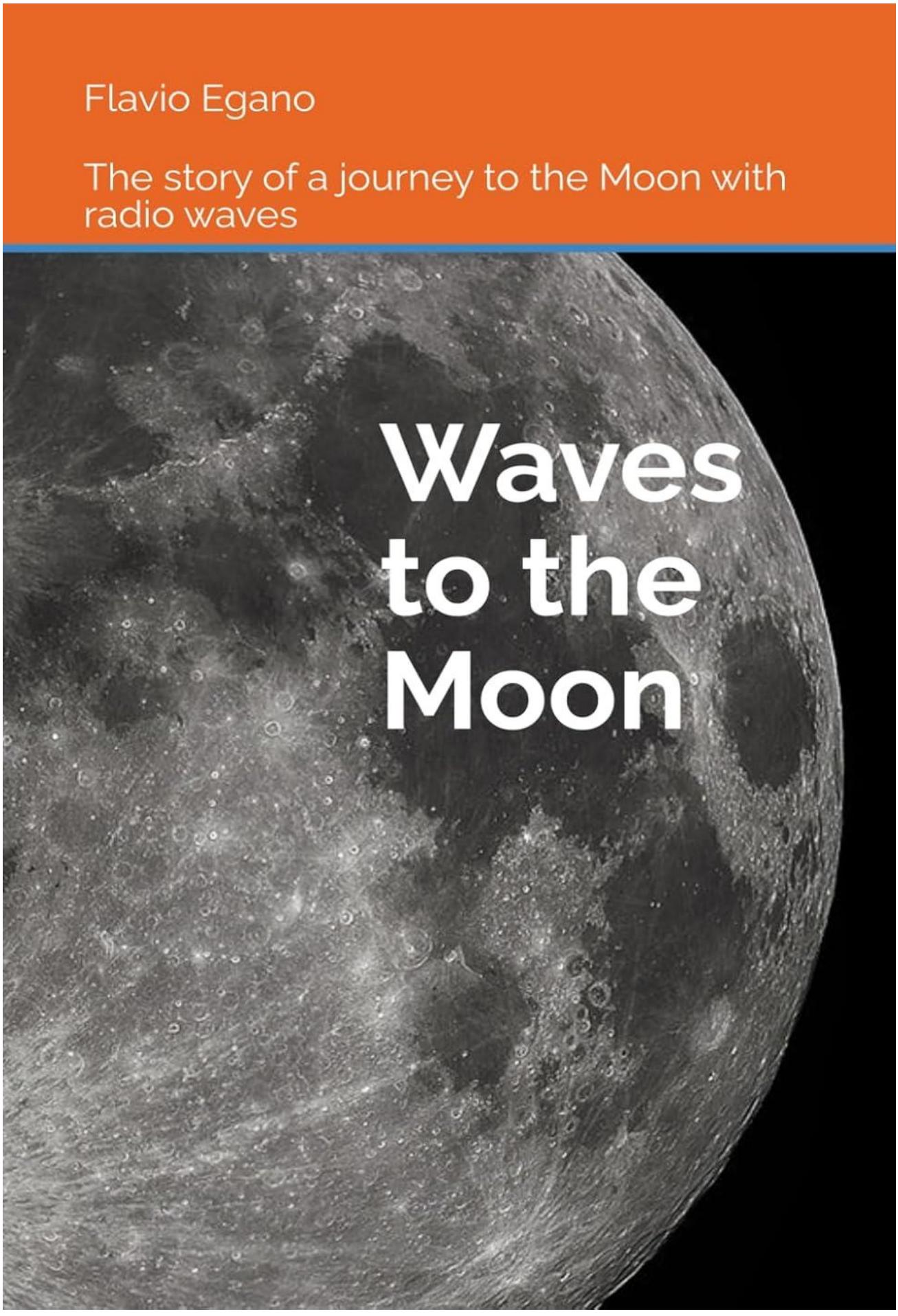
Flavio Egano
The story of a journey to the Moon with radio waves
Waves to the Moon

Waves to the Moon

Flavio Egano

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Excerpt from Waves to the Moon

Introduction

Vincent lay there, confined to a dreadful room at the asylum of Saint-Rémy. But in his mind, he saw something else: stars, the sky, the Moon. He painted what only he could see, transforming his prison into a world of colour and motion. He painted The Starry Night. I close my eyes, and I can go anywhere.

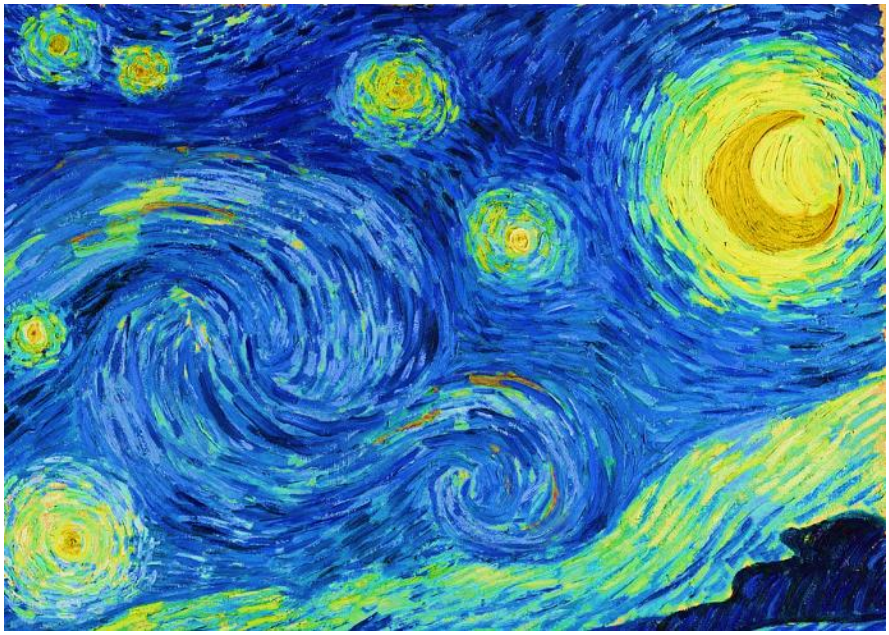
One day, I imagined going to the Moon. I had a radio station. Radio waves would carry me to the Moon, bouncing there and back. Difficult, but possible.

Amateur radio operators do it. That challenge was my journey to the Moon, and for that journey, I drew inspiration from the Apollo mission—without ever comparing myself to them.

I want to tell a story for everyone, in simple terms. As Einstein said, "If you can't explain it to your grandmother, you don't understand it well enough." This book is a tribute to the pioneers of amateur radio. Technology changes and evolves. The Moon does not.

" I will paint infinity…"

(Vincent van Gogh)



Excerpt from Waves to the Moon

The Voice of the River

Sunlight sifted through the acacia branches along the riverbank. The sound of cicadas filled the air and blended with the murmur of the flowing water. My brother and I walked ahead of Dad, along the beaten path that ran beside the river. He followed, carrying the rods on his shoulder, the wicker basket with the bait slung across his back.

When we reached the point where the river widened, we stopped. Dad was preparing his rod with confident gestures, showing us how to fly-fish. We watched, spellbound, as his large fingers carefully fixed the artificial flies to the line. He cast the bait, which landed on the water as lightly as insects. I copied the motion, torn between focus and impatience.

I remember the pale colour of the water, lit by the last rays of the sun, and the river breeze spreading the scent of privet through the air. I watched the line with the flies float and waited. Suddenly, a tug. The rod bent, the handle quivered in my palm. A trout. That's the magic of fishing.

"A sharp strike," Dad would say. I felt the strength of the fish fighting back, the tension in the line, and the rod almost snapped in my hands. My brother watched, holding his breath. Guided by instinct, I drew it slowly from the water. The silver reflections, the red spots on its skin told us it was a native trout—a prized one. The fresh scent of the fish drifting on the summer breeze. A familiar scent — comforting, reassuring. Dad smiled. My brother cheered, and I gripped the rod tightly in my hands. The trout lay on the grass. I wanted to hold it, but Dad shook his head. Then, with one hand, he took it, gently removed the barb from its mouth, and let it go. Because, like us, it was part of that river, of that world—and that's where it belonged. That's what Dad taught us.

On summer afternoons, when the water was calm, we took out an old canoe. We kept it moored along the riverbank, always in the same shelter we had built with branches. We'd climb aboard and push off, paddling upstream. It wasn't easy—the current pushed back, but that was what we liked. That river was our Mississippi, just like Tom Sawyer's—the book of our younger days.

Amid the river's silence, only the splash of our paddles could be heard. We'd battle upstream until we reached a wide bend. There, the water was shallower, and we'd stop to catch our breath and dive in. Then we'd carry on, stroke after stroke, climbing the river.

We had to pass a stretch we called the Devil's Meander—a name we'd given it after seeing a large water snake silently emerge from the bank and slip under the canoe. In that spot, the river narrowed and twisted through tight, sudden curves, between acacias bending over the water, as if trying to touch us. You had to keep your eyes open, careful not to get stuck or run aground on a sandbank hidden beneath the current. But once past the meanders, the river widened again and slowed. The water grew clear and calm and for a short while, we could paddle without tension. We passed under a small stone bridge, low and covered in green—a moment to catch our breath before the darkness.

Beyond that point, we knew the tunnel of the old hydroelectric plant awaited. That tunnel was the unknown, and the risk drew us in. It was long, dark, and so narrow that our paddles scraped against the walls.

We struggled forward, paddling against the current. When we emerged from the darkness, we found light again—and the joy of victory. The sun's rays lit the water, and we knew that somewhere nearby was Giovanni and his red Moto Guzzi, always leaning against the power station wall. He had the air of a lighthouse keeper—the quiet guardian of the plant: a low, wide building with red brick walls, worn by

time. From its old, barred windows came the deep, constant hum of turbines, driven by the river's current like a locomotive in motion.

Giovanni was a good man, full of old wisdom, with intelligent eyes and a face carved with deep lines. He was nearing retirement and knew every bend of the river. He'd worked there since he was a boy, just after the war, driving lorries loaded with sand dredged from the river. Later, he went abroad and worked in the Belgian coal mines.

Giovanni would retreat to his office, which looked like the cabin of a sailing boat. On the brick wall, a map of the river—not that he needed it. It hung above the bunk bed, a sign of the long night shifts in the plant. Beside the bed, a wooden crate turned upside down and used as a bedside table, holding a small transistor radio. On a shelf, a few old books; the biggest one, which had always intrigued me, was Moby Dick, the great white whale. The air smelled of oil from the old dynamo. Giovanni kept watch, inside and out. From his window, he could see the tunnel's mouth. When he spotted us, he'd come out and greet us with a smile. With his low, deep voice, he always said the same thing, shaking his head:

"Where do you think you'll hurt yourselves this time?" Then: "Remember, don't touch anything. No stopping near the dynamo. You know that area's off-limits." He always said it plainly, without drama—as if repeating a rule everyone knew but never forgot.

"All right, Giovanni," we'd reply—though we knew he'd still keep an eye on us from the window now and then, silently.

I remember him standing tall, in blue trousers and a chequered shirt with rolled-up sleeves. Then he'd crack a joke, always hiding a warning to be careful. He'd warn us about floods and the strength of the current. 'The river's alive,' he used to say. 'It changes. You have to listen to it.' He spoke with the quiet patience of someone long accustomed to waiting, teaching us to respect the water that seemed to speak to us—as if to say that not everything worth having is easy to reach. Going against the current is hard—often it's an adventure. But it's almost always worth it.

And his advice once saved our lives. It was a hot summer morning, and we were going up the tunnel in the canoe. At some point, we realised it was getting harder and harder to move forward; the current grew stronger and stronger. Giovanni had taught us to breathe with the river's pulse as he said—and that was its breath growing louder. A clear sign that the water level was rising fast. This happened suddenly, when they opened the great dam upstream. The canoe rose and the roof touched our heads; our breath grew short and our hearts pounded. Without hesitation, we turned back, though far from the entrance, and the current swept us into the light. That day, we truly learned to respect the river—and breathe with it.

All things flow, like a river fading into the distance, beyond the hills, towards the Moon.

But how do you reach the faraway, as a child? I found out sometime later, when Mum and Dad gave me something for Christmas that could cross invisible distances: a black walkie-talkie, with an aluminium antenna. An unexpected gift—a small radio. I switched it on by clicking the little wheel on the side. Under my thumb, a faint mechanical scrape, like fingers sliding along a cork fishing rod. Then I would carefully extend the telescopic antenna, the way Dad did before casting his line. A hiss—then a voice: it came and went as if carried by a river wave. It spoke in a strange language I couldn't understand, but I listened, stayed there. I tried to grasp its meaning, without knowing where it came from. And yet, there was something in that voice that lit my imagination. The mystery of a sound travelling through the air, coming from who knows where. With that radio I could go—beyond the river, beyond the countryside. From that small speaker came messages, codes, fragments of words.

Excerpt from Waves to the Moon

Back then, there were no mobile phones, and the home phone was a grey device, with a rotary dial and a bell. Today, having a landline at home would be redundant—but that sound fascinated me. I imagined distant worlds—they were the voices of Italian and European radio amateurs. That radio became my fellow traveller in adventure. I spent hours listening to those far-off signals, wondering who they were and where they came from. In my mind, I drew maps of the world and tried to reply, to reach them. The radio was small, but that didn't matter—it was enough. In the evenings, I'd search for voices in the static.

Over time, that little walkie-talkie gave way to a larger, more powerful set. I could finally speak, transmit my voice, and become part of that world. Radio was no longer just listening: it was a doorway to go beyond, to hear distant voices. Today, despite advancing technology and a globally connected world that shrinks distances, radio still exists. Its charm remains untouched, timeless. And yet, when I say I'm a radio amateur, people look at me oddly. Oh, one of those with the CB set. Radio hams. Hard to explain—like trying to grasp the wind. Among themselves, they call each other OM—Old Man: a name that says it all, a sense of belonging that evokes shared adventures.

I know an old man who lives in a stone house clinging to a cliff overlooking the Atlantic, on Ireland's west coast. In the distance, you can see a lighthouse, built on the most exposed headland. It's a place where the wind lashes the windows and tests the antenna's strength. Every morning, between the noise of the wind and the roar of the waves, he switches on his old valve radio and points the antenna to the horizon, searching for distant signals. He lives there like a hermit, seated in front of the radio in that house that faces the ocean—but he transmits. He knows that, like him, others are out there. Scattered in remote places. It's the passion for radio that drives them, always. I've never met him. But one winter night, I heard his voice. A faint signal, disturbed by background noise. He was calling: "CQ, this is Echo India Six…" That call was enough, and I answered. "Hello James, how are you? What's the ocean like today? I hear you faintly, but you're coming through." The reply came after a few seconds, broken by static. "The sea's calm, little wind… a light rain." I could see it in my mind the cliff and Ireland's green land. "Until next time, James. Take care." James replied straight away and simply said: "When you hear me, call."

Another signal, from much further away. "CQ, this is Victor Kilo Two…" It was a winter morning, just before dawn—the best time for distant connections. Turning the dial, I heard a call from the other side of the world: it came from Australia, New South Wales. A deep but strong voice that struck me. I answered immediately, and he told me about his towering antenna; he had space—lots of it. He lived alone, in the middle of the plains, growing wheat and keeping livestock. He added his farm was as big as a city. He spoke calmly, like someone used to vast spaces and living in silence. "I like living here, I'm attached to my land. The radio is enough for me to go elsewhere." But then, without my asking, he added: "Sometimes I wish someone were here. I lost my wife, and I don't know how much time I have left." I stayed silent. In my headphones, his voice reached me from afar: it carried a subtle echo, the tremble typical of signals that travel from the antipodes, across twenty thousand kilometres, over South Asia and the Indian Ocean. I thought no more needed to be said. Those invisible waves connect places and people. From one land to another, without borders. Time is different for us here. I turn the dial and hear a Japanese man having dinner, an Australian going to sleep. I hear the growl of distant storms, the rustle of the northern lights—the sounds of the Earth. When I sit in front of the radio, I feel part of something. I turn it on. And I will never be alone.

Excerpt from Waves to the Moon

Don't Count. Listen

I was studying for my amateur radio licence when I first learned about the ionosphere. It wasn't merely technical. It was something deeper—something no book could capture. That's when I began to understand where my waves would end up. It wasn't a matter of circuits, of antennas, of voice. It was a matter of sky. Of electricity. The Sun's energy.

It's something primal, invisible, and yet it's there, hanging above us. A thin layer of air, charged by the Sun. An invisible mirror that reflects signals. Like stones skipping over water, radio waves bounce and set off again. They travel. They cross the world. Without it, radio would be mute.

I remember the day of the exam. It was held in Verona, in the old Ministry of Posts building. That's what it was called back then. A stern building, with marble staircases and corridors that smelled of paper, of stamps, of forced silence. I carried a notebook filled with notes and hand-drawn sketches, yet my mind was clouded with confusion. A fog of dots and dashes. Morse code. I'd studied it the hard way. At night, with headphones on, listening to monotonous sounds that all seemed the same.

The exam was in two parts. First the theory: telecommunications, circuits, antennas, waves. A written test, like back in secondary school. I remember writing down everything I knew. Even the bits I didn't need—just in case I forgot something. The theory, all in all, went well.

Then came the part I feared most: telegraphy. Sitting in front of the key, my hands were sweating. I stared at it, that piece of metal, as if it might bite me. Around me, everyone else looked like experts. People with years of practice, I thought. Before we entered that big hall, there were those who flaunted their confidence, talking about dots and dashes as if they were navy telegraphers. One guy in a jacket and tie, with a flashy watch, was almost shouting, saying transmitting was easy, and the real difficulty was in receiving—though for him, even that seemed simple. He spoke with that tone of someone who knows it all, with the air of someone who needed to show how good he was. He was so convinced that he unsettled me more than the building itself.

I, on the other hand, was panicking. I felt clueless. I had to transmit a message, then receive one. That was the worst part: receiving. Listening and instantly recognising whether it was a dot or a dash, linking it to a letter, then to a word. All in real time. It was like translating a foreign language without a dictionary. I tried to count in my head, but I got lost. One dot, one dash, two dashes… then I lost track of the dots, got confused. The sounds overlapped. The letters blurred; everything went dark. When I left the room, I already knew how it had gone. Failed.

It can't end like this, I told myself. I had to find another way. I needed someone who really knew their stuff. I asked for help from a man everyone called "the Morse code guru". He was a former shipboard telegrapher who'd worked on merchant ships. What little hair he had left was white, complemented by a thick but neatly kept beard. His fingers were yellowed from too many cigarettes, and the smoke had hollowed out his voice, made it hoarse and deep. He told me he'd started smoking to pass the time in front of the ship's radio. Hours and hours of listening, endless shifts. And nights at sea, as everyone knows, are long. Too long.

He was a quiet man, but he knew Morse like few others. His eyes told the story of one who had seen much. I told him my story, about my troubles with Morse and my failure. He said nothing. His foot moved slightly, following a rhythm that seemed like the waves. Then, calmly, he took a cigarette from his pocket and lit it. It was an unfiltered one, one of those nasty ones, like my grandfather used to smoke.

Excerpt from Waves to the Moon

"You mustn't count," he said. "Telegraphy is like music. You have to feel the rhythm. Each sound, a word." "Want to know something?" he added, blowing out the smoke. "When I did the training to become a ship's wireless operator, I struggled at first too. I came to hate Morse. Those sounds haunted my mind even when I slept. I thought I heard them everywhere."

He paused, took a slow drag on his cigarette, then added: "One day, I was on the deck, listening to the sea. The wind layered over the sound of the waves. And that's when I understood: I had to listen to Morse in the same way—as you do the sea. "Then he looked at me, half smiling: "Just remember, don't count. Telegraphy is like music. You have to feel the rhythm. Each sound, a word." He murmured it while drawing deeply on his cigarette. He was right. Music was the way. They weren't isolated sounds anymore—they were rhythmic phrases. I had to stop decoding and start listening. I used audio cassettes that I played in the car. I replaced Paolo Conte's songs with the music of Morse code. I tortured my girlfriend's eardrums for weeks. I still wonder how she agreed to marry me.

I got back on that train to Verona. The old building was still there, with the same stairs, the same brown furnishings. But this time, something had changed.

There was another examiner, an older one. He had a stern look, the kind that doesn't offer discounts. He paced between the desks, scrutinising with the gaze of an old accountant. Only his footsteps could be heard, rhythmic like Morse code breaking the silence. He reminded me of my maths teacher, the one who used to check that no one was cheating. Once, he caught me with a scrap of paper full of formulas: he seized it with a sharp thump on the desk. That blow made me jolt in my seat, my heart leapt into my throat. I felt ashamed, like a thief caught in the act, and I braced for the worst — the confiscation of my test, punishment, humiliation outside the door. But no. The teacher said nothing. He took the shameful note and stapled it to the test, as one might nail evidence to its crime, and let me continue. No words, no sentence. Just a gesture. Everyone makes mistakes, he seemed to say. And that silence was my second chance. He was the same teacher who, one day, looked at me and, without raising his voice, said: "Think before you speak, and when you've thought, be silent."

I sat down at the key. Hands steady. Eyes closed for a moment. I no longer thought of dots and dashes. Not even of the new examiner. I thought only of the sounds. In the end, everything fell into place. I stopped counting and began to listen. A few weeks later, the postman rang. He had a registered letter in his hand: a yellow envelope from the Ministry. I tore it open, almost ripping the paper. Inside was my callsign: IK3XTV. Just five letters and a number—but inside them, there was everything. My journey had truly begun.

Credits