

# INCH BY INCH

A novel by Lee Jones

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## PROLOGUE

Every man has a right to his own opinion, but no man has a right to be wrong in his facts.  
–Bernard Baruch

Facts are indisputable.  
The challenge is in knowing what's fact and what's not.

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## CHAPTER 1. A BAD DAY

Melville Bay  
24 September 1989

On a good day Greenland is a vast and lonely place. On a bad day it can disappear. Today was one of the bad days.

The R/V Polar Explorer was enshrouded in fog. Two apparitions—men: one gangly, one squat—emerged from the brume and were joined by a third, more rotund apparition. Mutt and Jeff wore matching red parkas; Piggy wore blue. Piggy was a pilot; Mutt and Jeff were his fare.

Six-foot-four Matthew Rutledge and five-foot-seven Jannik Jeffers, code-named Mutt and Jeff, were crack climatologists employed by Arctic Oil Alliance, the world's third largest oil company. Their mission, simply put, was to see the future. For this they were paid handsomely. Piggy, aka Stieg Johansson, was a structural engineer and one of Polar Explorer's two licensed helicopter pilots. *His* mission was not so noble.

AOA was the industry leader in global warming research, and Mutt and Jeff, were its secret weapon. Secret because the science of global warming was all about besting your competition—that is, if you are the world's third largest oil firm hell-bent on being number one. If indeed the world was warming at a rate unprecedented since the age of the dinosaurs, and if the Arctic was warming at a faster clip than the rest of the planet, Greenland would soon be ice-free and the impenetrable Northwest Passage would soon become a major shipping lane. *If*. Mutt and Jeff were being paid big bucks to find out. If true, massive but presently inaccessible oil reserves in the Arctic would soon be up for grabs. AOA was preparing to retool for an ice-free Arctic, locate and lay claim to vast untapped oil reserves, and move in for the kill—ahead of the pack. The fact that fossil fuel consumption may be the leading cause of global warming was irrelevant. The future was now. What may lie ahead two or three centuries down the road.... Well, that was tomorrow's problem.

Operation Cicero, AOA's oil exploration venture off the northwest coast of Greenland, now in its fourth year, was the first step in AOA's march to the top. The firm was already sitting on a wealth of information thanks to the brilliant work of its two climatologists.

"Grab your gear, gentlemen. We're clear to go." It was Piggy.

"In this fog?"

"Fog should be lifting any minute along the coast. When we arrive it'll be nothing but blue."

The three men vanished into the fog and climbed aboard the company's pug-nosed Bell 212 Twin Huey.

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A crisp cobalt sky punctuated by an unforgiving sun jolted their senses as the three men burst through the vast sea of white. Even though they were wearing their protective Ray-Bans,

standard equipment when working in the Arctic, they were temporarily blinded by the intense sunlight reflecting off the fogbank. Stieg Johansson pointed the chopper due north, lowered its nose, and set off to explore a recently reported rift at the base of Melville Bay's largest ice shelf 15 miles away, a rift that had been reported days earlier by one of their reconnaissance planes.

Today was the last day of a long summer season, and like everyone else aboard the Polar Explorer, Rutledge and Jeffers were looking forward to reuniting with their families. It had been a rugged tour of duty. One of their main tasks over the last three months had been drilling holes in the ice to extract ice cores, each core containing millions of trapped air bubbles, tiny layered pockets of air that held the key to past atmospheric conditions.

Compared to operating heavy drilling equipment in subzero conditions, often in the face of howling winds, today was a vacation. Today, Rutledge and Jeffers carried only their camera and rangefinder, a sack lunch, and AOA's standard-issue Arctic survival kit. Rutledge also carried his diary.

As predicted, by the time they arrived the fog had cleared along the coast where warmer air and a mild offshore breeze prevailed. Conditions were excellent for photographing the icy fissure from the air.

As they approached their target, Rutledge peered out at the endless array of snow-covered hills in the distance. "Greenland," he mused. "What a misnomer. Greenland won't be green for another hundred years."

With pursed lips and a subtle shake of his head Jeffers replied, "Yeah, but by then..."

"Over there, Gentlemen." Johansson pointed to their left, toward the horizon.

"Well, I'll be a son of a bitch," Rutledge remarked.

"Holy shit!" Jeffers exclaimed almost simultaneously. "It's got to be at least ten miles long."

"More like fifteen," Johansson corrected.

They were looking at a fault line in the ice just off the coast that extended from directly below them as far as the eye could see. The massive ice shelf had been anchored to the mainland for thousands of years, and now the bulk of it was about to break free.

"When was it discovered?" Rutledge asked.

"Rumored to have started six months ago. Confirmed by our reconnaissance team last week. It extends all the way to the edge of the ice shelf fifteen miles to the west. When it reaches the eastern edge..." Johansson pointed to the still unfractured ice to the east. "...the shelf will calve."

"And how far is that?"

"Another eight miles. At the rate it's breaking apart, it's only a matter of days."

Jeffers made a quick calculation in his head. “That’s what? Two hundred, two hundred fifty square miles of *summer* ice. Floating free, just like that.”

“That’s only the beginning,” Rutledge added.

They flew the entire length of the fault and landed briefly at the west end. As they were about to depart, Johansson suggested they take a look at another, earlier-stage rift on a much smaller ice shelf about 40 miles to the east. Rutledge and Jeffers were not aware of a second rift and thought it odd that Piggy would wait until now to mention it, almost as an afterthought. But they readily agreed to take a look. It beat sitting around all day playing bridge aboard ship, a pastime that was consuming more and more of their time now that the season was winding down. What Rutledge and Jeffers were also not aware of was that Stieg had not radioed their intended side trip to the ship.

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A half-hour later they were walking along the new icefield where Johansson had insisted the alleged rift was located when Jeffers noticed the helicopter pilot was no longer with them. “Looks like Piggy’s gone to market.”

Rutledge turned around. Sure enough Johansson was nowhere to be seen. ““Wasn’t he right behind us a minute ago?”

“Evidently not. Stieg’s a strange dude. Maybe he dropped behind to build a snowman.”

“Well, I guess that explains the leftover carrot in his lunch pail.”

They both laughed. But their levity was cut short by the sound of the helicopter powering up a couple hundred meters behind them.

“What the fuck?”

Rutledge radioed the chopper. No response. He radioed the mothership. Again, no response. Jeffers tried his radio. Nothing.

“Rift, my ass. Jeff, something tells me this little side trip to butt-fuck nowhere was not on today’s agenda.”

On a good day Greenland is a vast and lonely place. On a bad day one can disappear.

## CHAPTER 2. DAY OF DISCOVERY

Jakobsholm, Greenland  
4 June 2068

“Mormor! Mormor! Come quick!”

Resting in her study when she heard her granddaughter hailing her, Lily Ulrich rose unsteadily from her easy chair and hastened to the back door, limping slightly as she walked. The two nearly collided as Anastasia, 15 years old and nine months pregnant, swung open the door and waddled in.

“Mormor, come see!”

“What is it?”

“Come. I’ll show you.” She took Mormor’s hand and led her to the far hedge that separated their lot from the neighbor’s. With Mormor close at her side, Anastasia knelt down and parted some low branches of the shrubbery. There, well-hidden on the ground inside the hedge was a small nest of mosses and lichens. It contained four heavily speckled, deep green eggs.

“What is it, Mormor? I’ve never seen a nest like this.”

“I believe the answer to your question is singing in the tall shrub on the other side of the hedge.”

Anastasia looked up and saw a small sparrow. “It looks like a snow bunting but it doesn’t sound like one. And it doesn’t have any white in its wings.”

But Lily had immediately recognized the bird’s thin, melodic see-saw song. She had heard it many years before when she was a counselor at a summer camp for troubled girls in Alaska. “It’s a tree sparrow, Ana-pigen.”

“Yes, Mormor! I remember now. It’s on my bird app. But what’s it doing here in Greenland?”

Lily was about to answer when she was hailed once again, this time from inside the house. It was Anton, Anastasia’s 17-year-old brother. “Mormor! Mormor! You won’t believe what Husky just found!”

“My goodness!” Lily exclaimed. “This must be the day of discovery in the Ulrich household.”

She and Anastasia hurried into the house and into Anton's bedroom. Across the breadth of his far wall was a three-dimensional image of Husky, Anton's Robotic Personal Assistant, holding something that looked like an old book.

"What is it, Anton?" Anastasia asked.

"I don't know exactly. It's got handwriting in it, so it must be really old. But check this out." The screen panned to what looked like a mummy, partially exposed by the late spring melt. Lily and Ana stared in horror at the grisly corpse. The corpse stared back.

"Ewww!" Anastasia turned away in disgust.

"Sissy," Anton laughed. "It's only a dead body."

"Only! It's disgusting. Who is it, anyway?"

"How should I know?"

"Where is he?" Lily asked, having regained her composure.

"Eight hundred sixty-six kilometers northwest of here. Bearing, 342 degrees. North side of Melville Bay."

"That's a long way from here. What's Husky doing way up there?" Lily asked.

"Just fartin' around. Looking for buried treasure."

"Give it up Anton," his sister taunted. "Do you really think you're going to find a pot of gold up there?"

"You never know."

"Why don't you program Husky to find something useful—like arable land?"

"That's enough, you two. I want to know more about the book. Husky, have you read it?"

"Only the first few pages. Looks like a personal diary. But Anton cut me off so he could go fetch you."

"Read it to me," Lily instructed. "Start from the beginning."

Husky did as he was told and began reading. He held it up so Lily could read along. It was in cursive, a script only Lily knew how to read. Her grandchildren were fluent in

English, since it was taught in all the schools, but to them cursive was an indecipherable handwritten style that had fallen into disuse nearly half a century before.

Lily asked Husky to read at a pace she was comfortable with, so she could stop him whenever she wanted to go back or take a moment to absorb what he was reading.

After five minutes of this, the kids got bored and left the room to play outside. But Lily was entranced. She was so wrapped up in the diary she hardly noticed their leaving.

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“Mormor, you gonna make lunch?” It was Anton. Lily had been absorbed in this diary for nearly two hours and had forgotten all about lunch.

“Ana, can you two make lunch? I’ll be in here a little longer.”

When Lily finally emerged, she was white as a ghost. Anastasia saw that her hands were trembling. “Are...are you OK, Bedste?”

Lily didn’t speak. Anton came over and helped her to the couch. “What’s wrong?”

Finally she spoke, softly but emphatically. “*Why?*”

“Huh?”

“How could they!” she screamed, jolting the two children.

Anton and Anastasia looked at each other blankly. What was in that diary that had so traumatized their granny?

“If only the world had known about this diary 75 years ago. It would have changed *everything!* The world would not be in the mess it’s in today. All the suffering. The genocide. The immeasurable loss. So unnecessary!” She began to weep. “Why had it taken so long? Dear God. *Why?*”

### CHAPTER 3. SIR RODNEY TAKES A FALL

“Mormor, tell us what’s in the diary.”

Lily had regained her composure as well as she could under the circumstances. She had eaten lunch and sipped a couple of piping-hot mugs of mead, a Danish drink made from fermented honey, hibiscus flowers, hops, and spices. “I will read you the diary. But first, you need some background.”

“Tell us! Tell us!” They could barely contain their enthusiasm.

“The story begins many years ago, in 2005. A remarkable young woman named Phoenix Finnegan—people knew her as Fee—and her spouse Rodney Rutherford had just graduated from college and were visiting Dr. Nina Nordman, a seabird biologist and professor at Louisiana State University in Baton Rouge. Fee had met Dr. Nordman when she was a child and had immediately taken to her. You might say Nina was a role model, one of Fee’s heroes.

“Nina had invited the young couple to come with her and two of her graduate students, Billy Joe Crawford and Jane Simmons, on an expedition to the Breton National Wildlife Refuge, a low-lying chain of islands near the mouth of the Mississippi River. The seabirds nesting on the islands had....”

“What’s a national wildlife refuge?” Anton interrupted.

“Duh,” Ana quipped. “It’s a place where wildlife can go for protection. Right, Bedste?”

“Close enough. Wildlife refuges were federal land that was set aside to protect important populations of birds and other animals and the habitats where they lived.”

Lily continued with her story. “The purpose of their trip, which took place in late August near the end of the nesting season, was to assess the impact of Tropical Storm Arlene on the nesting seabirds, including the brown pelican, an endangered species at the time. Arlene had struck....”

“What’s an endangered species?”

“Anton, please. Hold your questions for now. A lot has changed in the last 60 years. We can discuss these unfamiliar terms when I’ve finished.

“Arlene struck in June, early in the nesting season when most birds still had eggs and recently hatched chicks. A tidal surge kicked up by the storm had washed over the island, destroying many of the eggs and drowning defenseless chicks. Dr. Nordman wanted to inspect the colony to determine the extent of damage, especially to the pelicans, which people feared had suffered complete reproductive failure for the season.

“Early on their third morning, while they were banding birds on Curlew Island, a sport-fishing boat pulled up to shore. The captain informed them that a hurricane was brewing out in the Gulf just west of the Florida Keys. Its projected path was to the north toward the Florida panhandle,

so they were in no immediate danger, but to be on the safe side they should consider heading back to the mainland soon.

“Nina had an important decision to make. Should they remain on the island until the following morning and finish up their work, or should they leave immediately. As the person responsible for the team’s safety, she opted for the latter. But the others disagreed. The hurricane was far away and not headed in their direction. And even if it turned their way, it would take two to three days to reach them. They compromised and decided to leave that afternoon, giving them enough time to wrap up most of their work but soon enough to get back to the boat landing on the mainland by nightfall. The date was 26 August.

“They left the island at 4:30, plenty of time to reach the landing downriver from New Orleans before dark. However, well before they reached the delta they ran into problems....” Lily paused to wipe her eyes....

“Shit!” Nina exclaimed, now thoroughly exasperated. It was the fourth time the engine had cut out since they had left Curlew Island, and they had only gone a few miles. And each time it stalled it was harder to start. A veteran small-boat operator, Nina figured it was either a clogged fuel line or a problem with the carburetor. She hoped it was the former but feared it was the latter.

They had just passed by the Breton Islands, the southernmost group in the Chandeleur chain, and were heading into the open channel that separated the islands from the mainland. She decided not to attempt the channel crossing, but to return to North Breton a couple of miles behind them where a commercial fishery had a small fish-processing facility. At least the people there might have the tools necessary to repair the carburetor if it came to that.

Fifteen minutes later they pulled up to the dock, engine sputtering, and were met by a wizened old man and a rather ferocious-looking Rottweiler.

“Sounds like you got a faulty cahburetuh,” he said, even before they had docked.

“We’re heading back to the mainland. Heard there was a hurricane brewing and didn’t want to take any chances. Started having engine problems just after we passed the island.” Nina extended her hand as the man helped them secure the boat. “I’m Dr. Nina Nordman, a professor at LSU.”

“I seen you here before. Never knew your name, though.” He took her hand to help her ashore. “Name’s Tex.”

“And your dog?” Nina asked nervously.

“Oh, Rex. He’s just an overgrown puppy. Wouldn’t hurt a flea.” A sly grin creased his battle-scarred face as he stared into her eyes. “That is...unless you’re thinkin’ about prowling around the place at night.”

Nina shuttered momentarily but continued. "If it's the carburetor, we were hoping you might have the tools we need to fix it."

"Come. I'll see what we have."

"Y'all go with Tex," Nina instructed. "I'll stay here on the boat and see if I can find the problem."

As they walked toward the compound, Fee asked the old man, "What's the latest on the hurricane?"

"Could get nasty. But it shouldn't be here for another couple a' days."

"We heard it wasn't heading this way."

"That was yestuhday. They've changed their forecast. Accawdin' to the latest weather report, it's headin' straight for N'Orluns."

"Which means we're directly in its path."

"Seems that way."

"Just you out here?" Billy Joe asked.

"Yup. Just me and Rex. They comin' out tomorrow to board up the place, pick up some equipment, and get me an' my buddy here off the island."

"Sure have been a lot of hurricanes this season," Billy Joe said. "I wonder if it's because of global warming. At least, that's what people are saying."

"A bunch of nonsense if you ask me. Some years are bad; other years we don't get no hurricanes. This one's just badder than most."

Nina checked the fuel line and the carburetor filter. Both were clear. She inspected the carburetor more closely and her worst fears were confirmed. It had a hairline crack. When the others returned with the needed tools, she informed them that they would not do any good. They needed a new carburetor.

"I'll radio the office in N'Orluns and tell 'em to bring out a new cahburetuh. You got the part number?"

Nina was elated. "That would be great if they could do that. The university will cover all the expenses, including for their time."

"I'm sure it'll be no problem, what with the hurricane comin' and all. I'll tell 'em it's an emergency."

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Fee could see that Rodney was visibly shaken by the turn in events. “You OK, Sweetheart?”

“Yeah, I’m all right,” he answered rather unconvincingly.

Fee felt bad for Rodney. He had insisted on coming along even though he was not all that into field biology and had clearly struggled the last few days in the blistering heat and oppressive humidity.

“I’ve got to admit, you’re a real sport, Sir.” Fee squeezed his hand. The lab Rodney worked in when Fee had met him back in high school had nicknamed him Sir Rodney because of his confident manner and dapper attire. The “Sir” appellation had stuck.

“You know I’d rather be with you than sitting in the lab staring into a microscope all day. And your enthusiasm when you’re in your element is positively contagious.”

Fee tightened her grip on his hand and gave him a peck on the cheek. “I guess that’s why I love you so much.”

To one who did not know them well, Fee and Rodney would appear to be complete opposites. Not only were their physical features manifestly different—she was one-fourth Hispanic, three-fourths Caucasian; he was, by his reckoning, 85 percent Negro, 15 percent whatever—they had come from vastly different cultures, she from a middle-class suburb in west Houston, he from the edge of a ghetto in Houston’s inner city. She had cultivated a passion for wildlife and wild places since early childhood; he had had little exposure to, or interest in, either. She had had a troubled childhood—in and out of foster homes, seriously abused at a young age, a lifetime of therapy; he a relatively normal childhood with loving and supportive parents. She had ended up in a loving, supportive family as well, but by then the psychological damage had taken its toll. Yet their love for each other was intense and unwavering.

People say opposites attract. Whether or not that is a general truth, for Fee and Rodney it certainly had been. But they did share some similarities. Both had experienced death of a loved one as young teens: she a brilliant forty-year-old gay mentor; he a high-school sweetheart who had been an innocent victim of gang violence. Both had a strong interest in microbiology, but her path to microbiology had been via a perplexing, unsolved riddle about the decades-long decline of a rare songbird, the loggerhead shrike. His path had been more humanitarian, via a desire to bring increased awareness of infectious and contagious diseases to the disadvantaged.

The young couple had a 6-month-old son, Hayden, whom they had left with Nina’s sister Jackie and brother-in-law Robert so they could join Nina’s expedition. Jackie and Robert’s 11-year-old daughter had been thrilled at the prospect of looking after little Hayden who, unbeknownst to the outside world, had been an “oops!” baby. Although the pregnancy hadn’t been planned, under the circumstances it was understandable. Fee had been separated from her birth control pills for nearly three weeks while she and Rodney, hopelessly lost, were being stalked by a madman through the jungles of remote southern Belize. They had been on vacation but things had gone terribly wrong shortly after their arrival, and, well, Hayden was a byproduct of their little mishap. Although they had planned on having kids after college, Hayden had been a few years ahead of schedule, but no less loved. Fee and Rodney absolutely adored him and were looking forward to seeing him again tomorrow.

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The five biologists had no choice but to stay on the island overnight. Since the island crew had left yesterday, and the biweekly replacement crew would remain on the mainland until after the hurricane, the place was empty except for Tex and Rex, the company's two security guards. The accommodations were basic but ample, a dormitory-style bedroom, fully stocked kitchen with food and plenty of beer in the fridge, a large common area with tables and a desk, and a volleyball court on the grassy flat next to the house. Tex and Rex evidently had other quarters, since Nina and the gang did not see either again once Tex had introduced them to their quarters and shown them how to access the weather channel on the radio.

They played a couple of games of volleyball to allay the stress of a trying day, threw together dinner from their remaining provisions and a few items in the kitchen, then hit the sack early, knowing they would be on their way early in the morning.

Saturday, 27 August

Fee awoke early and found Nina already up, sitting at the kitchen table. She looked worried. Her face was drawn, her hair disheveled. But, then, her frizzy mat of dirty blond hair always looked disheveled. "You OK, Nina?" Fee asked. "You look concerned."

"Oh, it's nothing. It's just.... I don't know. I couldn't sleep last night, so I got up and got the latest update on the radio."

"And?"

"Fee, it's now a strong Category 3 with sustained winds of 125 miles an hour. And it's still heading this way. It's not supposed to reach here until late tomorrow night. But still...."

"It's OK, Nina. We'll have our carburetor in a couple of hours and be on our way. We're what, only about a half hour from the landing?"

"Yeah. Forty minutes, max. You're right, but.... Fee, it's not that. If it hits New Orleans, it could do a heck of a lot of damage. *And* kill a lot of innocent people. And what's to stop it from coming right up the river to Baton Rouge? It doesn't look good, Fee."

Dr. Nordman was a strong-willed but generally even-tempered woman in her early forties. Tough as nails exterior. Not much fazed her. But, as was quite evident to Fee, the approaching storm had unnerved her. Her one weakness, if you could call it that, was her unwavering compassion for people. All people....

They heard rustling in the bedroom and soon Sir Rodney appeared, followed by Jane and Billy Joe.

"I was wondering where you were," Rodney said groggily as he wiped sleepers from his eyes. "I dreamed we were back home in L.A. and was all confused for a moment when I woke up."

"Any sign of Tex and Rex?" Jane asked.

“Nope. Not a word.”

“Did he say when our part was coming?”

“Nope. Just sometime this morning.”

When Tex and his trusty Rottweiler finally did appear shortly after 9 a.m., the question on everyone’s mind was....

“When’s the boat coming?”

“Boat? What boat? There’s no boat comin’.”

“What? But you said....”

“I said your paht was comin’ this mornin’. Didn’t say it was comin’ by boat.” He grinned. “It’s comin’ by helicoptah.”

“OK. So, when’s the ‘*helicoptah*’ comin’?” Billy Joe asked. It was clear his patience was wearing thin.

“Should be here by noon. Just got off the radio with Mr. Dirk. He’s the pilot. They have your cahburetuh.”

There was a collective sigh of relief.

While they waited on the helicopter the five biologists helped Tex board up the living quarters and the small fish-processing plant which they had come to call the fish house.

The helicopter arrived at 12:30. Everyone was so relieved to see it no one asked why he hadn’t come several hours earlier. It was no longer relevant. He was here, and so was their new carburetor.

“Thanks so much for doing this,” Nina said as she introduced herself. “You have no idea how grateful we are. I will make sure the university reimburses you right away.”

“Pleasure to meet you, Dr. Nordman. Name’s Dirk. And don’t worry about the part. That’s the least we could do. I’ll wait until you get your boat running before leaving. Meantime we’re going to load up with equipment we don’t want to leave out here, and get Mr. Tilletson and our watchdog off the island.”

“That’s very kind of you, Mr. Dirk. It should only take a few minutes to replace the carburetor.”

Nina headed toward the boat while the other biologists went to grab their personal belongings, which were already packed and ready to go. They were heading back to the boat, backpacks in tow, when they heard Nina scream.

“*Shit!* Goddamn fucking shit!” Nina had been uncharacteristically moody all day, and now she had lost it.

They ran the rest of the way to the boat. “What is it, Nina?”

“It’s the wrong fucking part. *God Damn It!*”

“Are you sure?” Jane asked.

“Yes, I’m sure. And there’s no time now to get the right part. Tomorrow’s hurricane day, and I’m sure every shop in New Orleans is already closed and boarded up.”

The tension in the air was palpable. “I’ll go talk to Dirk and see if we can catch a ride. We’ll just have to leave the boat here. I know the university won’t be pleased about that.”

When they explained their situation to the pilot, he became perplexed. He looked at the five of them with all their gear. They looked at the helicopter and knew immediately what the problem was. This was a small helicopter, and it was already crammed full of equipment. Tex was sitting in the co-pilot’s seat and Rex was lying snugly at his feet. There wasn’t even room for the poor dog to turn around.

“We can remove most of the gear,” the pilot said after taking what seemed an eternity to think things through. “But even then, the most we can squeeze in is two people. I’ll have to come back for the rest of you.”

Without hesitation, Nina insisted on staying until everyone was off the island. The others said nothing. Finally, Sir Rodney spoke. “Fee and I will stay here with Nina.”

“Are you sure?” Billy Joe responded a little too eagerly.

“Yeah, it’s OK,” Fee said.

“I’ll be back to get y’all once I drop the others off. Shouldn’t take more than a couple of hours.” He handed Nina a two-way radio. “Leave it set on Channel 2. I’ll let you know when I’m on my way.”

And with that, they were off. It was 3:47 p.m.

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When Nina still hadn’t heard from Dirk by six ‘clock, she anxiously radioed him to get an ETA. “Sorry, I’ve been detained,” was the only answer he gave. “I’ll be there before dusk.”

“Dusk?” Rodney said after Nina got off the radio. “That’s like 7:30. Why is it taking so long?”

“I’ll bet he’s looking for the right part so he can get all his goddamn equipment off the island,” Nina suggested, her frustration growing by the minute.

“Well,” Fee said a bit more diplomatically, “we can also save the boat.”

“Do you really think he can find a parts store open with a major hurricane bearing down on the city?” Rodney asked.

“If that’s what he’s doing, I sure hope so,” Nina answered.

It was after seven when Nina called him again. “Well? You on your way?”

There was a long pause at the other end.

“Can you fly at night?” she asked.

This time he answered. “Not unless it’s an emergency.”

“And this is not an emergency?”

“The hurricane is still a full day out. I can pick you up shortly after dawn tomorrow. Just hang tight.”

“Fuck!” Nina said after she got off the radio. She looked like she was ready to cry. The day had been especially hard on her. She was the one in charge. The others were her responsibility. Anything goes wrong, it’s on her shoulders. “I sure would feel better if I were back home right now. I still have to secure the house in case the hurricane moves up-river.”

“Everything will be fine in the morning,” Fee assured her. “We’ll be getting a big laugh out of all this by tomorrow evening.”

“We’ll still have to prepare for the hurricane. I don’t care where we are when it hits. Category 3 is nothing to scoff at. Might as well drink all the beer and eat all the food,” Nina said. “Hell, after tomorrow, there won’t even be a fridge to keep it in.”

“Hell nothing,” Fee rejoined. “There won’t even be a house to keep the fridge in.” They all got a laugh out of that. Except Nina.

“There may not even be an island to keep the house on,” Rodney said somberly.

The other two went silent. Party killer if ever there was one.

Sunday, 28 August

After binging on food and alcohol the evening before, they all slept in. As usual, Fee was the first one up. Seeing that the sun was already well above the horizon, she asked no one in particular, “What time is it?” She looked at her watch. It was after eight.

She woke the other two and headed into the kitchen to make coffee. As she did, an isolated gust of wind whistled through the porous walls of their temporary quarters, reminding her of their predicament. In the outer room Nina turned on the weather channel to get the latest updates, hoping the news would be good for a change. It wasn’t.

Stunned and defeated, she entered the kitchen. She was white as a ghost. Rodney was sitting at the table and Fee was pouring coffee when Nina announced, “It’s a Category 5 now. Sustained winds of 175 miles an hour.”

They stared back in stunned silence. There really wasn’t much to say. They were on a tiny island that rose to no more than eight feet above sea level. There was no way they were going to survive a Category 5 hurricane.

But their ride home would be there any minute, carburetor or no carburetor.

They didn’t have to call the pilot this time; he called first. They jumped at the sound of his voice, booming over the two-way in the other room.

“I’m on my way. Couldn’t find a replacement part for your boat, so it looks like you’ll be getting a grand tour of the scenic Mississippi from 500 feet up.”

The three of them erupted into gleeful pandemonium, dancing jubilantly around the room embracing each other with abandon. “Come on,” Nina said. “Let’s pack up and get our shit outside by the helipad.”

“Might as well grab the equipment they left behind as well,” Rodney suggested. “We oughta be able to at least get some of it onboard.”

Once they had everything ready, they returned to the radio and tuned it to the weather channel. That’s when they got the really bad news.

*Mayor Nagin has ordered an immediate evacuation of the entire Parish of New Orleans, effective immediately. He will be working with Governor Blanco and President Bush to coordinate this major effort.* The reporter went on to explain the procedure for getting those who had no other means for leaving the city to be evacuated to the Superdome, New Orleans’ massive, covered football stadium. Buses were being deployed from all over the state to assist with the evacuation. All available small craft and helicopters were to assist in moving people to the Superdome.

Nina, Rodney, and Fee were in shock. “All helicopters?” Rodney repeated, sounding defeated.

“But Dirk’s already on his way,” Fee reminded him. “We’ll be off the island in minutes.”

But the news got worse. It was Dirk. “I’ve been ordered to help out with the evacuation. I’ve contacted the university. They’re arranging for one of their helicopters to come for you. There’s still plenty of time.”

They tried contacting Dirk several times to find out how they could contact the university and stay abreast of their progress in dispatching a helicopter, but they couldn’t raise him.

The roller coaster of emotions was wearing on them. Everything that could have gone wrong had. The wind had picked up. The sea was now covered in whitecaps. Cumulus clouds were

massing on the southern horizon. If they weren't evacuated soon, airlift by helicopter wouldn't even be an option.

Nina tuned the radio to Channel 1. They heard someone requesting the proper procedure for establishing priorities when evacuating people to the Superdome. As soon as Nina heard "Over and out" she cut in. "Break, break, break!" But before she could state their emergency someone cut her off.

She scrolled through the other channels, but all were clogged with traffic. She finally settled on Channel 2, the channel they had been using to communicate with Dirk. After an exasperating ten to twelve minutes she finally got through. "This is Dr. Nina Nordman, party of three. We are stranded on North Breton Island and need to be evacuated immediately. The storm is approaching and our boat is disabled. Our helicopter has been diverted to help with the evacuation of New Orleans. We cannot, repeat, *cannot* survive the hurricane on this tiny island that has no adequate shelter. Over."

"Please state your coordinates if you know them."

Nina was prepared. "29 degrees, 29 minutes, 37 seconds north; 84 degrees, 10 minutes 29 seconds west." She spoke slowly, emphatically. "Repeat. Two nine, two nine, three seven north, eight four, one oh, two nine west. Over."

"Copy that. Is there a boat landing on the island? Over."

"Yes. And a helipad. Over."

"Roger. Stay tuned to this channel while I look for assistance. Over."

"Roger. Over and out."

It was 9:49 a.m. All they could do now was wait. And wait they did.

At 10:27 she broadcast their emergency again. A different person answered who knew nothing of the first call. She said she would look into it.

"Wait!" Nina said. "Is there no coordination of the evacuation effort? What is to prevent us from going through the same routine next time we call?"

"We're doing the best we can under the circumstances."

"Roger. Isn't there a number or code you can assign us that links to our evacuation order?"

"No ma'am."

"Break, break, break." Someone else was trying to break in with their own emergency.

She gave up and tried Dirk again. Still no luck.

They made little progress over the next hour and a half. While Nina stayed by the radios, Rodney and Fee began reinforcing the boards on the windows with some 2X4's they had found out behind the fish house just in case they got stranded. But about half-way through they stopped.

“What are we thinking?” Fee pointed out that the house was made of wood. It sat on stilts which placed it higher than the fish house, but the fish house was made out of reinforced concrete. It wouldn't be the most comfortable place to ride out the storm, but at least it had a chance of withstanding the wind and rain. Its biggest weaknesses were its corrugated metal roof and two sliding metal doors that, when opened, allowed space for two small boatloads of fish to be pulled up on two parallel ramps and into the building on wenchers. But it would have to do. They stripped the 2X4s off the windows of the house and put them across the boards on the fish house windows. They found a stack of sandbags against the back wall and piled them up against the long doors, both inside and out. But even a modest tidal surge would push water over the top of the island. Even with sandbags at the base of the doors, they would not be able to keep water from seeping into the makeshift shelter.

Nina was able to get through to the command center one more time but encountered the same difficulty. Different person. No record of her earlier calls. She asked if they could contact the university but could not give the man any specifics other than the name of the chancellor and the dean of her department. The man said he would try.

Meanwhile, Fee and Rodney hauled all the food and water from the house out to the fish house. Then they grabbed the mattresses off the beds. By the time they had finished, they felt confident that the walls would hold up to the wind. But the corrugated metal roof was only supported by several wooden crossbeams. It would not last long in the wind, so they would have to settle for getting wet and a little windblown. If, of course, they had to weather the storm at all. They still held out hope that they would be rescued.

But the storm surge. They hadn't factored in the storm surge.

By 4:30 they had all but given up hope of being rescueded. They had heard nothing more from Dirk and nothing from the university. The wind was blowing at a good clip now, and rain squalls were kicking up all around them.

“Birdbrain Three, this is Foxtrot Four-Oh. Do you read?”

“It's Dirk!” they all screamed in unison as they raced to grab the two-way. Was he really going to make a go for it in this weather?

“This is Nina. Go ahead Dirk,” she said anxiously.

“What's the weather like out there?”

“Not so good. I think the hurricane's almost here.”

“What's the anemometer say?”

Fee, standing by the portable weather station, called out, “25 miles an hour with gusts to 35.”

“Piece of cake. I’m already half way there.”

“Dirk. Be careful. Are you sure you can fly in these conditions?”

“I guess we’ll find out, won’t we.”

“Dirk. I’m not so sure. We’ll be fine, OK.” Nina’s voice was trembling and unconvincing as she spoke the words.

“No you won’t, Nina. They’re predicting 30-foot waves. The island’s only 10 feet high. Hang tight. I’ll be there in thirty minutes. I’m gonna give it everything I’ve got. I’ve been flying choppers for thirty years. They don’t get any better than me.” With that the radio went silent.

The next half hour was an eternity. By five o’clock the sky had turned an ugly blackish-green, and it was now pouring. The wind was whipping the rain around like a million bees on a drunken tirade. It stung their faces when they turned into it and pounded their backs relentlessly when they turned away. According to the anemometer, the wind was “only” 40 miles an hour, but it sure felt stronger than that. They couldn’t even imagine a hundred-mile-an-hour wind, much less winds nearly twice that strong.

“Do you think he can land in this?” Rodney asked.

“Will he even be able to find the island?” Fee wondered.

“God, I hope he doesn’t kill himself trying to rescue us.” The pressure on Nina to see that everyone, including the pilot, returned safely to the mainland was overwhelming.

Ten minutes later they had given up hope and were resigned to their fate. “Our only hope now is that it isn’t a direct hit,” Nina said.

The wind was getting stronger by the minute and the rain was coming down even harder. They headed for their makeshift shelter, which now seemed laughably inadequate. Ten feet above sea level. Thirty-foot waves....

Rodney was the last one in. As he was pulling the door shut, he stopped dead in his tracks.

“Did you hear that?”

“What?”

“Listen. Off to the west. Is that the helicopter?”

Fee and Nina bolted to the door. “Yes!” Fee screamed with elation.

Nina could hardly believe her ears. “He’s made it! God *damn* it. He’s made it!”

Two minutes later Dirk was struggling to land the helicopter on the volleyball court. The wind was tossing it about like a feather. After a couple of minutes he gave up and lifted into the air.

“Not after all this!” Fee was in tears.

But he hadn't given up. He was seeking shelter behind the house—downwind. It worked. He managed to get both skid plates on the ground and hold them there. Fee was first on board, with Rodney right behind her. But he hesitated at the last minute.

“Go!” Nina screamed.

“After you!” Rodney screamed back. “Ladies first.”

Not wishing to deal with formalities, Nina climbed aboard with Rodney right behind her. But as he grabbed the hand-hold and prepared to step aboard, the chopper was jolted off the ground by a sudden gust of wind. He lost his balance and fell hard onto his back. He struggled to get up. The wind had increased noticeably in the last few minutes.

In her panic, Fee climbed over Nina and exited the craft despite strong objections from the pilot, who was concerned that they would not make it back if they didn't leave immediately. She grabbed Rodney, now confused and disoriented, and helped him onto the step below the door. Nina leaned out to assist, the helicopter still being buffeted relentlessly by the angry wind.

Another violent jolt and Fee momentarily lost her grip on Sir Rodney. He tumbled to the ground again. With Fee perched precariously on the step and holding on to the hand-hold with one hand, Dirk lifted off. Nina pulled Fee, who was screaming hysterically, into the cab. She had to hold Fee down as she tried to climb back out and have one more go at saving the love of her life. Rodney struggled to his feet, but the craft was now thirty feet off the ground and rising fast.

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The full fury of Hurricane Katrina struck North Breton Island around three in the morning, pushing up 40-foot waves as it passed. The beach had completely eroded away. The island, now completely stripped of its vegetation, had been displaced 150 feet to the west and was only half its original size. The living quarters and fish house, the only two structures on the island, had been swept away. Only their foundations remained, and they were tilted precariously at the edge of a steep embankment that was the new high-tide line.

Sir Rodney's body was never recovered.

## INCH BY INCH

### A synopsis of the final chapter in *The Many Faces of Fee* trilogy

The year is 1989. Matthew Rutledge and Jannik Jeffers, two eminent climate scientists who work for Arctic Oil Alliance, the world's third largest oil firm, are left stranded on a remote coastal stretch of northwestern Greenland. They are never heard from again.

Fast-forward eighty years to 2069. Lily Ulrich and her pregnant 15-year-old granddaughter Anastasia Olsen have just discovered in their backyard the nest of an American tree sparrow, a southern species that has never been reported as far north as Greenland. Meanwhile, Anastasia's brother, 17-year-old Anton, has been following on his wall-sized 3D monitor the movements of his robotic personal assistant Husky along the coast of Melville Bay more than five hundred miles north of their tiny village of Jakobsholm. Husky has just found what appears to be a human mummy. Anton drops everything and runs out into the yard to tell Mormor (a familiar term for Grandmother in Danish). Lily and Anastasia rush in and Lily soon finds herself staring into the sunken eyes of a well-preserved corpse that had been partially exposed by the late spring snowmelt.

But Husky has another surprise. The corpse is clutching what looks like a logbook or diary. With Husky's assistance, Lily begins reading. Her live-in grandchildren, growing bored, go out into the yard to play. Several hours pass before Mormor finally emerges from Anton's room. She is white as a ghost and can hardly speak. "Why?" she asks. "Why hadn't the world learned of this decades ago—before it was too late?" When asked to explain, Lily responds, "The story begins way back in 2005."

Hurricane Katrina had dominated the news in late August and early September that year. A remarkable young woman named Fee Finnegan, accompanied by her spouse Rodney Rutherford, Dr. Nina Nordman, biology professor at LSU, and two of Nina's graduate students, was studying the plight of Brown Pelicans nesting on a small group of low-lying islands off the coast of Louisiana. While out there, the biologists learned of a hurricane building in the Gulf off the west coast of Florida and planned to return to the mainland the following morning just to be on the safe side. But boat problems, inexcusable delays, and the unexpected order to evacuate all of New Orleans the day before the hurricane struck had delayed their departure until it was almost too late. They were rescued by helicopter as the approaching storm intensified. But with the helicopter being whipped about by strong winds as they attempted to board, Rodney lost his grip and fell. Fee and Nina, already aboard, tried frantically to help him up, but the pilot was forced to lift off prematurely when another gust of wind nearly toppled the helicopter. Rodney's body was never found.

After losing the father of her 6-month-old child Hayden, Fee was left adrift. Since high school she had been studying the possible role of the introduced European starling in the slow but steady decline of the loggerhead shrike, a small avian predator, but now her work seemed trivial in the overall scheme of things. People were blaming Hurricane Katrina on global warming, a phenomenon that, if true, could have an insidious long-term effect on the planet, possibly even upending life as we know it. To honor Rodney she decided to devote her career to learning more about global warming. Was it as sinister as many scientists insisted, or was it mostly hype perpetuated by a few well-meaning but misguided scientists and a complicit media?

She entered graduate school at the University of California—Irvine the following year to study under eminent climatologist Friedrich Olmstead. Her thesis: *Hockey sticks or hokey shticks? Why science and politics don't mix*. Dr. Olmstead was a delight to work with. He was very bright, inspirational, passionate about his field of endeavor, and a role model. He was also young, charismatic, and ruggedly handsome. It was these latter traits that caused Fee to veer off course, and she soon fell under his spell. While on a trip to Antarctica

he came on to her with an intensity that bordered on sexual harassment. Although knowing better, Fee succumbed to his charms and they were soon in an intense relationship, even though Dr. Olmstead was married and had three kids.

A year later she co-authored a paper with him that put Antarctica on the front pages. However, the day it was published in *Nature*, Fee noticed a small but significant change that Olmstead had made at the last minute without first consulting her. The claim made by this change was not supported by the data, and Fee saw it as a means of grabbing media attention at the expense of scientific accuracy. She knew the global warming skeptics would cite this as proof that climatologists are agenda driven, that they disregard the facts in order to cram global warming alarmism down the throats of the American public. And sure enough, they did.

Already strained by their illicit affair, this indiscretion was the final straw, and Fee abruptly ended the relationship. She published a note in *Nature* in which she requested her name be disassociated from the paper. The following semester she transferred to Amherst College in Massachusetts where she could be close to her parents. Dr. Madelaine Young became her new advisor and she graduated *summa cum laude* two years later with her Ph.D. in climate science.

A year later, in 2009, she landed a prestigious appointment with the Environmental Protection Agency, and nine years later found herself before a hostile Congress fighting for the life of the very agency she worked for. Despite her brilliant, timely, and highly compelling presentation on the critical importance and economic benefits of a strong agency devoted to protecting the environment, Congress voted to emasculate the EPA, rendering it perfunctory—severely understaffed and underfunded. The recently appointed director had vowed to do away with the agency only two years earlier and had been appointed by an administration hell-bent on granting him his wish.

Fee learned an important lesson from her appearance before Congress: it is nearly impossible in a public forum to change the entrenched views of those who oppose you. To be effective you must nibble at the edges of their ideological bubble, present reasons why it is in their best interest to embrace opposing concepts, and make sure they own their changed perspective. They should not be made to feel threatened, coerced, or belittled. Enlighten them in areas that may seem peripheral to the topic at hand, and then link the two. Provide irrefutable evidence to support your case. But above all, be receptive to their point of view no matter how wrong-headed it may seem. And look for common ground. Politicians, in particular, need to be convinced that their constituents will embrace their enlightened viewpoint. When dealing with politicians, emphasize the difference between short-term positions that may sit well with your constituency versus the creation of a strong legacy, which can only come from being on the right side of history.

Fee decided this was best done in a non-threatening social environment. She began working the social scene on Capitol Hill, using her charm to befriend her adversaries. She attended balls, dinners, fundraisers, and ribbon-cutting ceremonies—activities she inherently abhorred but came to realize were essential to both her professional survival and the long-term viability of the planet. She made a point of remembering the names of people's wives and children, even their pets, their favorite types of recreation, their hobbies and other passions. She found common ground and gained their trust. Instead of avoiding her at social gatherings, her former adversaries began seeking her company.

Although Fee's passion was the science of global warming, she had become well aware that espousing the dire consequences of a phenomenon most of her target audience did not even believe in was folly. She knew she must first convince her adversary to embrace science—to trust science, not run from it. Science was not their enemy; prejudice was. Science is the foundation of modern medicine, of modern transportation, space exploration, the internet—yes, even oil and gas exploration. Indeed, without science we would still be living in the Dark Ages. The industrial revolution would have never occurred.

She pointed out the undeniable facts of climate change. To deny the existence of global warming, or to pretend that the devastating effects of unchecked global warming were nothing more than fantasy, would not be in their long-term interest. “Ask yourself,” she repeatedly found herself emphasizing to drive her point home, “why do you think industry giants, including the oil and gas industry, are modeling their business plans on a future world fundamentally transformed by global warming, even while publicly denying its existence.”

But as Fee made incremental progress over time, her efforts were undermined by successive administrations bent on using fabricated news stories and faux scandals to undermine its enemies, of which Fee was one, and to confound the public. In the end, the global warming debate got pushed into the background as other pressing issues came to dominate the headlines.

Early on in her quest to achieve a broad consensus among scientists, politicians and the lay public on the basic science of global warming she suffered two major setbacks, one at the hand of her son, the other at the hands of Big Oil. At one of these social events, the reception for the newly confirmed Justice of the Supreme Court, her college-bound son Hayden met Maya Sorenson, the daughter of Texas’ junior senator Hal Sorenson, the global warming skeptic who had dogged her so persistently during the congressional hearings the year before. Hayden’s budding relationship with the senator’s daughter began to put a strain on his relationship with his mother, as he, under the influence of Maya’s spell, grew more and more distant and combative. In direct opposition to his mother he increasingly came to be aligned with the naysayers.

One thing Fee did accomplish in her relentless campaign to wheedle and cajole reluctant politicians into embracing the science behind global warming was to raise the ire of the oil companies, most notably Arctic Oil Alliance, now the most powerful oil company in the world. She began receiving veiled threats to back off from her hardline stance on global warming. At first she did not know where the threats were coming from but soon began to suspect AOA. She investigated their history of outspoken global warming denial while investing heavily in renewable energy resources. In doing so she stumbled upon old news accounts of the tragic disappearance of AOA’s two eminent climate scientists Matthew Rutledge and Jannik Jeffers back in 1989. She soon suspected there was more to their disappearance than had been revealed in the official record. Unanswered questions about the details surrounding their disappearance remained. Most surprising was the fact that there were no meaningful, publicly available scientific publications authored by these two highly acclaimed scientists once they had become employees of AOA. Had they not conducted any research of consequence in the eight and ten years, respectively, each had worked for AOA? When pressed, AOA executives had stated simply that the documents were classified. Classified? Why? Did their research reveal potential Arctic oil reserves the company did not want to disclose to competitors? Not likely. The scientists had been focused on examining ice core samples, not exploring for new oil reserves. Perhaps they had stumbled upon something else the company did not want the world to know about. But if so, what?

Fee tracked down Rutledge’s wife Diana who was still alive and living in Houston near where Fee had grown up. Diana explained that her husband had become frustrated when his and Jeffers’ research was suppressed by the company. He hadn’t been able to tell her much because of non-disclosure agreements he had signed with the company, but he had given her the distinct impression that he was sitting on something big. She also mentioned in passing that the helicopter pilot who was the last to see them alive had not attended their memorial service. He may be the only person who knew the true circumstance of their deaths. Fee decided to find out.

Hayden was now engaged to Maya Sorenson who, conveniently, was working as an office assistant for AOA at their corporate office in Houston. Fee asked her if she would be willing to dig up the old files from the 1989 expedition to Greenland known as Operation Cicero. Maya gladly complied, claiming to anyone who might ask that she was fulfilling the request of one of her bosses who needed an old file on a project

in the Texas panhandle a couple of decades back. Maya learned that all AOA's archived files were stored offsite in a warehouse, and she had no problem obtaining a key. But to her surprise the Operation Cicero files were missing. No other files, even those going back to the 1970s, appeared to be AWOL.

This only increased Fee's suspicion. She asked Maya to obtain AOA's employment records from the late 1980s if she could, and if possible, the names of the company's licensed helicopter pilots from that period. This time she struck pay dirt. Maya found the personnel records of three helicopter pilots, including the one who had participated in Operation Cicero, a Mr. Stieg Johansson.

Fee found Johansson in a local eldercare facility. As he was about to disclose what had really happened on that tragic date, evidently to free his conscience before he passed on, a nurse came in with his medication. She was a new nurse, one he did not recognize. Moments after taking his medicine he had a massive seizure and died.

AOA had grown suspicious of Fee's recent behavior and had been secretly monitoring her activities for several weeks. To get her to back off, the company began terrorizing her. Only hours after her visit with Johansson, Fee came home to find her cat Tracks missing. When she turned on her computer she was horrified to see that her desktop, instead of displaying Tracks resting comfortably on the couch, now displayed Tracks hanging from a noose with a note impaled by a knife through her heart. Scrawled on the note were the words "Back away now or Hayden will be next." After allowing her just enough time to read the note the screen reverted back to the serene image of Tracks asleep on the couch, leaving no trace of the image Fee had just viewed.

A few days later her father Scott, for no explicable reason, lost his job just three years prior to retirement. And the day after Fee hired a private investigator to look into the threats, she came home to find an image of Hayden on her desktop, his back to the camera, as he was entering a store. He had been photographed through the sight of a high-powered rifle pointed at his back. This time there was no note, but she got the message.

Fee knew it would be senseless to go to the authorities because there was nothing they could do without any evidence of wrongdoing. If AOA was trying to drive her to a nervous breakdown, it was succeeding. It was almost as if they knew she had engaged in self-destructive behavior as a child and had been diagnosed as borderline suicidal. Apparently AOA did not want to kill her outright, but perhaps instead to drive her insane. And they had been exceedingly careful not to leave any concrete evidence of their intimidation.

Three weeks after she had viewed the image of her son through the sight of a rifle scope, she received some very exciting, almost unbelievable news. Her spouse Rodney, who had been presumed dead for more than two decades, was still alive and living in New Orleans. When she returned from work she retrieved a long voicemail on her home phone. It was from Rodney—definitely his voice. She was stunned but elated. He explained that he had survived Hurricane Katrina but was found near death lying in the surf on the mainland seven miles from the small island where he had been left to die. But he was suffering from severe amnesia and had no memory of his past or even of who he was. Only recently had his memory come back, one piece at a time. He left a number, said how much he loved her, and hung up.

Fee called back immediately, her hands trembling and her heart pounding. But when she reached a woman at the other end she received devastating news. Rodney had succumbed from his injuries only a couple of hours after placing the call. The lady, who identified herself as Nurse Marlene Tackett, expressed her condolences, gave Fee another number to call, and hung up. Heartbroken, she called the number and got the switchboard at New Orleans East Hospital. After being transferred several times, she received the soul-crushing news that they had no record of a Rodney Rutherford or a nurse Tackett. Nor did they have any record of the phone number her husband had supposedly called from. Fee soon learned that the phone

number was temporary, that it had been assigned to a Mr. John Smith, and that it was no longer in service. It had all been an elaborate hoax.

Fee was devastated. She could not tell anyone, lest they think she was losing her mind. But Hayden sensed something was seriously wrong. His mother was moody. She flew into a rage at the slightest little thing and threatened to disown him if he did not part with his fiancée and come to his senses on global warming. In her bathroom Hayden found a recent prescription in her name for Xanax. The prescription had been filled only a week earlier for sixty tablets and a recommended dosage of one tablet three times a day. There were only eighteen tablets left, meaning she had been taking twice the recommended dosage. He confronted his mom, bottle in hand, but she told him to fuck off and stop meddling in her private affairs.

Three days later, on Christmas Eve 2026, Fee disappeared. The following day her clothes and a suicide note written in blood were found on the 14<sup>th</sup> Street Bridge. It was winter and the region was experiencing an unprecedented cold spell. The note was short: “I drank the wine and now I’m fine.” Fee’s body had presumably washed downriver beneath the Potomac’s icy surface and out into Chesapeake Bay.

Hayden was devastated. For reasons ostensibly unrelated to his mother’s suicide or to his own vacillating political views, He nearly broke off his engagement to Maya, but their relationship ultimately survived all the turmoil in his family life. He and Maya gradually came to support his mother’s convictions and vowed to continue her work on pressing global environmental issues.

As far as Maya and Hayden knew, Houston-based AOA and Senator Sorenson, were still tight. The senator was still doing AOA’s bidding before Congress, and by association was, in Hayden and Maya’s mind, complicit in AOA’s driving Fee to suicide. They became livid with Sorenson and all but accused him of murdering Fee.

But unbeknownst to them, Mr. Sorenson’s relationship with AOA had already begun to fray before Fee’s death, and he could not escape the recognition of AOA’s likely role, however indirect it may have been, in her demise. Despite their strong differences of opinion on global warming, he and Fee had become close friends before her death. Fee had come to respect the position the senator was in with his constituents in oil-rich Texas, his role in protecting their jobs, and the undeniable fact that accepting the future perils of unchecked global warming would mean advocating for green energy and the phasing out of fossil fuels, the lifeblood of Texas.

At the same time, evidence of a rapidly warming Earth and its potentially devastating consequences was becoming too obvious for Sorenson to ignore. Sea levels had risen even faster than predicted. Low-lying island nations in the western Pacific and Indian oceans were at risk of disappearing altogether before the end of the century. Twenty out of the last twenty-three years had been the warmest on record. Drought had long since become the norm in the southwestern U.S. and northern Mexico, much of Australia, and throughout western and central Asia. Add to that record spring floods in other regions around the world, hurricanes of increasing intensity, more frequent tornadoes, massive calving ice shelves in Antarctica, and melting glaciers in Greenland—all just as climate scientists had predicted. In fact, the ice in Greenland was melting at an ever-accelerating pace—the “greening of Greenland” as it had come to be known. Most coral reefs were now dead, and major marine ecosystems had collapsed worldwide. Arctic economies began thriving as previously frozen land had either become arable or was being mined for its extensive mineral and ore deposits. And the Northwest Passage was now ice-free year round.

Fee’s death continued to haunt Hayden. Her suicide note: “I drank the wine and now I’m fine.” What did that mean? Was it some sort of clue to her death? Had she poisoned herself? Or was she poisoned by an adversary who disguised it as a suicide? Or, hope against hope, was she still alive and in hiding? He discussed the note with his grandparents, Scott and Susan Finnegan. They, too, were puzzled, but were

dismissive of any hidden meaning it might contain. Then, at 3 a.m. a couple of months later, Hayden got a call from his grandfather. "I may know what she meant by 'I drank the wine and now I am fine.' If I'm right, she's still alive."

Hayden decided to find out. If she was still alive where was she? Partly driven by guilt that he had betrayed his mother by marrying into the enemy's clan and turning against her on global warming issues, he decided to devote his life, not only to carrying on her campaign to warn the world about the perils of unchecked global warming, but to finding her. Maya and her father were now fully in his camp. Senator Sorenson used the power of his office to elicit help from the FBI in tracking her down if she was, indeed, still alive.

As the years passed, world affairs continued to deteriorate. Monoculture crop failures were contributing to widespread famine, especially in Africa and southern Asia. New, super-resistant viral strains were increasingly becoming pandemic. Widespread water shortages precipitated by drying aquifers forced tens of millions of people to migrate to water-secure regions, which in turn created major political instability. Steadily increasing geopolitical turmoil, the rampant spread of terrorism, and an increasing number of failed states dominated the news and also threatened what remained of global stability. But perhaps most disturbing for the future of humanity was that male fertility was waning at an alarming rate, the result of environmental contaminants that were irreparably damaging sperm. For the first time in memory the global human population was decreasing.

Then the unthinkable happened.

What unthinkable calamity changed the world? Did Hayden ever find his mother? Was she even still alive? And lest we forget, just what was in Matt Rutledge's diary that had so devastated Lily Ulrich 80 years after his death?