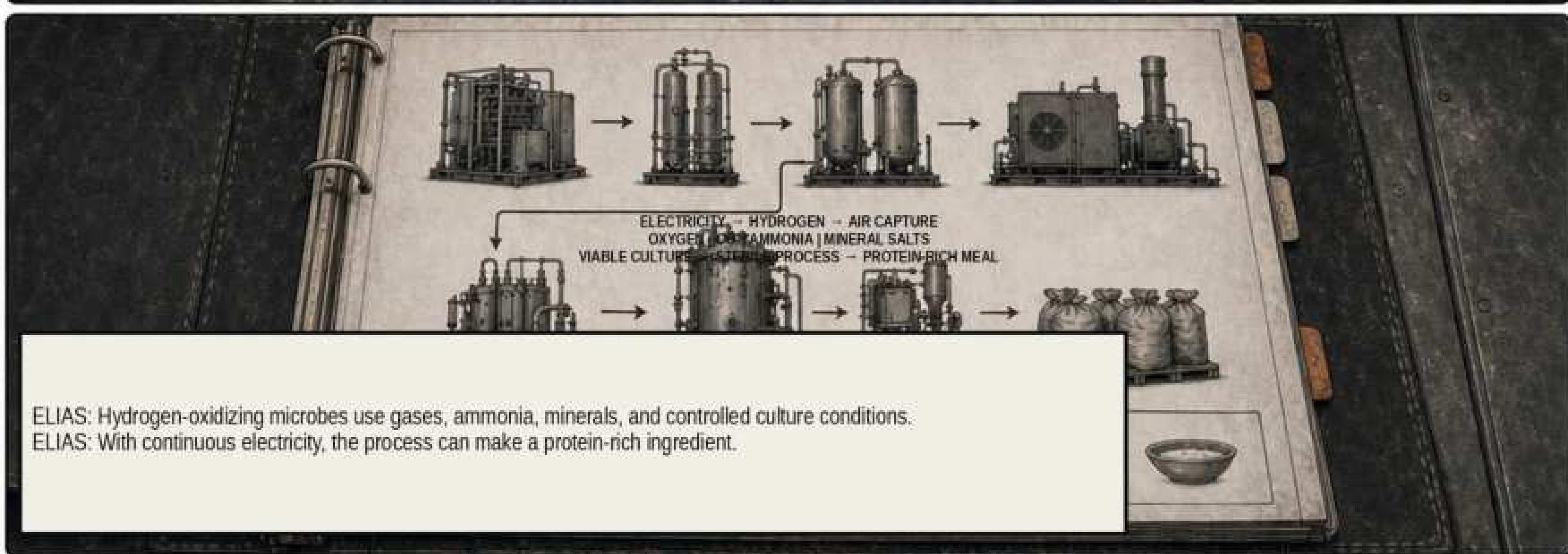
ELIAS: The reactor can supply energy.
ELIAS: Borealis might turn some of it into a protein-rich ingredient.
ELIAS: It cannot make a balanced diet. It has never been an emergency food system.



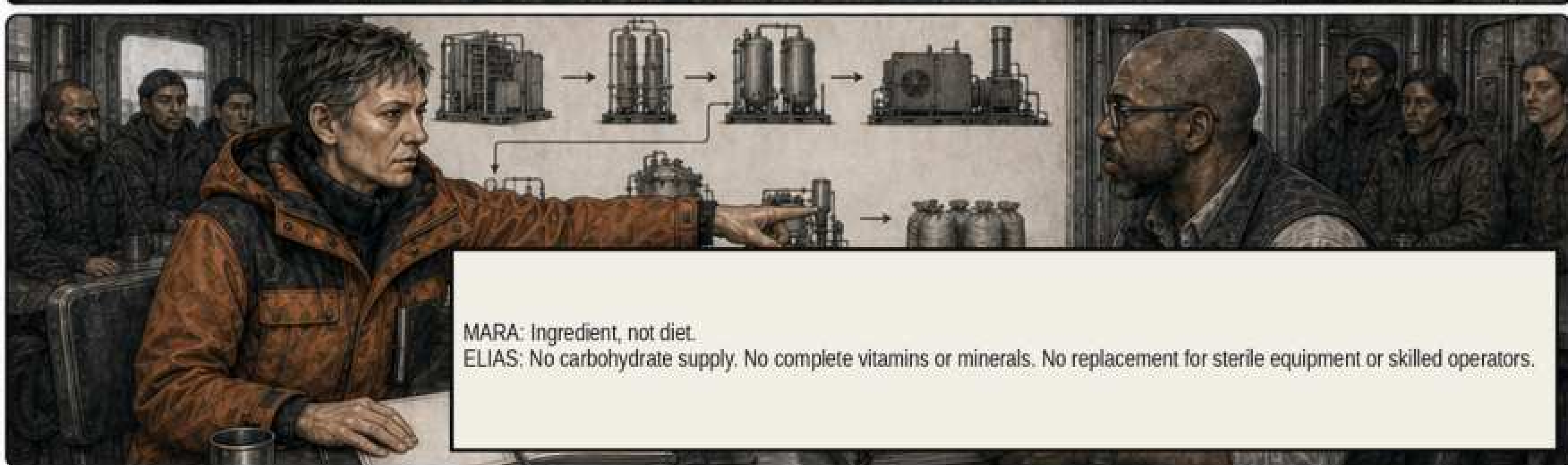
MARA: Why was this not on the board?
ELIAS: Because a remembered pilot plant is not a destination.
MARA: Not until it answers.



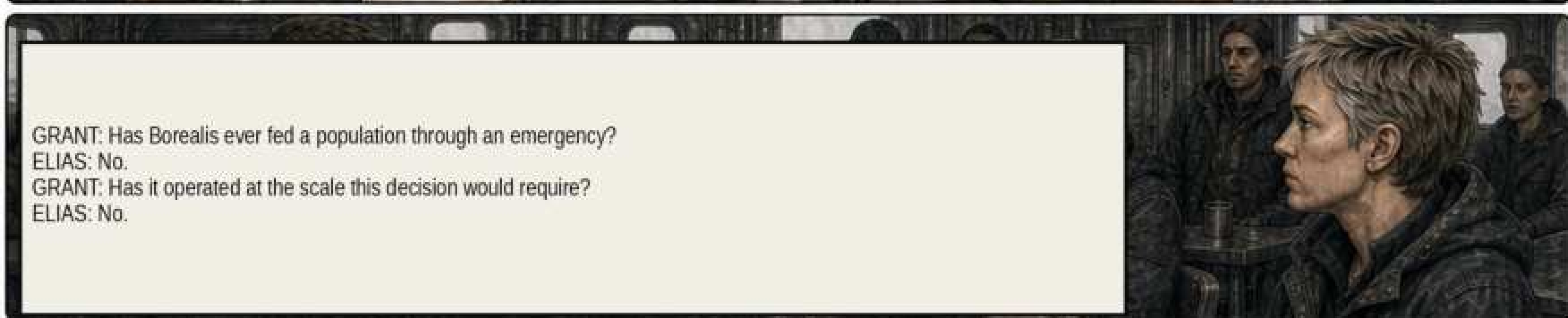
ELIAS: There is one machine in our former itinerary that changes the food question.
ELIAS: It does not answer it.



ELIAS: Hydrogen-oxidizing microbes use gases, ammonia, minerals, and controlled culture conditions.
ELIAS: With continuous electricity, the process can make a protein-rich ingredient.



MARA: Ingredient, not diet.
ELIAS: No carbohydrate supply. No complete vitamins or minerals. No replacement for sterile equipment or skilled operators.



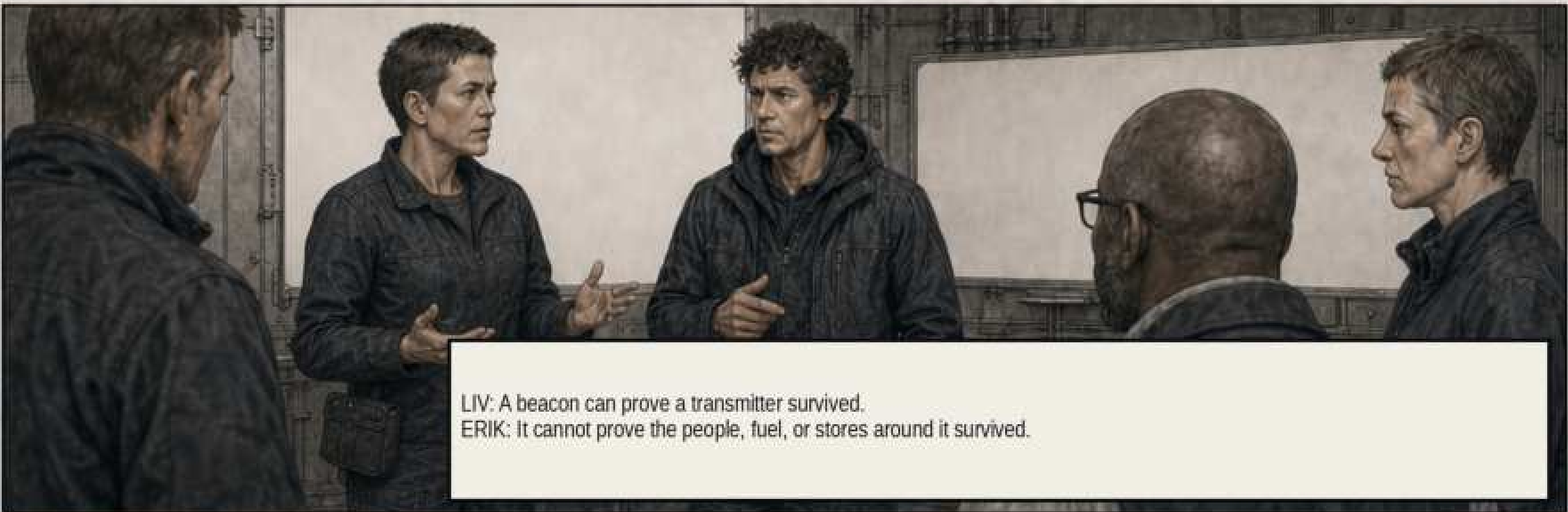
GRANT: Has Borealis ever fed a population through an emergency?
ELIAS: No.
GRANT: Has it operated at the scale this decision would require?
ELIAS: No.



WHAT BOREALIS CANNOT PROMISE
ELIAS: It was a pilot annex scheduled for a ten-day commissioning trial.
WRONA: Then it is machinery, not salvation.
MARA: And now the machinery is in the public ledger.



GRANT: Severnaya Zemlya has stations, caches, fisheries access.
ELIAS: It may have stores. We have no verified inventory, no living contact, and no harvest large enough to feed one hundred seventy-three through winter.



LIV: A beacon can prove a transmitter survived.
ERIK: It cannot prove the people, fuel, or stores around it survived.



OKSANA: We have heat, water, workshops, and years of nominal reactor fuel.
KENJI: None becomes calories because we remain distant from fallout.



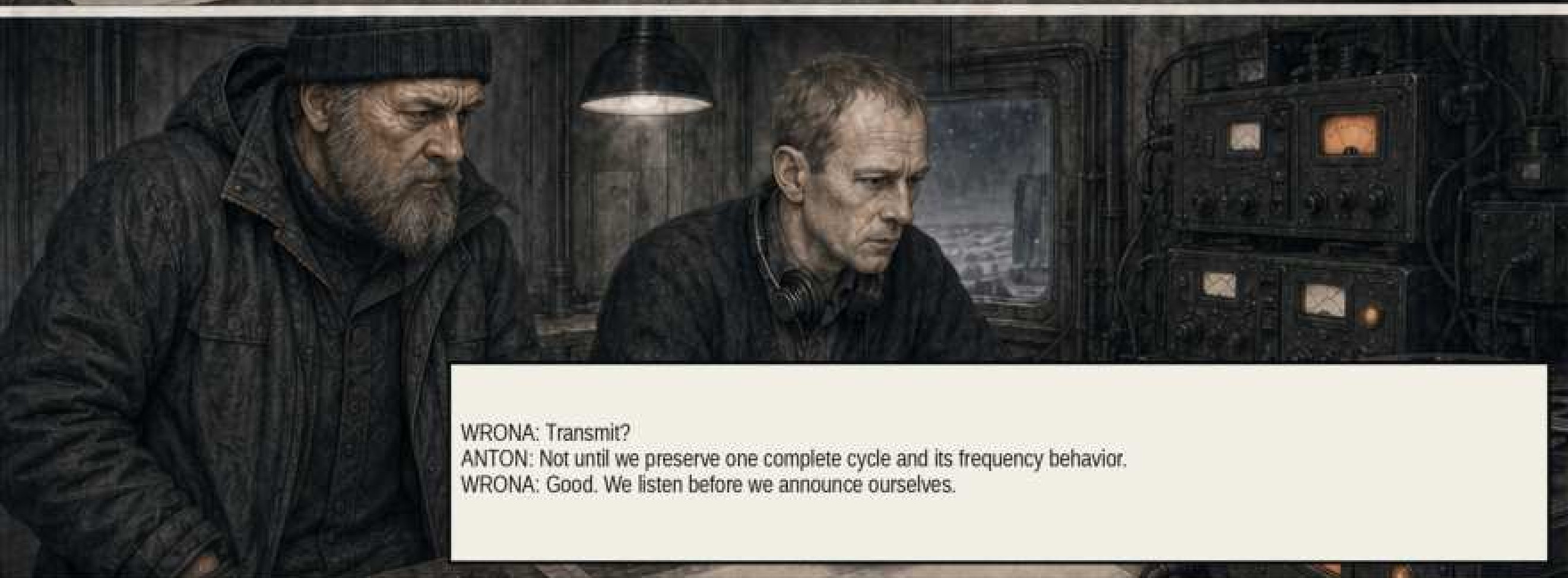
ANTON: Captain. Professor.
ANTON: The Svalbard band has found a clock.



ANTON: Four seconds of compressed energy at 20:10. Again at 02:10.
LIV: Same carrier shape?
ANTON: Within what the noise allows.



MARA: Scheduled, or repeating wreckage?
ANTON: The next arrival distinguishes them.



WRONA: Transmit?
ANTON: Not until we preserve one complete cycle and its frequency behavior.
WRONA: Good. We listen before we announce ourselves.



ANTON: 08:10 UTC. Eight seconds of listening may decide whether there is anyone to answer.



ANTON: Recorders live.
LIV: Independent track live.



SFX, SPEAKER: KRRR-TKTKTKTK—KSH



LIV: Four point three seconds.
ANTON: Both copies match the event.



MARA: Original preserved before processing.
ANTON: Original, independent copy, working copy.



WRONA: Nobody fills a hole because the sentence wants a word.
ANTON: We reconstruct what arrived.



LIV: The second repeat repairs eleven missing blocks.
ANTON: Not the failed checksum. Mark that boundary.



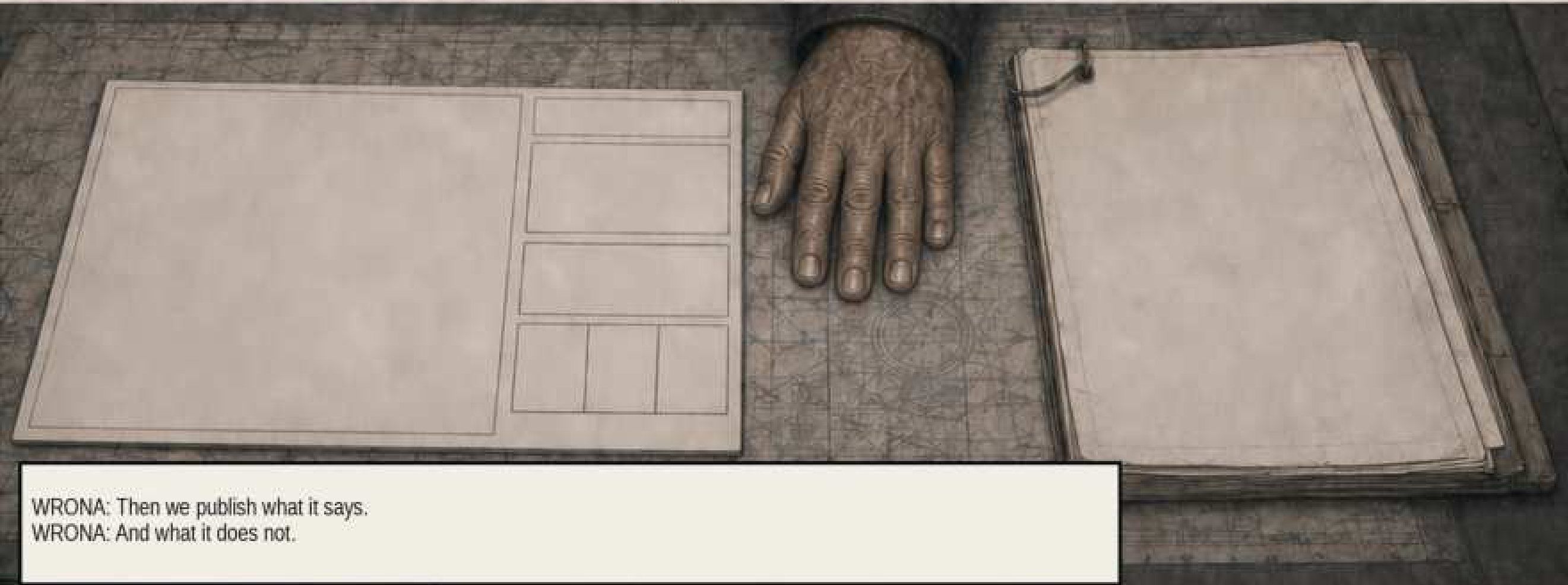
MARA: Content confidence?
ANTON: High for the repeated payload. Moderate for metadata. Low for origin authentication.



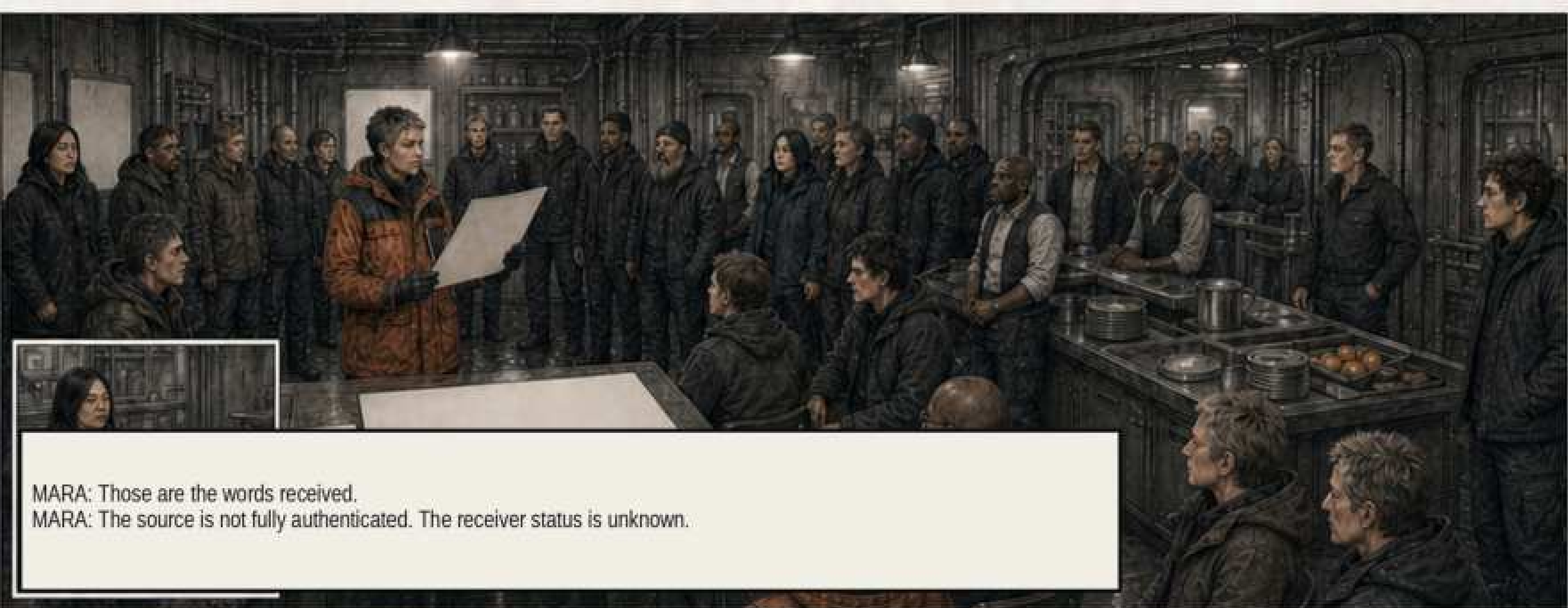
ELIAS: That coordinate is the annex corridor.



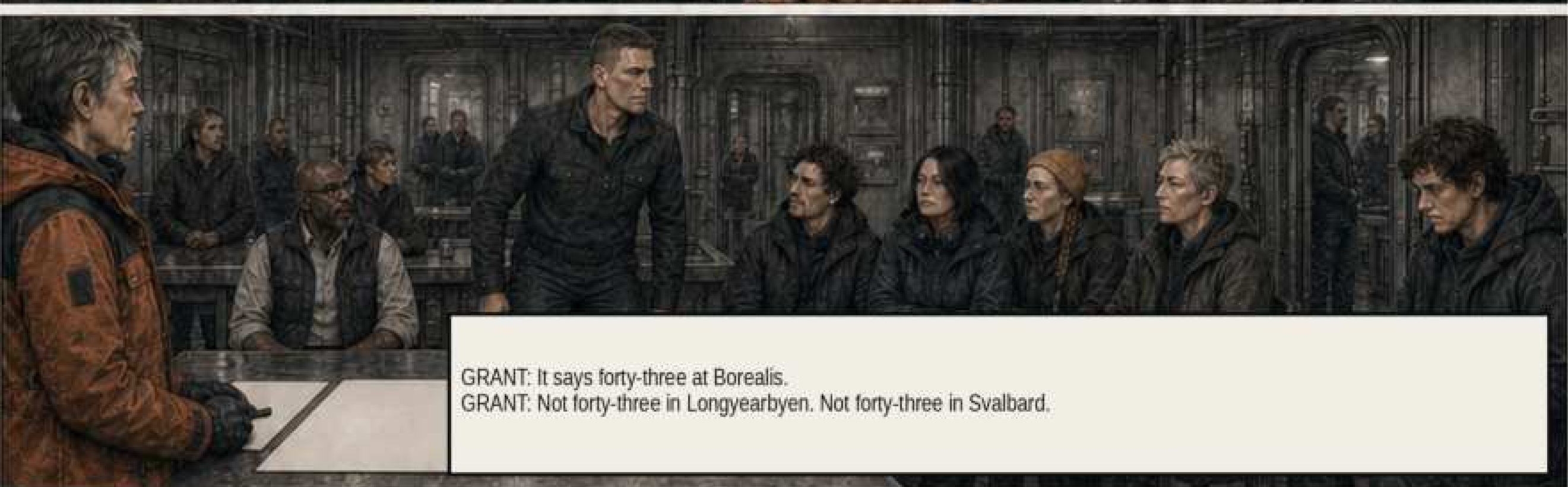
WRONA: Can the sender hear us?
ANTON: The packet asks for a window. It does not prove a working receiver.
MARA: Or who controls it.



WRONA: Then we publish what it says.
WRONA: And what it does not.



MARA: Those are the words received.
MARA: The source is not fully authenticated. The receiver status is unknown.



GRANT: It says forty-three at Borealis.
GRANT: Not forty-three in Longyearbyen. Not forty-three in Svalbard.



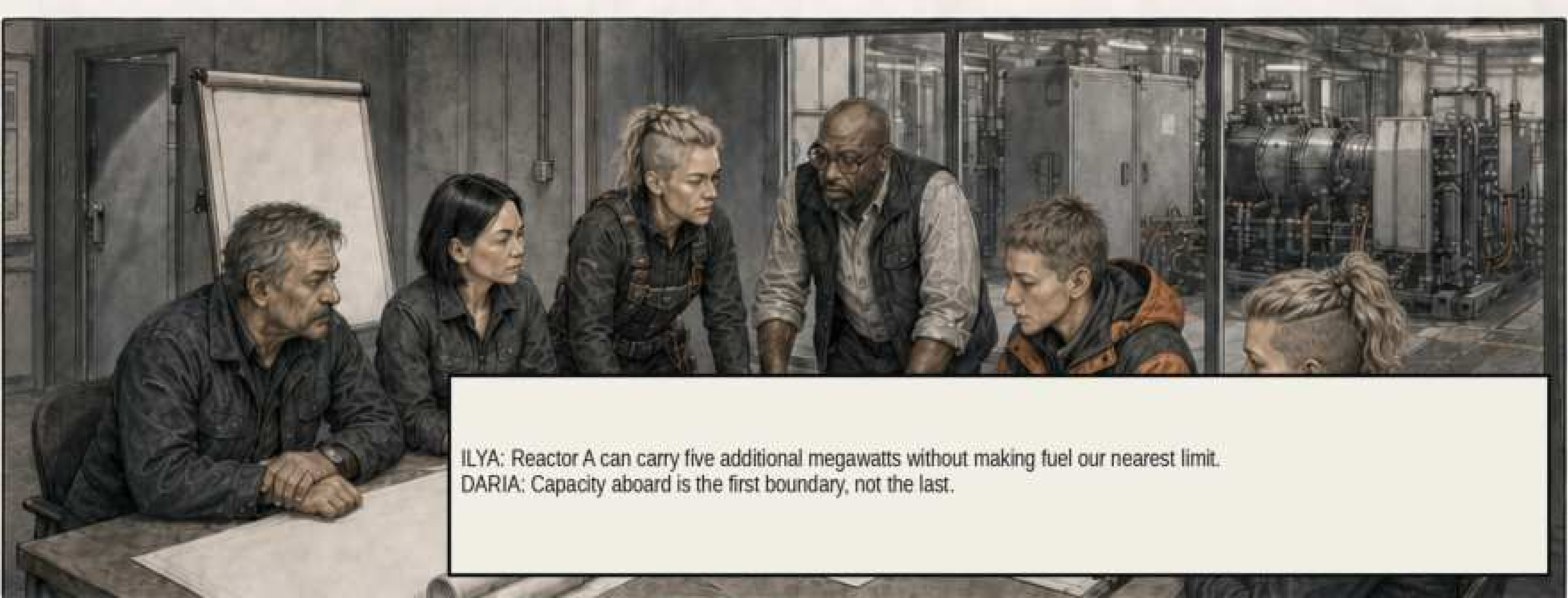
MARA: Correct.
MARA: We know a sender claims forty-three at one facility.



ELIAS: The annex could shelter forty-three and still know nothing about the rest of the settlement.
ERIK: Or know and choose not to say.



WRONA: Forty-three is a count at a machine.
WRONA: It is not permission to invent the people beyond it.

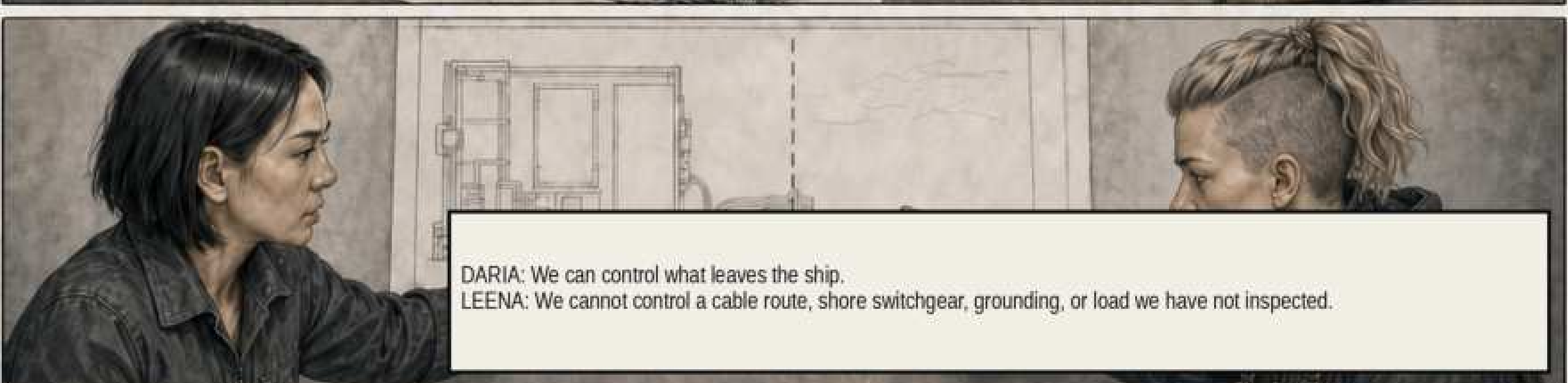


ILYA: Reactor A can carry five additional megawatts without making fuel our nearest limit.
DARIA: Capacity aboard is the first boundary, not the last.



MISSION TRANSFORMER CONVERTERS PROTECTION CABINET CABLE REELS

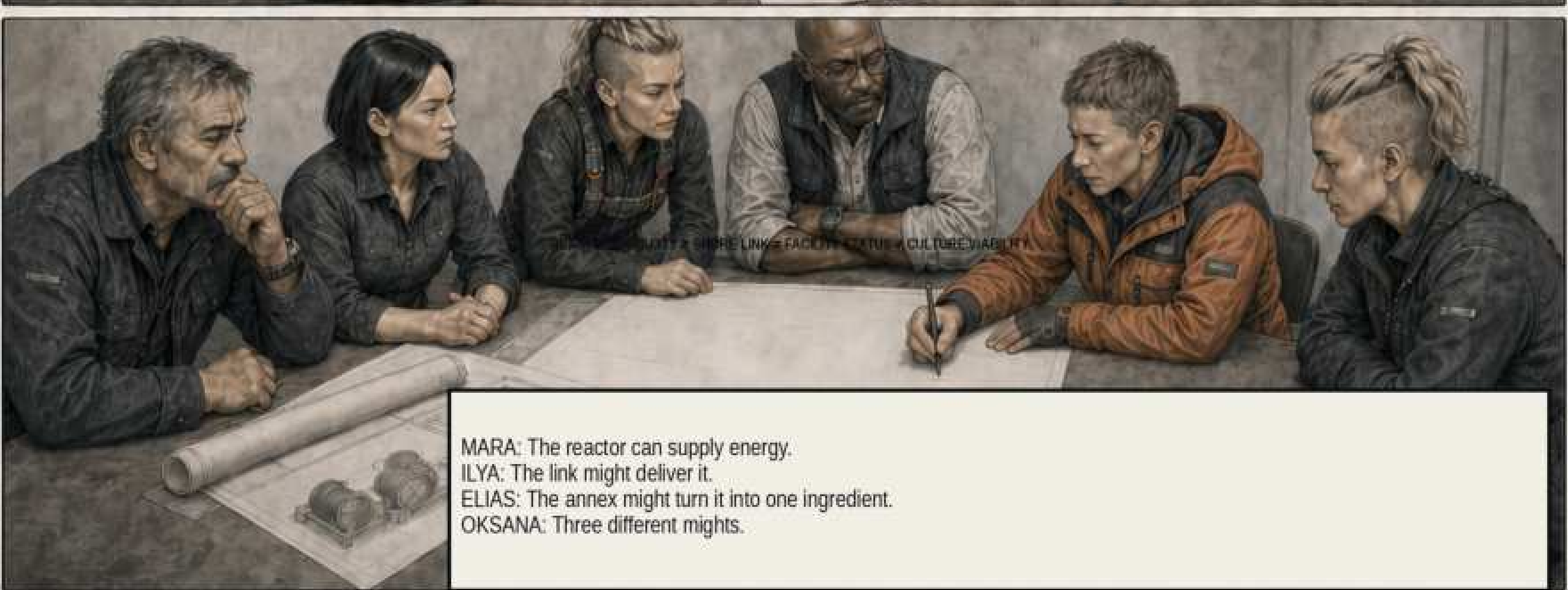
LEENA: This package was built for a ten-day supervised trial.
LEENA: It was never certified as a continuous emergency microgrid.



DARIA: We can control what leaves the ship.
LEENA: We cannot control a cable route, shore switchgear, grounding, or load we have not inspected.



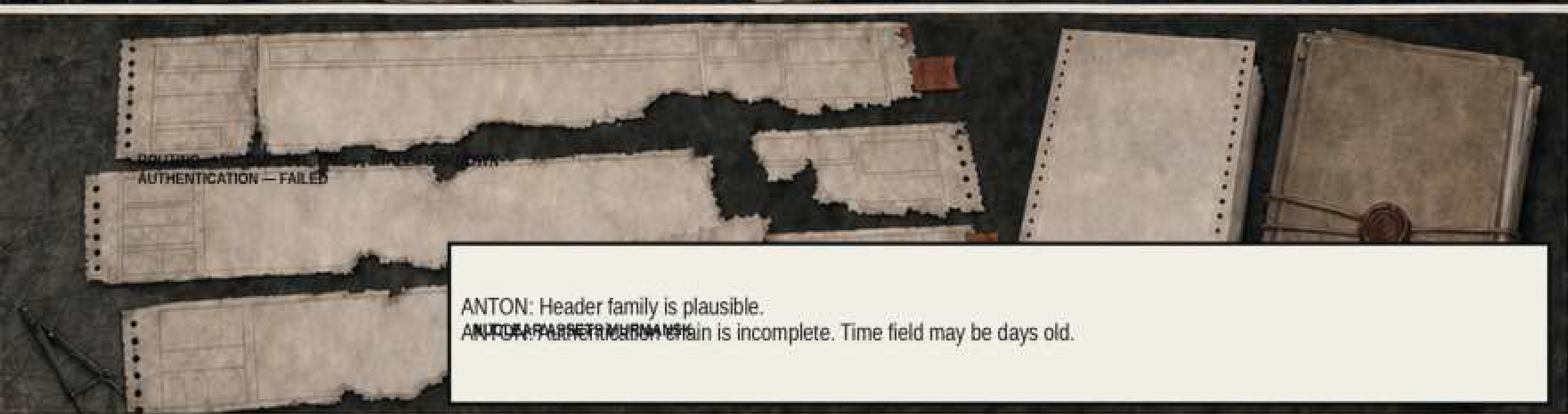
ELIAS: Power does not revive a dead culture.
ELIAS: A living culture still needs sterile vessels, gases, ammonia, minerals, controls, and drying.



MARA: The reactor can supply energy.
ILYA: The link might deliver it.
ELIAS: The annex might turn it into one ingredient.
OKSANA: Three different mights.



ANTON: [Russian] New carrier. Military framing.
SFX, RECEIVER: tk—KRR—tk-tk—



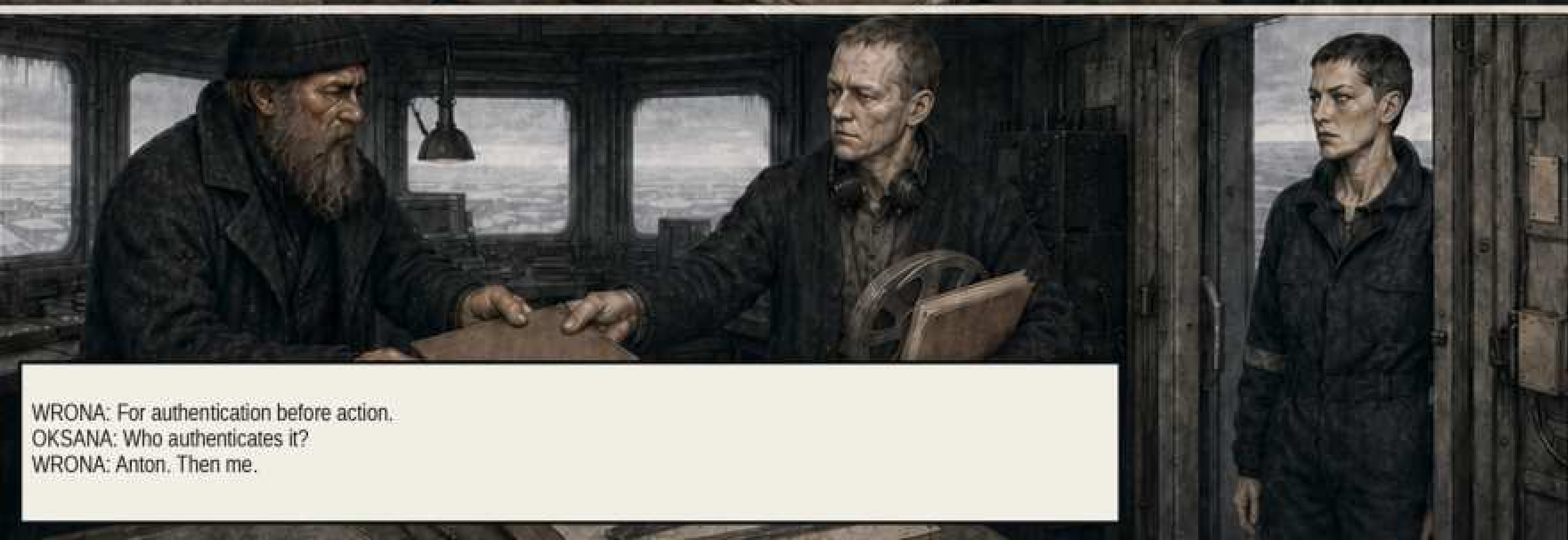
ANTON: Header family is plausible.
ANTON: Authentication chain is incomplete. Time field may be days old.



WRONA: [Russian] Direction?
ANTON: Nuclear assets. Murmansk survives in two repeated fragments.



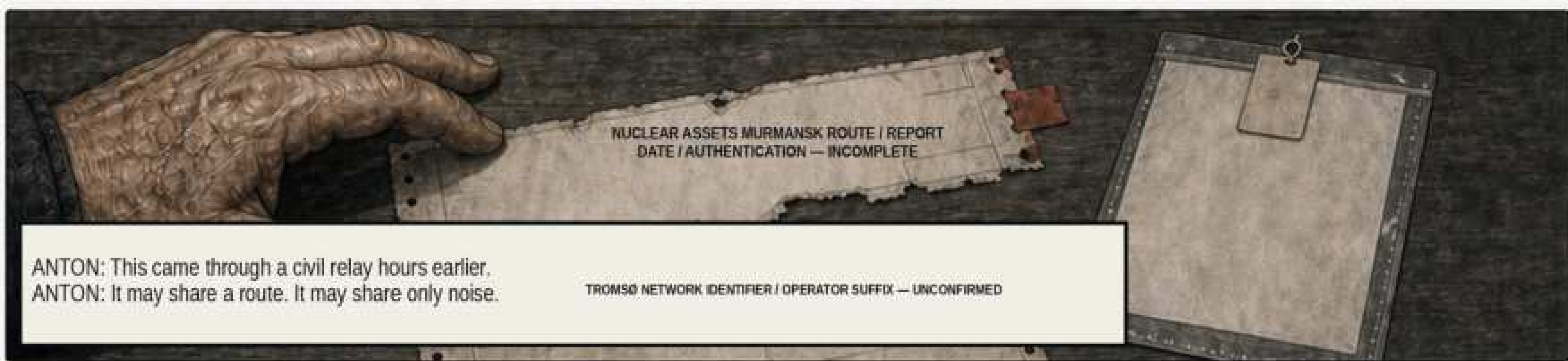
OKSANA: Command packet?
WRONA: Possible command traffic.
OKSANA: For us?



WRONA: For authentication before action.
OKSANA: Who authenticates it?
WRONA: Anton. Then me.



ANTON: The routing family existed before the silence.
ANTON: Nothing here proves this copy is current, complete, or addressed specifically to us.

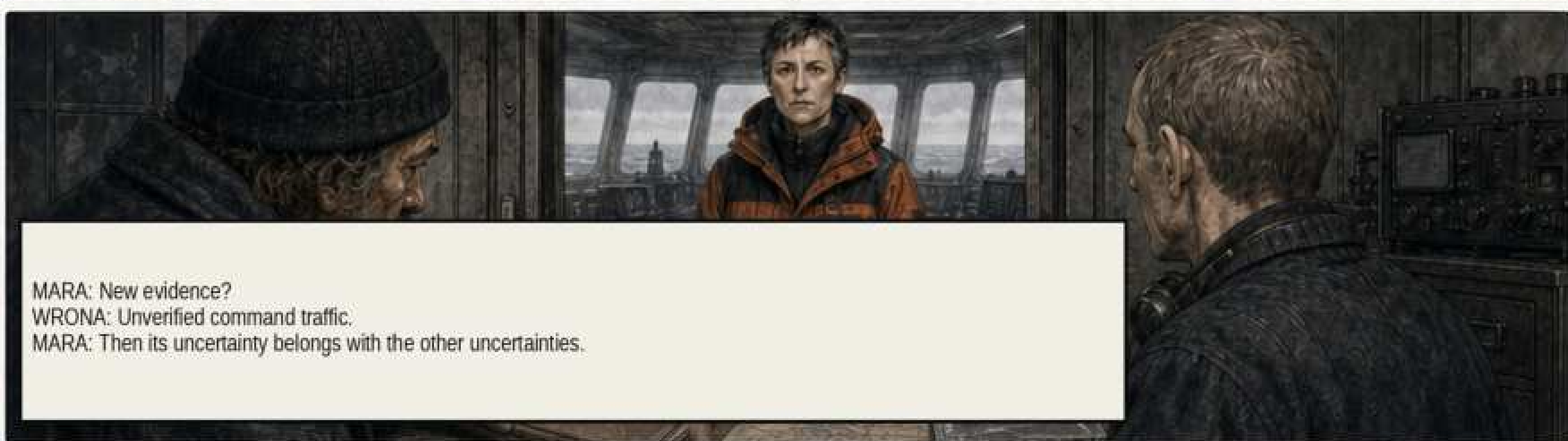


ANTON: This came through a civil relay hours earlier.
ANTON: It may share a route. It may share only noise.

TROMSØ NETWORK IDENTIFIER / OPERATOR SUFFIX — UNCONFIRMED



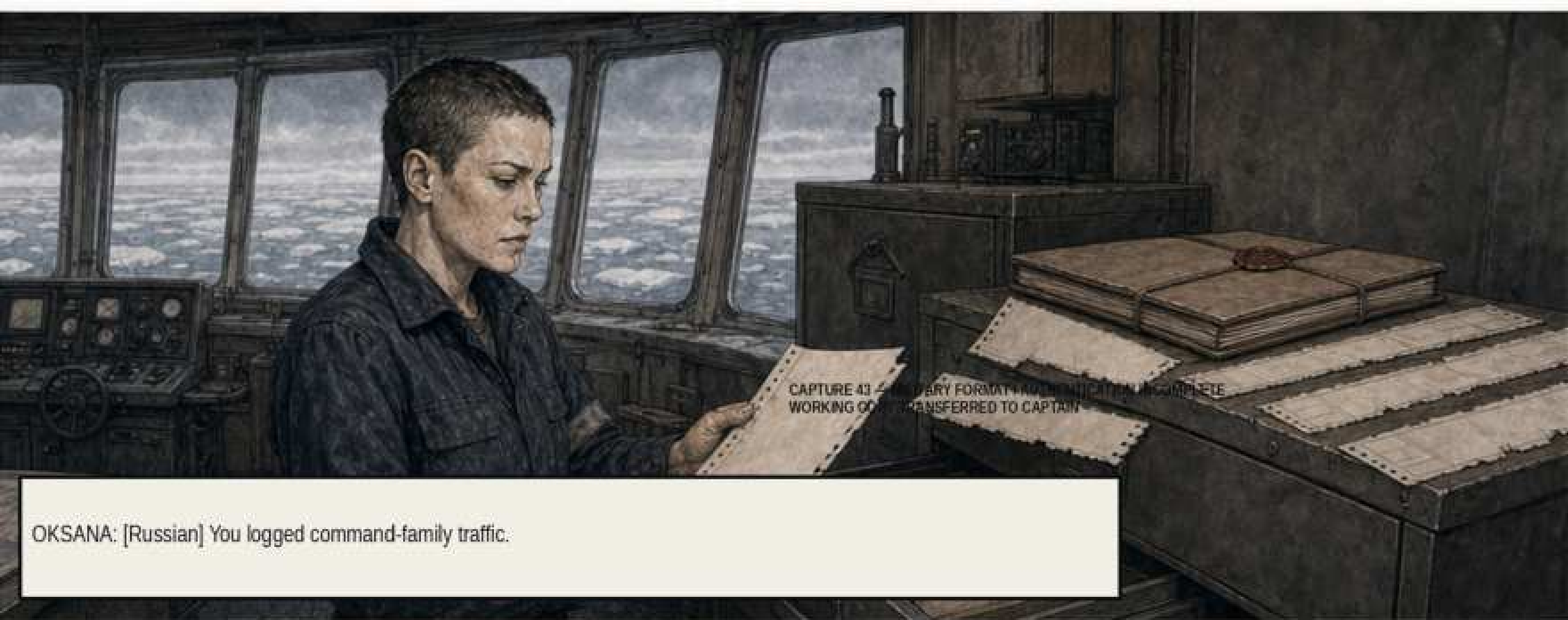
WRONA: No name goes into the log from half a call sign.
ANTON: Agreed.



MARA: New evidence?
WRONA: Unverified command traffic.
MARA: Then its uncertainty belongs with the other uncertainties.



WRONA: A broken order can move a ship before anyone proves it false.
MARA: A hidden order can move the captain before anyone knows it exists.



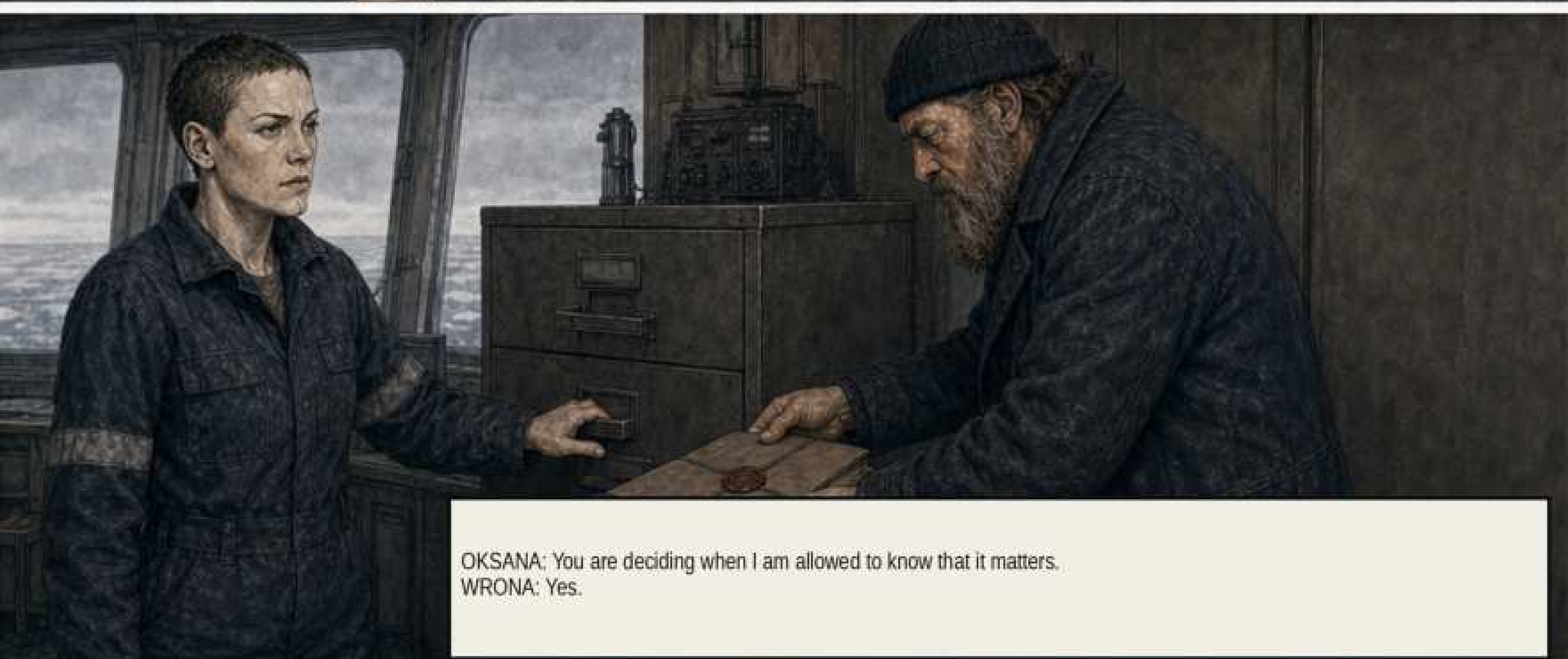
OKSANA: [Russian] You logged command-family traffic.



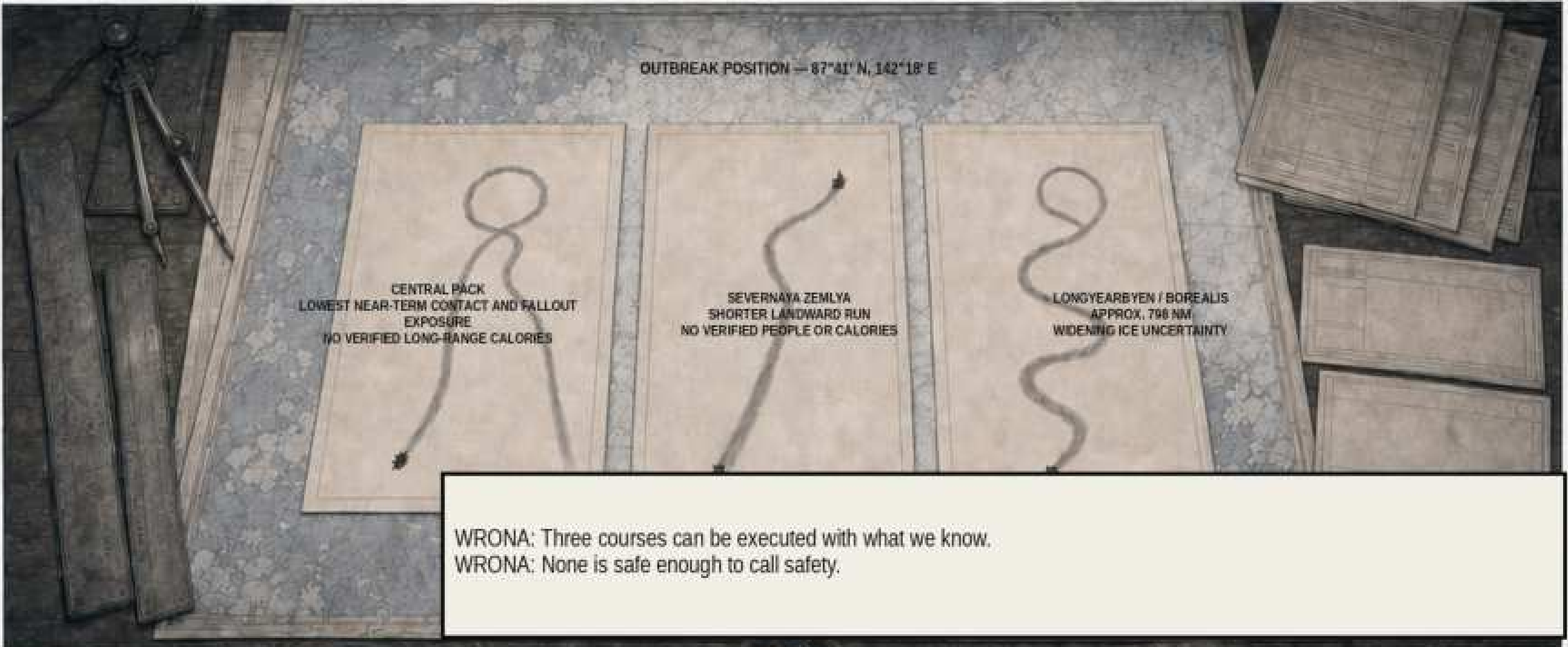
WRONA: Yes.
OKSANA: Direction affecting the ship?
WRONA: Possibly. Nothing executable yet.



OKSANA: I am chief officer. If command traffic changes our safe routes, I carry that risk on watch.
WRONA: When it becomes an order we can test, you will have it.



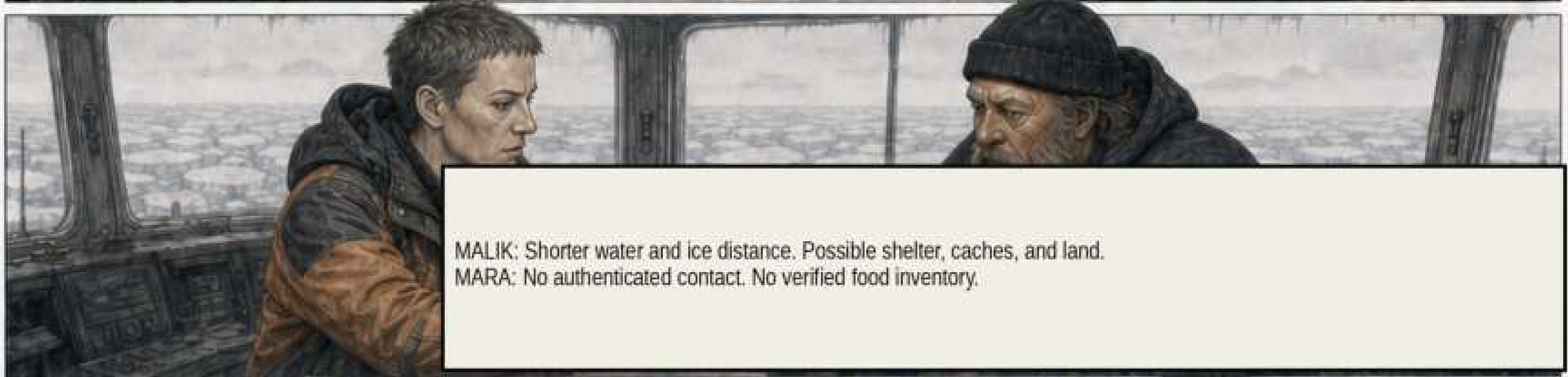
OKSANA: You are deciding when I am allowed to know that it matters.
WRONA: Yes.



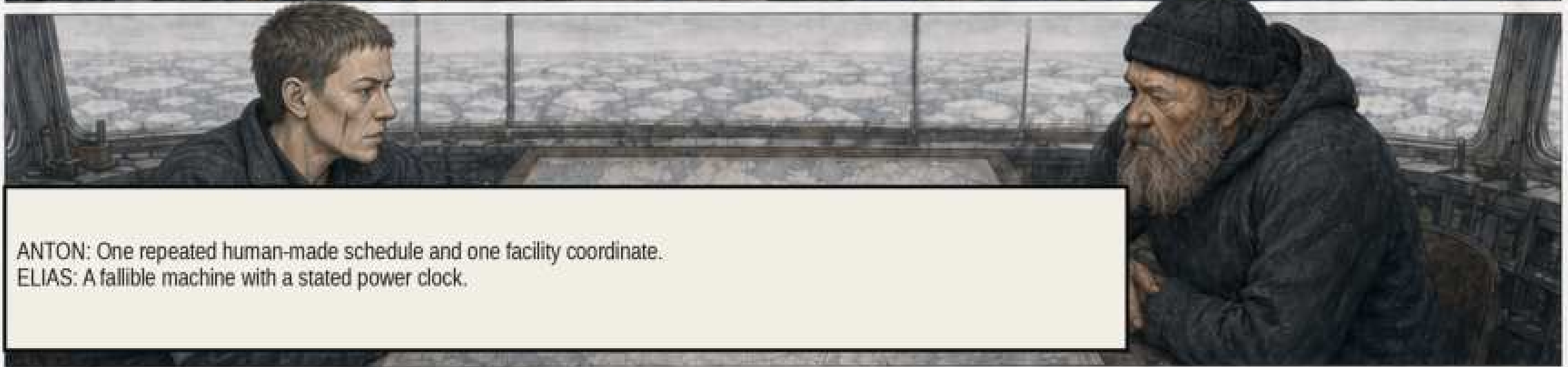
WRONA: Three courses can be executed with what we know.
WRONA: None is safe enough to call safety.



OKSANA: We keep distance, clean air as long as weather permits, and a ship we understand.
ELIAS: We also keep the same finite stores.



MALIK: Shorter water and ice distance. Possible shelter, caches, and land.
MARA: No authenticated contact. No verified food inventory.



ANTON: One repeated human-made schedule and one facility coordinate.
ELIAS: A fallible machine with a stated power clock.



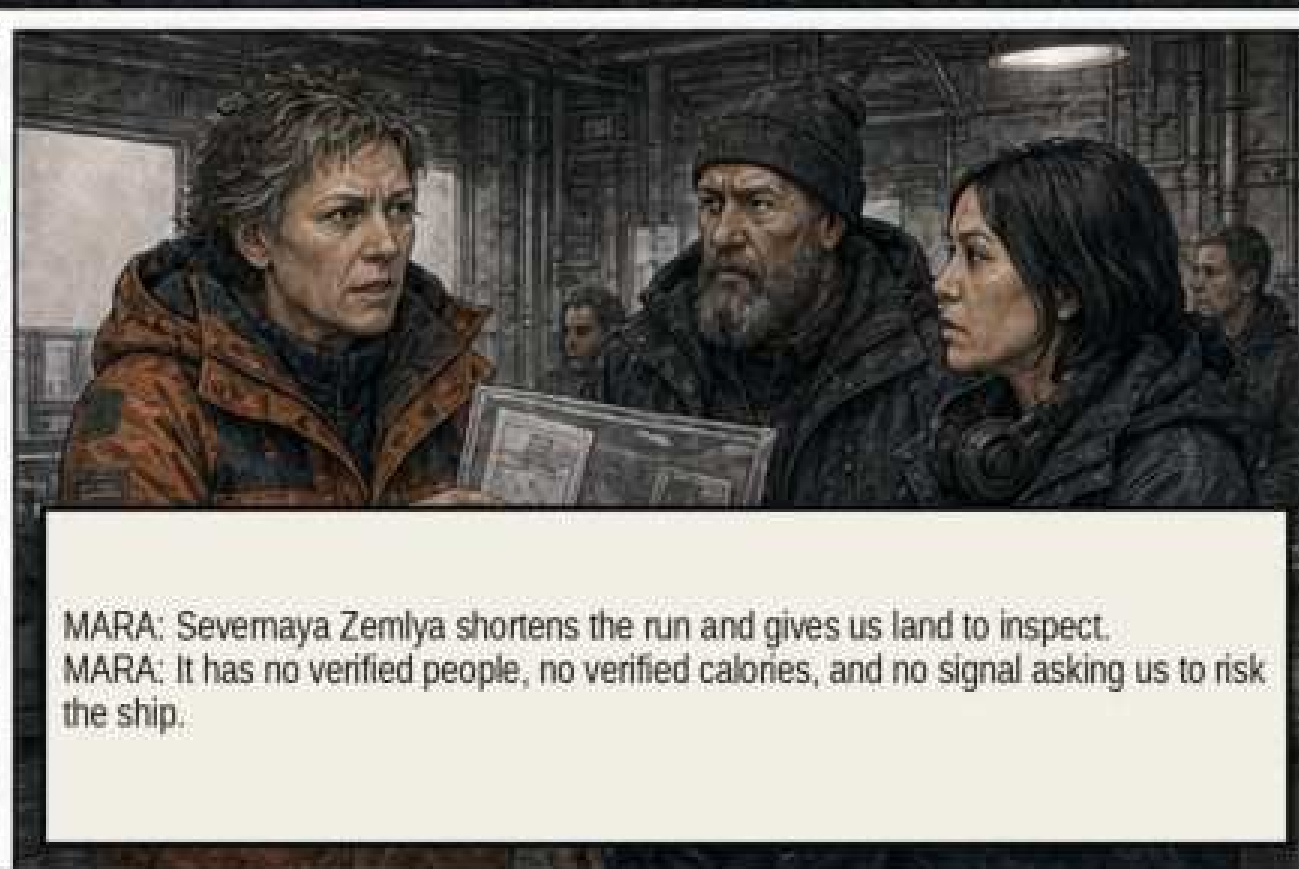
MALIK: Stay, land, or people.
MALIK: All three charge for being wrong.
WRONA: Then all three go before the ship.



WRONA: This is not a vote that makes the sea obey.
WRONA: It is the record I will answer to when I order a heading.



OKSANA: The central pack preserves the vessel, limits contact, and delays exposure.
OKSANA: Its failure is slow enough to look disciplined: stores fall, and no food arrives.



MARA: Severnaya Zemlya shortens the run and gives us land to inspect.
MARA: It has no verified people, no verified calories, and no signal asking us to risk the ship.



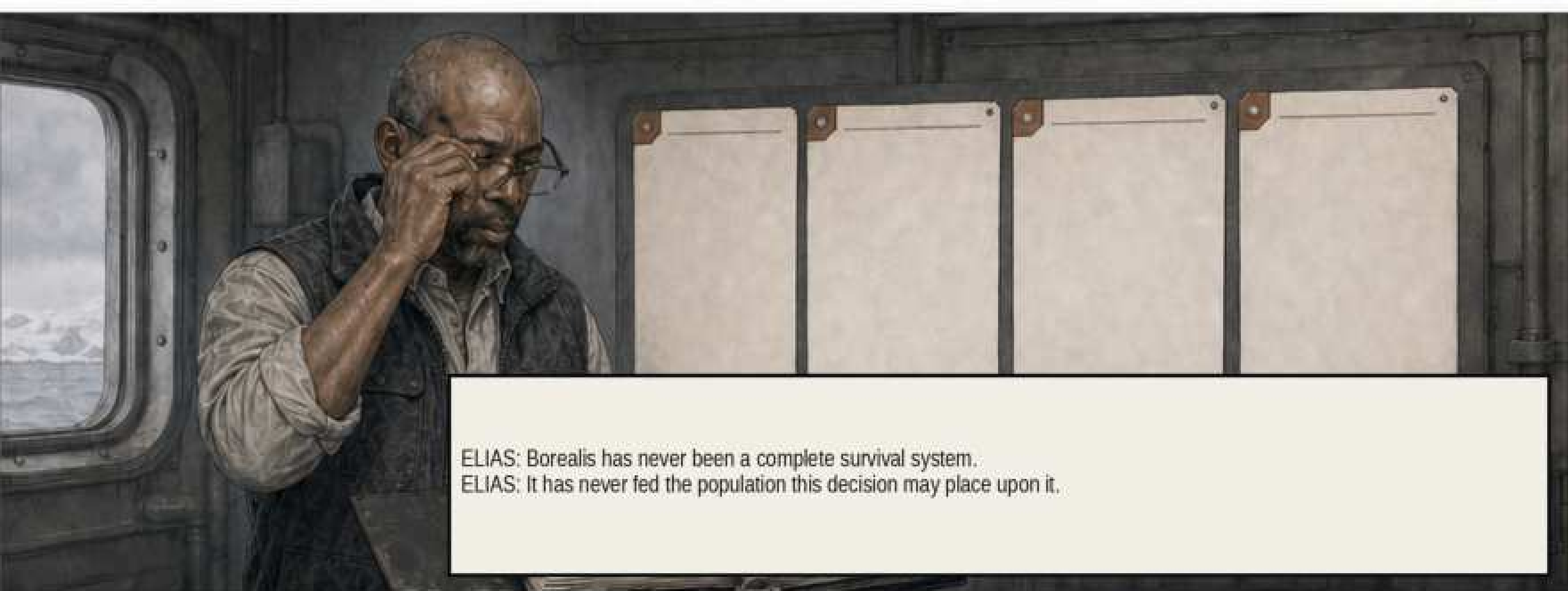
GRANT: Longyearbyen is the longest commitment to the least authenticated claim.
GRANT: The wording may be designed to move us.
CELIA: It may still be true enough that people die if it fails to move us.



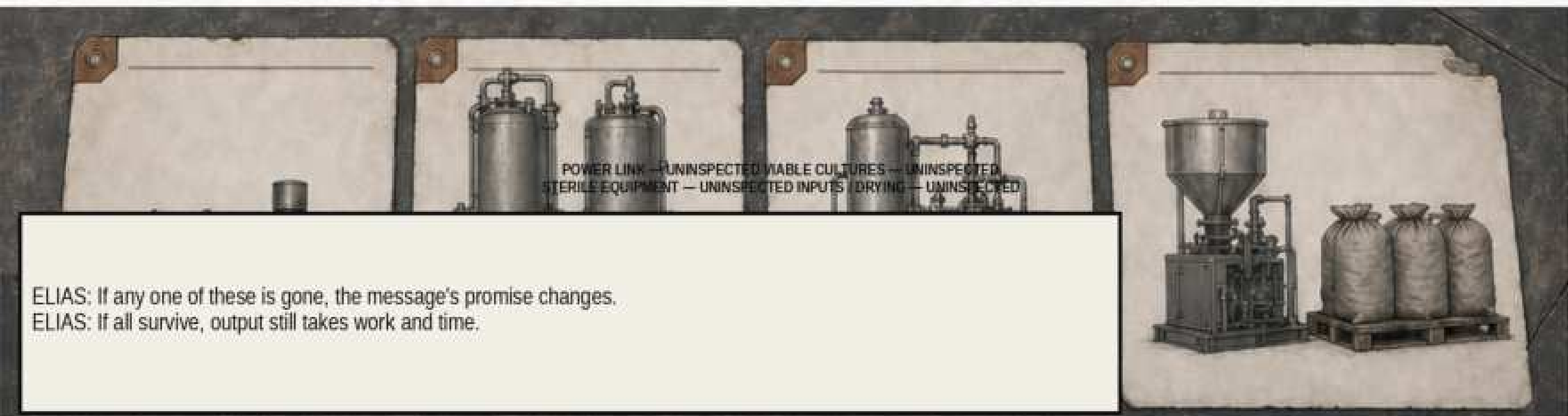
ERIK: Kestrel's signal did not prove our condition.
LIV: It gave you a place to look.
AINO (PA): Looking cost six days. Not looking would have cost nine people.



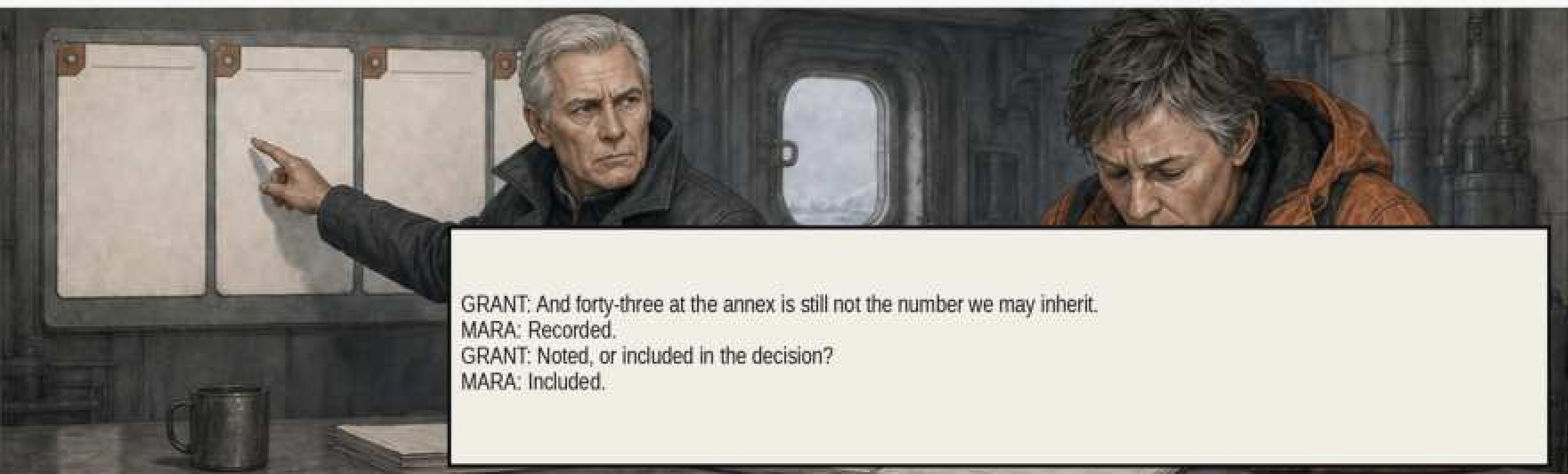
WRONA: Arguments entered.
WRONA: No one has transferred the consequence to a show of hands.



ELIAS: Borealis has never been a complete survival system.
ELIAS: It has never fed the population this decision may place upon it.



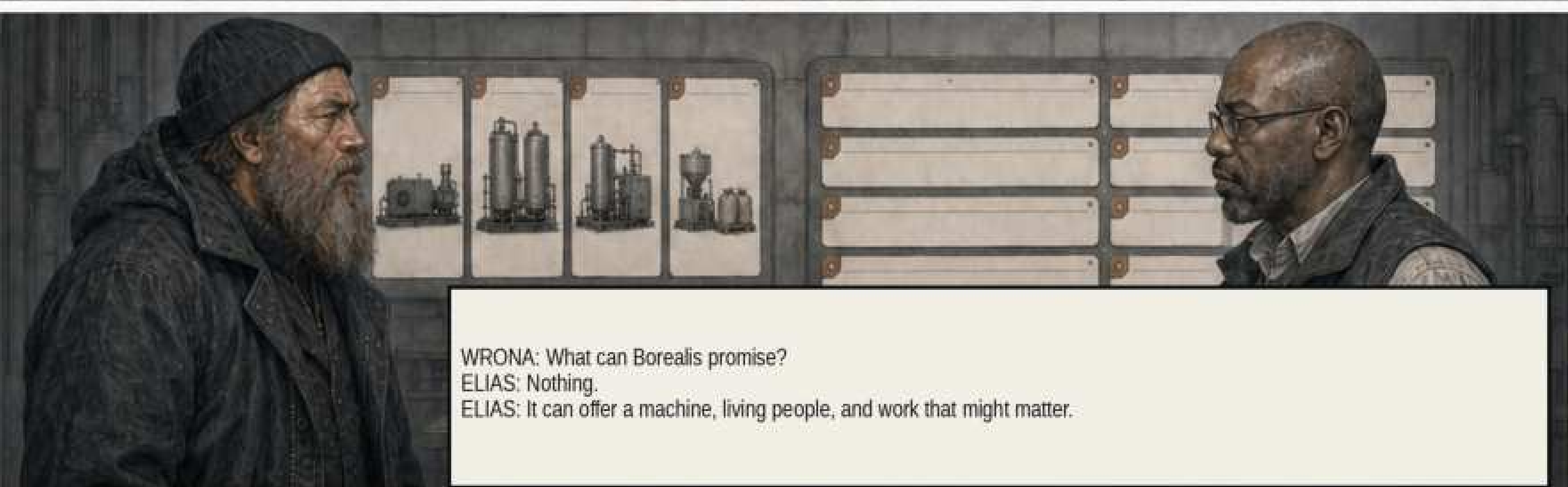
ELIAS: If any one of these is gone, the message's promise changes.
ELIAS: If all survive, output still takes work and time.



GRANT: And forty-three at the annex is still not the number we may inherit.
MARA: Recorded.
GRANT: Noted, or included in the decision?
MARA: Included.



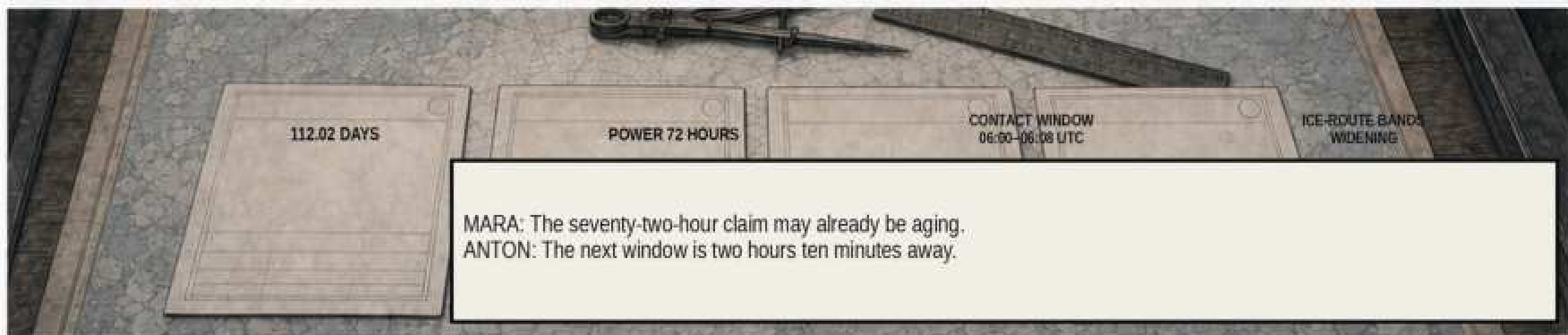
MARA: Public facts do not make this safe.
MARA: They make the risk correctable and the cost visible.



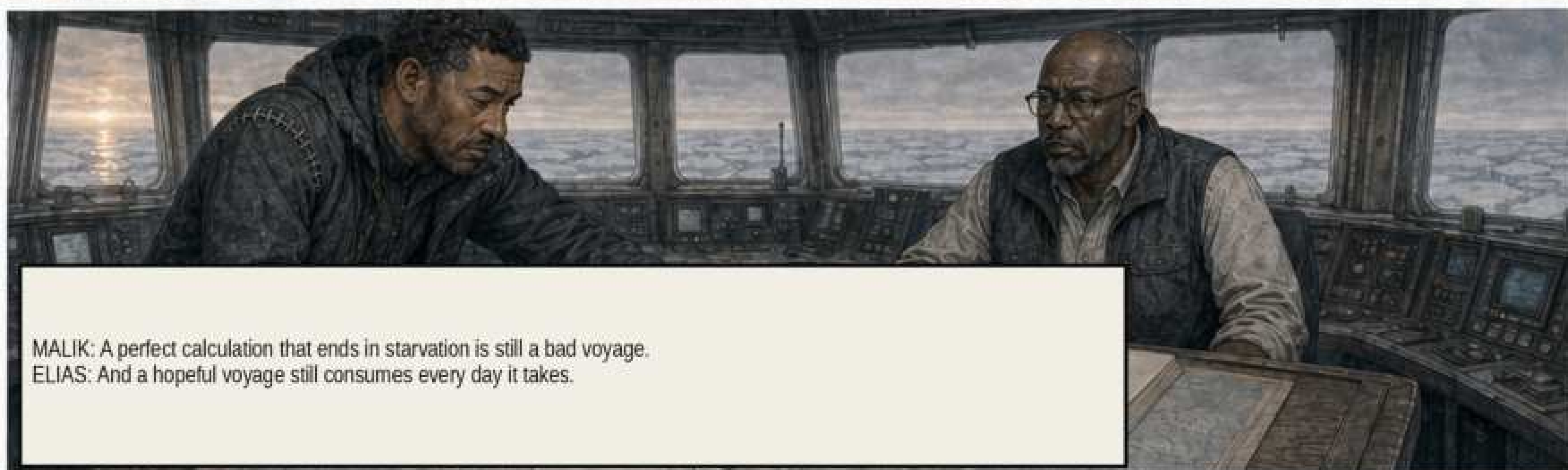
WRONA: What can Borealis promise?
ELIAS: Nothing.
ELIAS: It can offer a machine, living people, and work that might matter.



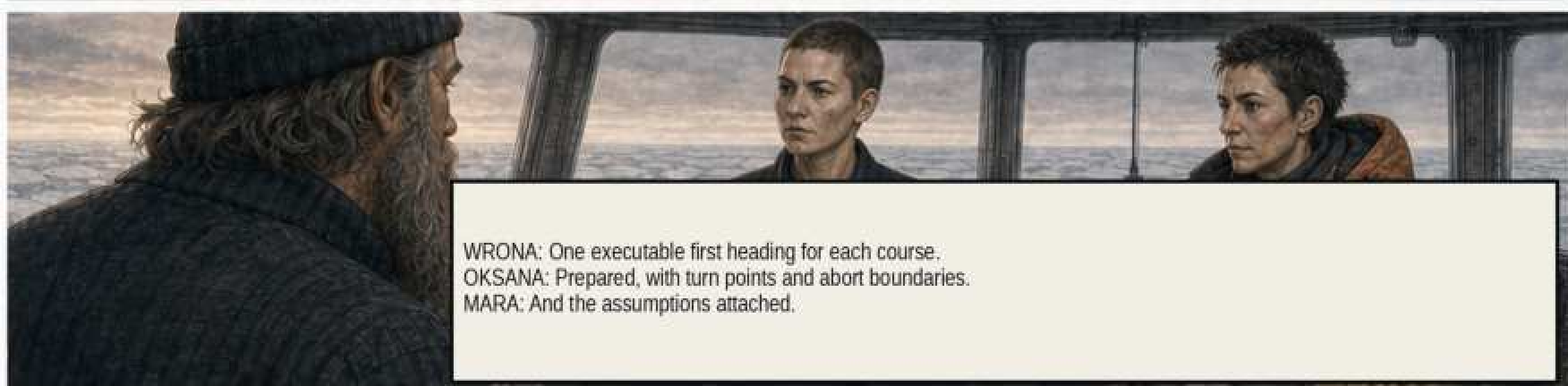
MALIK: The leads lost another third of their width overnight.
MALIK: Freeze-up is not waiting for our philosophy.



MARA: The seventy-two-hour claim may already be aging.
ANTON: The next window is two hours ten minutes away.

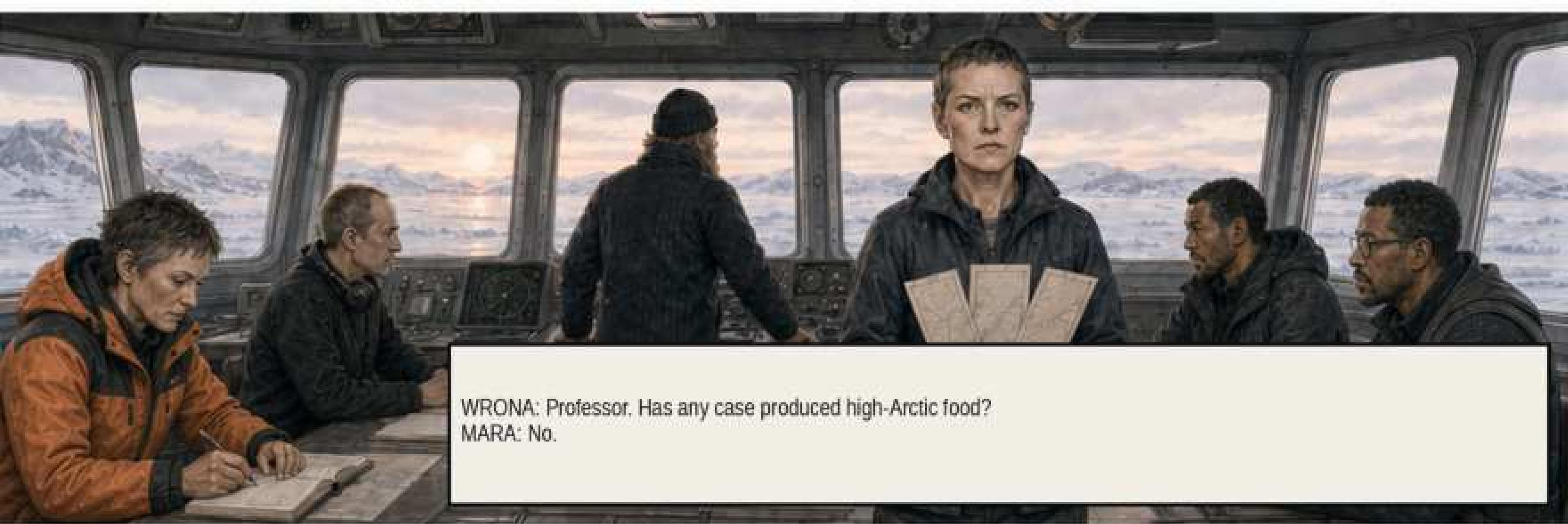


MALIK: A perfect calculation that ends in starvation is still a bad voyage.
ELIAS: And a hopeful voyage still consumes every day it takes.

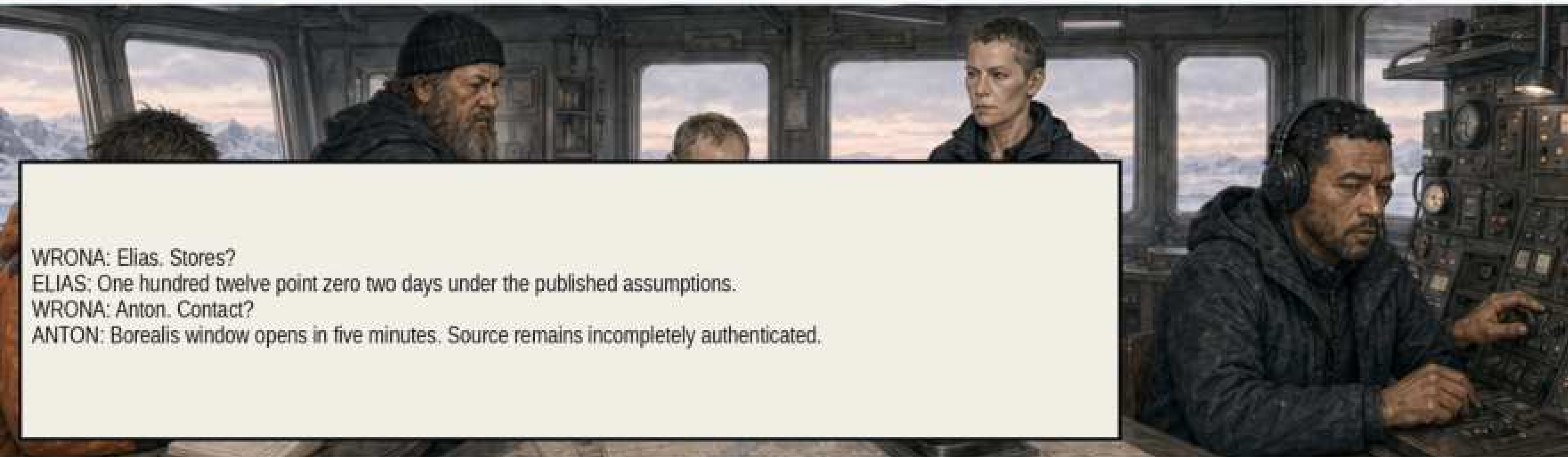


WRONA: One executable first heading for each course.
OKSANA: Prepared, with turn points and abort boundaries.
MARA: And the assumptions attached.

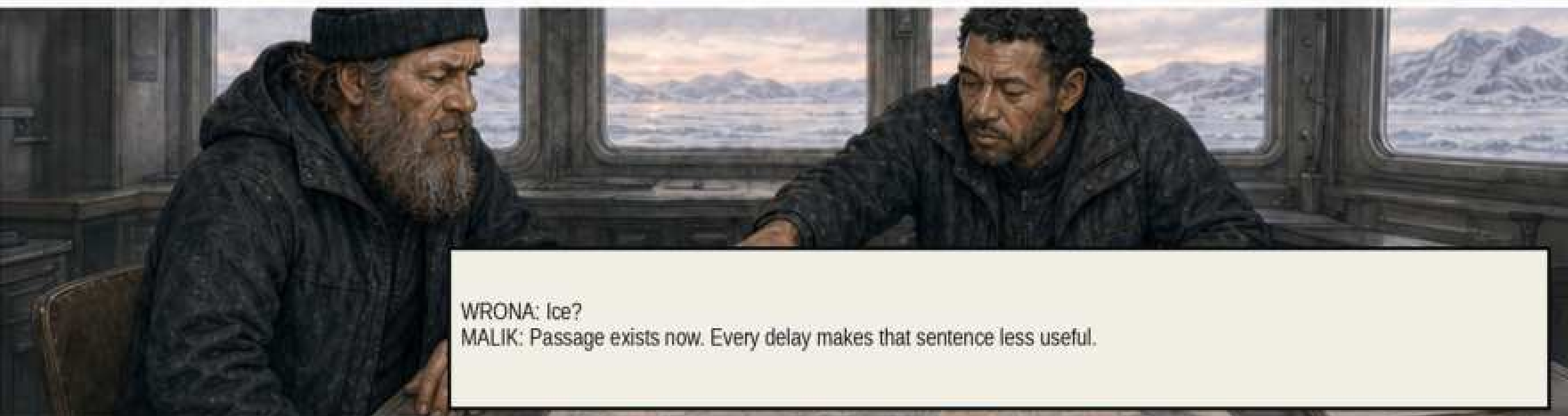




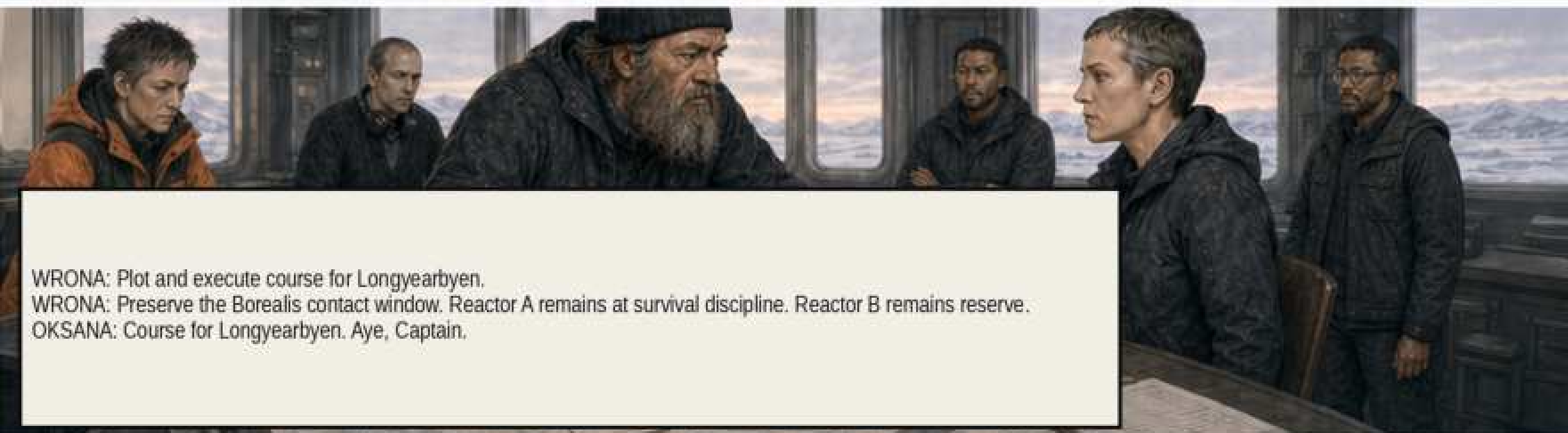
WRONA: Professor. Has any case produced high-Arctic food?
MARA: No.



WRONA: Elias. Stores?
ELIAS: One hundred twelve point zero two days under the published assumptions.
WRONA: Anton. Contact?
ANTON: Borealis window opens in five minutes. Source remains incompletely authenticated.



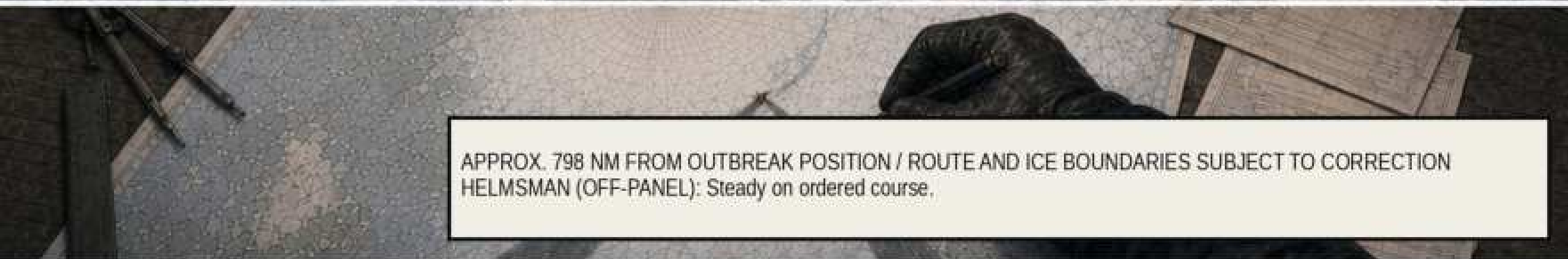
WRONA: Ice?
MALIK: Passage exists now. Every delay makes that sentence less useful.



WRONA: Plot and execute course for Longyearbyen.
WRONA: Preserve the Borealis contact window. Reactor A remains at survival discipline. Reactor B remains reserve.
OKSANA: Course for Longyearbyen. Aye, Captain.



HELMSMAN: Coming to ordered course.
ANTON: Borealis window open.
SFX, SHIP STRUCTURE: nnnng—KRRRRM



APPROX. 798 NM FROM OUTBREAK POSITION / ROUTE AND ICE BOUNDARIES SUBJECT TO CORRECTION
HELMSMAN (OFF-PANEL): Steady on ordered course.



OKSANA: [Russian] Did Moscow order the opposite?

