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THE APPOINTED TIME

Spencer Travis drove his jeep onto the levee road and closed and locked the steel gate north of Barfield, Arkansas. He settled the old straw hat on his head for his first day of levee patrol, climbed back into the jeep, and buckled in.

Shifting into first gear and letting out the clutch pedal, Spencer felt the gearbox jerk the jeep into motion as he headed down the dusty ruts to begin his inspection. He always had trouble with manual transmissions.

The river ran six feet above flood stage in this section, within seven feet of cresting the earthen dike. At that level the river water stood eight feet higher than the farmlands just to the west.

Spencer's trainer on Thursday had emphasized, "Just watch for water boils along the landward base of the levee." She pointed to a faded photograph. "Wherever there's seepage working its way through the dikes it looks like that. That's a sure sign of a weak spot that needs attention."

Spencer's whistled rendition of "Zippa-Dee-Doo-Da" competed with the sputtering exhaust of the engine as he guided the jeep along the dirt ruts atop the levee. Happy to be back at work, he bounced on the cracked vinyl seat, held in place by the new seat belt and shoulder harness. He looked over the three-foot high Johnson grass waving on the sides of the levee, toward the waters of the river to his right and the newly planted cotton fields to his left.

A rabbit darted from the grass and bounded across the ruts right in front of the jeep. Spencer slammed on the brakes, killing the engine, then laughed. "You got to be more careful up here on this levee, Mr. Rabbit, what with me driving."

Near Ditch 14A the river had touched the base of the levee for five weeks, saturating its foundations with water. In the last week it had risen closer to the top. Spencer could see that water in the bottom of the ditch away from the river seemed to be flowing, flowing toward the cotton fields.

Stopping above the ditch, he scanned the area along the base of the levee with his binoculars and spoke to the old jeep in amazement, “Well, I’ll be damned. There’s one of them boils. It looks just like a little artesian water spring on the side of the dike.” He compared it with the faded photo. “Right, that’s what it is. First day out and I’ve already earned my keep.”

Spencer picked up the two-way radio and called the Osceola dispatcher. “Hello, dispatch, this is Spencer Travis. I’m patrolling the Barfield levee. I’m at Ditch 14A and a real live boil’s coming out the bank below me.” He continued with a more detailed description of what he saw.

The radio emitted static until the voice of the dispatcher answered, “I copy that. You’ve got an active boil at Ditch 14A above Barfield. I’ll dispatch an evaluation crew within the hour to take a look.”

“Great. Now what do I do? Keep going north on the levee or wait here?”

“You move on up north, and keep a real close lookout. Where you find one of those things, you most often find another.”

Loretta stood in the little park on the levee just outside the Ward Street floodwall in Caruthersville, Missouri. She stared at the towboat and barges a mile and a half upriver coming along the main channel. Boats on the river had always fascinated her since listening to her dad tell of his work on river barges. Turning, she watched the *Bella Queen* excursion boat casting off from the casino dock. Interesting, she thought, if it pulls out too soon the two boats are going to have a problem navigating around each other.

She had driven that morning from the bungalow in Hayti, one that JQ McCrombie, the contractor from Memphis, kept for her. Earlier in the week she had told her sister over the phone, “Fran, JQ’s real nice to me and treats me good. He’s told me how he just got another big deal

fixing up the highway bridges so they won't fall. And he's got a building with his name on it down in Memphis."

Fran had laughed. "Loretta, that dude's just stiffing you. He's a bastard and won't give you anything but money. No way you'll get his name. He knows what you are."

"I know, but I like to dream." She sighed. "Anyway it's nice to go into Caruthersville. I can always get better prices in the larger stores and besides, I can prospect for other business." Loretta had bowed her head. "I just wish JQ would give me more money so I didn't have to go around free-lancing. That way I wouldn't feel so much like a whore."

Her sister, also a working girl, had replied, "Yeah, tell me about it. Just don't forget who you are, babe."

Gazing back over the river Loretta saw how the water ran high, lapping at the edge of the grass next to the old cottonwood tree at the foot of the park, but that was usual in May. The paper said the river would be eight feet above flood stage soon, higher than most of the streets behind the floodwall, but the city still had seven feet of levee for protection. Plus they could sandbag the floodwall enough to ensure the safety of the town.

It felt good to rest her hip against the steel post and let her yellow dress soak up the sun. The temperature must have climbed three degrees in the last five minutes, and the humidity made her feel sticky, but she didn't have to hurry. She'd stay and watch how the boats got around each other.

Besides, one of the men at the grain elevator might be watching. She bent her right knee to assume a more suggestive pose, turned her leg out a bit, and squared her shoulders to emphasize her breasts.

Jeff steered the tow a degree to port, anticipating the next buoy. "Cap'n, take a look. There's a riverboat casting off at Caruthersville."

Buddy Joe looked up from the chart to study the activity a mile downriver. "Uh-Oh, Jeff, we've got a problem. That's the *Bella Queen* and you're right. She's just now leaving the Caruthersville casino barge. Unless Captain Ruggs gets a move on real quick, I'll have to pass that tourist boat at the same time we go under the I-255 Bridge."

Buddy Joe reached for the radio microphone. "But if he'll just stay where he is, at this speed we'll close in seven minutes." Flicking the

switch to the local frequency and pressing the button he spoke. “Captain Ruggs, this is Captain Simpson of the *Lady Bird Jamison*. We are cruising downriver a mile and a half above your current position. Please hold the *Queen* in place until the *Lady Bird* is clear.”

On the *Bella Queen* Barney listened to Buddy Joe’s voice from the speakers on the wall of the wheel house ordering him to stay in place so the towboat could pass. He had started to speak several times, unsure of just how to put what he had to say.

“Now, ah, Buddy Joe, ah, hold on there.” He waited to be sure Buddy Joe would be quiet. “The folks on this boat would be very upset if I fell in behind a towboat. They’d wonder why I didn’t get ahead of it. Buddy Joe, it’s a matter of principle. I’m pulling into the main channel now.”

The voice on the radio came back. “Well, I don’t plan to slow down, so you better get your little tourist boat headed downstream pretty fast. I’m moving at 13 knots with this current, but I’ll stay half a mile behind you if you’ll get a move on.”

“I’ll do just that, Buddy Joe.” Barney’s red face reflected his response to the pressure. “Just keep your temper down and I’ll keep out of your way. Besides, it looks like it’ll be a nice cruise down the river today, don’t it? And maybe we can talk along the way.” Barney and Buddy Joe often chatted when they met each other going up and down the river. Today would be one of the rare times when they would travel in the same direction and remain in close contact for the entire day.

Buddy Joe sounded gruff but laughed. “If you say so, you’re the one who does all the talking. Just get a move on.” Barney smiled and relaxed when he heard Buddy Joe chuckle.

Jud stepped back from the loot he had laid on the dirty blanket on the side of the slough above Osceola. He scratched his elbow and watched warily as the scruffy fat man, his hairy stomach falling from beneath his khaki shirt over his belt, poked through the assortment of fishing reels and boating equipment.

Jake said, “This all you got? I’d a thought that in a couple a weeks you could pick up lots more than this. There ain’t more than 50 dollars worth of junk here.” He spat tobacco juice into the nearby poison ivy.

“Jud, you’re spending too much of your time popping meth, drinking beer, and screwing your 12-year-old sister.”

“Only 50 dollars? You gotta be crazy, Jake.” The thin, pimply-faced 17-year-old reached down to scratch the “speed” bumps on his knee through his torn jeans. His tennis shoe rested in the mud next to a beat-up johnboat pulled partway onto the bank.

“I cain’t just breeze into any marina and go through every boat. I got to keep a low profile and search the empty boats after it gets dark. It ain’t easy finding stuff like this along the river.” He sniffled and wiped the back of his dirty hand across his nose. “I figure there’s at least 70 dollars worth of good stuff there. You’ll be able to sell it for a two or three hunderd at your second-hand store in Osceola.”

“Fifty-five.”

“Sixty-five.”

“Fifty-five, take it or leave it.” Jake pulled out his billfold and peeled off two twenties and three fives. “Do you want some beer? I fenced a few cases from Billy Jack last night. I kin give it to you for half price, two-fifty a case.”

“Sure, I’ll take a couple a cases.”

Jake put a five back in his billfold and handed the remainder to Jud. He spat again into the poison ivy.

Jud walked to the back of Jake’s rusty pickup and lifted out two cases of beer. Walking over to place them on the floor of his boat, he looked up to see Jake waiting with hands on his hips. “Whadaya want, a free beer?”

Tina, the waitress, stopped in front of Chris holding the coffepot. “Warm-up?”

“Sure, why not?” He stared into his cup, watching the cream and coffee mix in a swirl. The girl moved down the counter to serve a couple of truckers talking baseball. Chris looked up to see the cook place an order on the serving shelf under the red lights. The second hand of the clock on the wall behind the old man moved past 12. The big hand pointed to 34.

Nine seconds later, at 9:34:09, the earthquake that Chris Nelson’s program had predicted became fact. Eleven miles beneath New Simon the rock matrix ruptured, starting a fracture that over the next 23.5

seconds would grow along the southern extension of the New Madrid Fault, reaching southwest to Lepanto, Arkansas, and northeast to Ripley, Tennessee.

In the next four minutes the Mississippi and Ohio Rivers would break from the quaking. The lands from St. Louis and Cincinnati to New Orleans would be shaken to destruction.

In less than 30 seconds, Chris, rushing back to his seismic station on the other side of the interstate, would lie in his crushed truck beneath a fallen overpass, a casualty of his own earthquake.

Earlier in the morning aboard the *Bella Queen*, a young man rolled over half asleep and encountered resistance. When he noticed he lay on a small bed next to a naked lady, it took a moment before his drowsy mind remembered that he and Lynn occupied a riverboat cabin on the Mississippi River at Caruthersville. Today their boat would depart downriver toward Memphis for an evening's entertainment at the Jazz Festival, then return on Sunday.

Ron Cannon smiled as he recalled the evening before. What a joy, at least it had been once he awakened from his stupor. Things had been touch and go after he departed the open house party in Memphis yesterday afternoon. He had a couple too many drinks while listening to that fellow Chris Nelson talk about the chances for a big earthquake on the New Madrid, and he had arrived late at the airport to pick up Lynn. But later, before falling asleep, he declared his love to her, so she had been forgiving when he awoke.

Lynn Browne, an Air Force Captain stationed at Scott Air Force Base east of St. Louis, and Ron, a retired Air Force Major and former C-17 pilot now with Federal Express at the Memphis International Airport, had worked together for the past two months. Their assignment had been to prepare a joint contingency report detailing how the Air Force Logistics Command and Federal Express should handle a catastrophic event, such as a terrorist attack or an earthquake on the nearby New Madrid Fault.

Both recent divorcees on the bounce, they had let their close working relationship develop into something more. Having finished an assignment the previous week, they arranged to celebrate the report's

completion and test their personal relationship with a weekend outing on the river.

Pushing on her shoulder in the early morning light, he had whispered, “Hey, sleepy head, wake up. We’ve got a whole new day ahead of us.” Lynn roused, turned her head toward his face and put her arms around his neck, surprising him with a kiss of fiery rapture.

An hour later after they slipped out of bed, Ron stepped into shorts and a tee shirt and stuffed his toes around a pair of thongs. “Let’s get out on deck and go get some breakfast. I could eat a horse.”

He glanced out the porthole on the starboard side of the boat. He saw the riverboat pulling away from the Caruthersville dock next to the casino, en route to Memphis. Checking his watch he exclaimed, “My God, woman, it’s after 9:30. They close the galley at 10:00. We’ll starve.”

Scanning the scene through the porthole glass he watched as the river changed. Its surface began to seethe with a frothy spray.

Barney walked to the other side of the pilothouse high atop the *Bella Queen* and looked back toward the approaching *Lady Bird Jamison* and her tow. “We’re clear of the slack water, Ralph. Go to full throttle.” His mate eased the throttle forward and the twin 240-horsepower diesel engines increased rotation speed on their respective screws to accelerate the boat to cruising speed.

At 9:34:13 the leading edge of the P-waves from the fracture coursed through Caruthersville. It took Barney several seconds to become aware of the transformation in the river surface. One moment the river appeared smooth and light chocolate brown with swirls rising to show bumps and hummocks in the river bottom 40 feet below. Then, as if a sudden windstorm had struck, the surface of the water rippled and whipped into foam.

P-waves from the fracture moved up from the river bottom and spread into the water as low frequency, high-volume sound waves. They made the surface dance. Droplets jumped out of the water only to fall back like raindrops. Tiny wavelets appeared, forming steep-sided cups on the surface. Chop that moved in all directions appeared, as if by magic, on the water.

Grabbing the microphone, Barney radioed, “Buddy Joe, what’s happening to the river? The water down here just took on a life of its own.”

Five seconds later S-waves coursed across the river bottom. Unable to transmit seismic energy into water, a material with no shear-strength, the S-waves could only pummel the mud and sand of the riverbanks and bottom and then reflect back down into the earth.

Reflecting S-waves physically moved the interface between the river water and its banks and bottom back and forth and then up and down, like some giant shaking a shallow pan of water. A violent mixture of two- and four-foot waves raced from the banks across the surface of the river. At the same time the river bottom churned up and down, creating a plethora of violent swirls, eddies, and currents.

Buddy Joe’s voice yelled over the radio. “Barney, the river has gone mad. I see a giant chop growing, and we’re picking up some really humongous waves. They’re coming from all over, big time.”

A witch’s brew now surrounded the riverboat, barges and towboat. Barney heard Buddy Joe suck in a deep breath. “We must be having an earthquake. That’s the only thing that could be shaking up the riverbanks and bottom this bad.”

Barney looked around and thumbed the mike to report. “You’re right. I see trees and power poles in Caruthersville shaking around, but there ain’t no wind.”

Buddy Joe’s voice continued, “. . . my barges are doing a hellish amount of twisting. Barney, I’m reversing props and will try to hold in this position. I’m praying my tow holds together. This pitching is putting a terrible strain on the wires and ropes. Every barge wants to go its own way.”

“Buddy Joe, I know what you mean. The *Queen* is already tossing about in these waves, worse than a hurricane. Waves from off the bank are slamming us big-time. We’re only 30 yards from shore and it’s beating the hell out of us.”

Barney looked back toward the casino. “Damn. The dock has broken apart and the levee is settling. Now the casino boat is capsizing.”

“Barney, get away from shore as soon as you can and head for deeper water. Get away and hold there. I don’t know what will happen next,

but I don't think things will get better any time soon." Buddy Joe's voice sounded as strained as Barney felt.

"Roger that. Just hope I can get there without dunking some passengers or crew." He turned to his man in the wheel house. "Ralph, we have a General Alarm condition. Steer this ship to the middle of the river at flank speed. Bring it around to head upstream and hold. I don't want to move up or down the river at this time."

Barney hit the General Alarm button with the heel of his hand. The siren sounded throughout the ship as he picked up the intercom microphone and shouted. "Ladies and gentlemen, your attention please. This is not a drill. This is a General Alarm. Repeat, this is not a drill. All passengers immediately put on your life jackets and go to your lifeboat stations to await further orders. The land around us is having an earthquake and we don't know what its full effects will be to us on the river.

"I repeat. This is not a drill. This is a General Alarm. Put on your life jackets and go to your lifeboat stations immediately. Directions to your stations are on the inside of your stateroom door. Move quickly. Now." The warp of the siren echoed back to the ship from the riverbank.

Even as the Osceola dispatcher was telling Spencer, "You move on up north along the levee and keep a real close lookout. Where you find one water boil, you most often find another," thunder rumbled from the ground. The surface of the river to his right turned dull, no longer reflecting the sky and trees from the banks and hills across the water. The levee began to sway.

Spencer asked, "Dispatch, this is Spencer again. The levee's shaking, real hard. Does a boil make it do that?" Static obscured any answer.

The fracture in the crust passed nine miles west of Barfield. The leading edge of the S-wave reached the levee under Spencer eight seconds after the start of the rift.

"Osceola. Can you hear me?" Spencer's voice warbled as he yelled into the microphone.

The Barfield levee had been constructed in the same manner as all the levees along the banks of the Mississippi River from above Cairo, Illinois, to New Orleans. Barfield's levee just happened to be the closest to the epicenter of the earthquake, the first to be stricken. Composed

of the same Mississippi sand and mud that make up the farmlands of the former flood plain of the river, the Barfield levee loosened and crumbled from the shaking and sagged to its lowest stable level.

“Osceola. The levee’s starting to sink. Osceola.” Spencer shoved the accelerator to the floor and let out the clutch of the jeep, gathering speed along the levee road, bouncing in and out of the ruts.

Where water had saturated the soils of the levee, as evidenced by water boils that search out such weaknesses, the loosening and crumbling spread even faster. The levee became the consistency of quicksand. It did not sag. It flowed. Within 13 seconds the water pressure of the river punched through the earthen dam and gushed toward the land to the west.

Spencer drove like he had never driven before, screaming into the microphone. A crevasse opened behind him, then 100 feet in front of him. His jeep dropped into the quagmire to be swept along by an eight-foot deep wall of water from the river. The jeep tilted, then rolled. Water poured through the open passenger compartment.

Too late, Spencer grappled against the rushing waters to remove the seat belt that trapped him inside the tumbling vehicle.