



The little Major Tom – Coming Home

Chapter 1 – Alone in Space

A shrill sound echoed through the space station. The alarm sirens! Little Major Tom awoke from a deep sleep and opened his eyes.

Next to the airlock, the red alarm light was flashing. As fast as he could, he crawled out of his sleeping bag, which was attached to the inside hull of the space station. With one foot, he pushed himself away from the hull and flew like an arrow through the sleep module.

"Alarm!" cried Plutichen, the robot cat, running along the side hull above him.

She had special magnetic feet, and rarely floated through the station.

"I'm on my way," Tom replied, getting ready to slow down and land.

With both his hands he tried to grab one of the handles on the monitor.

But in all the excitement, he'd pushed away from the hull too powerfully – so he promptly hit his nose on the hull of the space station.

"Ouch!"

"Are you seriously injured? Should I get the First Aid kit?" asked Plutichen.

"No. My nose is still attached," Tom answered, pulling himself up to the monitor and reaching for the microphone. "Ground station! This is Major Tom! What's happened?"

At almost exactly the same moment he heard a deep voice coming from the loudspeaker, saying: "Ground station! This is Major Tom! What's happened?"

"Since when has there ever been an echo on a space station?" asked Plutichen.

"That's not an echo, it's my father," explained little Major Tom. "He must be in the command module."

"I see," nodded the robot cat beneath him. In space, there was no up and no down like on Earth. All that mattered was the direction you looked in.

"Ground station to Major Tom," said a woman's voice. "We have an emergency."

"Got it," answered one high and one low voice.

"Our greenhouse on Mars has been badly damaged by a meteorite," the woman's voice explained.

"Major Tom has to fly to Mars immediately, and help our astronauts there. The vegetables from the greenhouse are essential for their survival. One of our new Mars spaceships has already been loaded with spare parts and is on its way to Space Camp 1. Major Tom, please prepare to leave."

"Understood," said two mouths simultaneously into two microphones.

"That applies only to one Major Tom, of course," the female voice said.

"Of course," confirmed the deep voice. "That would be far too dangerous."

"I thought as much," said Little Major Tom, sadly. "I'd have really liked to fly to Mars."

"You will one day," said Plutinchen, trying to comfort him.

At that moment, the door to the living module opened. But it wasn't Tom's father who came floating in, it was Stella, Tom's girlfriend. She lived aboard the space station because her parents worked with the space agency. Tom's mother worked there too. Tom and Stella had known each other ever since kindergarten.

"What's happened?" She asked, excitedly. "Do we have a leak? Have we been attacked by aliens? Is Auntie Frieda visiting?"

"No," Tom replied sadly. "A greenhouse has been damaged on Mars. My father's flying there to repair it."

"Without us?" asked Stella, her eyes wide with dismay.

"Yes, without us," Tom explained.

"So I guess we'll have to go back to Earth, then?" asked Stella, floating towards him.

"Looks like it," Tom sighed. "Looks like our happy days here on board are over."

"What a shame," said Stella, landing softly beside him. "I've had a really good time up here."

"Me too," Tom agreed. "I guess from now on, we're going to have to go to a proper school again."

"That's all we need," groaned Stella, who had been taught by her and Tom's parents on board Spacecamp 1. "Mathematics with Mr. Obermüller. Oh no!" The airlock opened again. With a serious expression on his face, Major Tom floated into the sleep module.

"Well, you heard what she said," the experienced astronaut said. "I have to go to Mars. The spaceship will be docking soon. So you're going to have to fend for yourselves for a while."

Little Tom and also Stella stared at him, their mouths open in astonishment.

"We don't have to go back to Earth?" asked the small, not quite so experienced astronaut.

"No," answered big Major Tom. "We've decided to place you in command of Space Camp 1. I've already spoken with Stella's parents."

"But why don't we have to go back?" Stella was astonished.

"Well, you've been here on board for quite some time. You know your way around a lot better than many astronauts who train on Earth. They'd have to spend a long time learning the ropes up here. So you two are in charge of the station while I'm on Mars. It won't last forever. And besides, you've got Plutinchen. The smartest robot cat in space!"

"Meow!" purred Plutinchen, her magnetic paws on the hull.

"Orbital!" Little Tom beamed with joy.

"Galactic!" laughed Stella. "No school!"

"Don't start celebrating too soon," smiled big Major Tom. "The lessons will continue, of course. Everything will remain just the way we agreed. In the morning you'll study, and in the afternoon you can explore the universe."

"Sure," Stella nodded.

"So I can trust you?" The astronaut asked.

"As always," answered little Tom. "We'll look after the station for you."

A woman's face appeared on the large monitor. It was little Tom's mother, who was busy down at Ground station.

"Hello Tom, hello Tom. Have you settled everything?" she asked with a smile.

"We sure have", answered big and small Tom in unison.

"I'm glad. I'm keeping my fingers crossed for both of you. The spaceship will be with you in a few moments. You'd better hurry, Tom."

"On my way," said the astronaut. "Take care, you two. I'll be back soon."

"Don't worry, we'll take care of the station," said little Tom, while big Tom turned round and floated through the airlock.

"Have a good flight!" said Tom's mother and gave a little wave. There was a little bump – the spaceship had docked at the station.

"We'll go and watch," said Tom. "Goodbye, Mama!"

"Bye!" said his mother, and disappeared from the monitor. Tom and Stella pushed themselves away and floated through the space station to find a suitable window.

"In the research module," Stella suggested.

The window was round like a porthole on a ship, and as big as a pizza. Their gaze fell on the Earth, which they were orbiting at an altitude of 400 kilometers.

"There it is," said Tom, pointing his finger at the spaceship, which looked like a giant ballpoint pen.

"I'd have liked to have flown, too," Stella said. "I bet it's incredibly fast."

"It sure is," said Tom. "And it's the latest model."

Again, they felt a little bump.

"It's leaving. That didn't take long. Your father must already be on board," said Stella.

"He is," confirmed Plutinchen. "I've just received the message."

In front of their eyes, the spaceship started to move, detaching itself from the station and disappearing from view. When they reached the opposite window, all they could see was the distant glow from its rocket engines.

"Completely detached from the Earth," Tom said softly.

"What do you mean?" Stella asked, puzzled.

"Well, because the space ship has left Earth orbit," Tom explained.

"The path that a planet takes is also called an orbit," added Plutinchen.

"The space ship is breaking free of Earth's gravity. You can only do that with really powerful engines," Tom continued. "If he switched off the engines now, the spaceship would fall back to Earth."

"That can't happen to us, because we're orbiting the Earth, and very quickly," said Stella.

"At an average speed of 28,000 kilometers per hour," explained Plutinchen.

"A hundred times faster than a racing car. We only need 90 minutes to circle the Earth once."

"We know that, Plutinchen," nodded Tom. "Our orbit around the Earth and the high speed we're travelling at are throwing us into space."

"But at the same time, Earth's gravity is preventing that from happening, so we're staying in orbit," Stella added. "Two forces that are working against each other, and canceling each other out. Like a swing carousel. You get pushed outwards on those too, but at the same time your seat holds you back. So we don't get thrown into space, nor do we get thrown back down to Earth."

"Completely weightless," said Tom. "Because the forces are canceling each other out, we don't weigh anything here on board."

"Can you still see the space ship?" Stella asked.

"No, it's already too far away," Tom replied. "How I wish I could have flown there with him. But..."