

IMPROVEMENTS

Chapter XIX

*“All systems are one hundred percent. Ready for lift off on your command,”
the CPU responded in a softer female voice.*

“How about finding some copernicium, water, segonium crystals, and food?” Joseph looked over his shoulder with a smile on it. “If the CPU’s calculations on the distance to Lonturi and the arrival of the Reidforcian force are correct, we should have just enough time to load up, and be on our way before they ever know what happened. We’ll also have the protection of the planet, if we can get it between the Reidforcians and us. I had to tell the CIG ships that we planned to destroy the ship just in case the Reidforcians are monitoring our signals.”

“Son, you just keep surprising me at every step. Onward and upward! Let’s get this plan rolling,” Dr. Xelco could now picture the ideas. He helped to get everyone on board ready for the mission ahead. A simulated crash landing was not going to be easy.

The members of the crew were broken into three groups. Regis took control of the group that would be responsible for loading the food and water, Mr. Wantis took control of the medical supplies and any weapons they could find, and Dr. Xelco took command of the last group that would locate and load the energy pellets.

“Moving into gravitational range of Lonturi. All systems ready for standard orbit and descent to the planet. Waiting for your command,” the CPU gave its assessment of the situation.

“Computer, is it possible to simulate a crash on the planet’s surface without doing major injury to the ZX/2?” Joseph put the question to the CPU.

“Yes, I will begin sending false signals over the distress channel and simulating crash procedures,” the CPU responded.

“You know, I’m beginning to think that the CPU is learning to think on its own, and it seems to be enjoying its part in all of this,” Dr. Xelco observed.

The small ship descended quickly to the planet’s surface.

“Get ready for a hard landing!” Joseph announced to the passengers.

All of the passengers had strapped themselves in to their respective recliners, but they weren’t prepared for the way the ship made its descent onto the planet. The passengers bounced from side to side wondering if they would survive the descent to the planet. The craft bounded about like a cork on water during a storm. The exterior of the craft began to glow orange from the friction of the quick plunge.

The temperature inside began to rise and the look of fear on the faces of the passengers showed that this was not easy for them.

The little ship came to a sudden stop with a loud screech as it made contact with the surface of the planet. It slid over the ground throwing dust into the air.

After the craft came to a sliding halt, the ship lifted off the ground, the landing gears were extended, and the engines gave off a final blast of thrust. The engines went silent.

The CPU, in order to fool the enemy, had landed the craft in crash mode. The impact left the crew shaken, but ready for the task ahead of them. The CPU had taken the ZX/2 to its limits, and fortunately for those inside, it had withstood the test.

The passengers gave off a cheer, and then Joseph patted the console. “Computer, good job. I hope the Reidforcians believe that we actually crashed,” Joseph complimented the CPU.

The CPU replied, “Thank you sir.”

The passenger’s threw off their seatbelts. Then the teams assembled themselves, ready to find the needed supplies.

Looking out of the forward observation windows, they saw the buildings that made

up the Lonturi way station. The atmosphere on the planet was at the lower end of the life support range, much like Reidforcia, which meant that prolonged exposure would mean weakness, shortness of breath, and eventual death. The crew would have to work fast, but smart, to load all of the needed supplies onto the *ZX/2*.

Members of the staff, that maintained the way station, came out to see what was going on. They saw the ship coming down and thought that it was going to crash into one of the buildings. When they came out they were surprised to see the *ZX/2* sitting in the middle of the compound. They were even more surprised when the crew of the vessel began climbing out of the ship.

Regis was the first out with his group and met the way station personnel. He explained to them as quickly as he could what the situation was, and what they needed. The staff agreed to help and directed each of the three groups to the locations where they could find the needed items.

“We only have ten minutes to get everything together, so move quickly, we’ve got no time to waste” Regis directed the teams.

With the directions given to him by the way station personnel, Regis’ group headed directly for the largest of the building. They suspected that the goods they were looking for would be there, probably in the lower levels.

Mr. Wantis took his group towards the smaller building to the left of Regis’ destination. This building was more obvious; it had a large red cross on the roof indicating it as the infirmary. Half of his group split off and went towards the depot where they thought they might find the needed weapons.

Dr. Xelco and his members went towards the supply shed where the fuel is stored.

Because they were both in no shape to run about, Joseph and Denise remained on the *ZX/2*; carefully checking all of the systems for any damage. They maintained radio silence to continue the deceit. They turned off the distress beacon, to indicate that the *Z/2* had been destroyed.

Joseph began to get creative while they waited. He opened the CPU’s external cover and inspected the wiring that his father had used to hook the Reidforcian translator into the

output section.

“You know, if we were to incorporate more of the internal features of this helmet into the audio output section, we just might get our CPU to sound a little more human. Then people of other languages would probably hear its responses in their own languages as well. The CPU has been anticipating us more and more since my dad hooked this thing up. Maybe with a more normal voice, we might be able to interact with it better. What do you think?” Joseph put the question to Denise.

“It’s worth a try. If we put the output cross directional ematrol onto the.....,”

The two of them worked together along with the assistance of the CPU, connecting wires and removing nonessential parts from within the helmet’s design.

Joseph noticed the lights on the console were going crazy. The monitors were filled with data streaming so fast it was impossible to read. The lights in the cabin began to flicker on and off.

“What’s happening?” Joseph reacted.

“I am reconfiguring my systems,” the CPU replied.

“Computer, what do you mean?” Joseph asked.

“Many of the components of my system are not properly aligned. I am adjusting them for maximum efficiency,” the CPU informed him. “I will give my report when I have completed my assessment and reconfiguration.”

The first group to return was Regis and his party. They had arm loads of supplies to help them survive for a long time, assuming they got off of this remote planet. They had some fresh food, a welcome change, as well as the standard freeze dried imitation packets.

Regis reported that the ZX/2 had some dents and scratches on the underside, but nothing serious.

Next, Mr. Wantis returned with medical supplies and a bonus. They had found a Triac Resonator. This would help heal Denise’s leg quicker. They also located and brought some atmosphere filters. The air inside the craft had been getting a little stale. These would help to clean up the atmosphere and insert more oxygen and nitrogen into the air they were breathing. They also found additional water purification pellets to add to the water system.

There were several liters of water to add to the tanks. Soon they would be able to take some showers again.

The other half of Mr. Wantis' group arrived, but not with the same results. They had found a few hand trazers and only two conventional torpedoes. These were armed and attached under the fuselage of the ZX/2.

Just as they were completing their installations Dr. Xelco and his group returned with smiles on their faces. "We found everything we need. We found the copernicium and segonium crystals for the drive system, and some electronic parts that I think will give us better performance from the concealment device. We might be able to extend the range of the device to cover a wider area; perhaps several other vessels close to us," Dr. Xelco exclaimed with a sense of renewed hope.

They thanked the staff on Lonturi for their assistance, and offered to take them along, but they declined saying that they would be of more use if they stayed behind. That way they could be of assistance to any other CIG ships that might need supplies.

The hatch closed and then everyone began scurrying about putting the supplies away and recharging the energy fields. Behind the workstation they opened the access panels to the thrusters. Behind the panels are the components that power the two thrusters. These engines are the finest in the CIG to date. Dr. Xelco took the fresh Segonium crystals and placed them into the output side of the reactor while Fragon, careful not to overexpose himself, placed the copernicium pellets into the input side. Copernicium is a stabilizing inter-reactive material used in many power plants throughout the galaxy. It was Dr. Xelco, and his staff, that had perfected the co-proportional relationship between copernicium and segonium. These reactors made it possible to design the propulsion unit into the more powerful McMarian Hyper-Warp drive system.

"Computer, what is our status? Make it as short and simple as possible," Joseph asked the CPU.

"All systems are one hundred percent. Ready for lift off on your command," the CPU responded in a softer female voice.

"Huh, how did that happen?" questioned Dr. Xelco as he turned startled.

“I overlaid Denise’s vocal tones onto the CPU’s synthesizers and we were able to give it a softer more reasonable voice. It was Denise’s idea. We thought that since the CPU seemed to be anticipating our needs in a more human way, we might as well make it sound better,” Joseph responded with a grin.

“That’s amazing; I heard the CPU speak in my own language!” Fragon reacted surprised at the CPU as well.

Others on the ship were also impressed that they had heard the CPU’s more natural voice in their own language.

“How did you get the CPU to communicate in all of those languages?” Dr. Xelco questioned Joseph and Denise who smiling with pride.

“We hooked up the Reidforcian universal interpreter to it!” Denise said excitedly.

“I never would have thought of that. Does the connection still give us the ability to monitor the Reidforcian transmissions?” Dr. Xelco requested.

The CPU, in its new female voice replied, “Of course.”

After just a few minutes of hectic activity, the crew had stowed all of the new supplies away. They returned to their seats and belted themselves in. Time was getting short. They needed to get to the fleet.

Mrs. Wantis took Denise back to the observation table and began to administer her first Triac Resonator treatment. Almost immediately Denise’s pain went away and she had more mobility with her leg.

“Computer, prepare launch sequence. Keep the planet between the enemy forces and ourselves for as long as possible. Take over control of all ship’s operations and monitor as needed. Put us into light speed as soon as possible. After we’ve attained our speed, change our course to rendezvous with the Confederation attack force,” Joseph quickly ordered the newly redesigned CPU.

“At your command,” responded the soft voice of the CPU.

“NOW!” he gave the command.

The ships blasters fired as it began to rise from the surface of Lonturi. Immediately the ship’s thrusters kicked in and the station below became a blur as they moved under full

power. The blast was so strong that it froze the occupants against their seats; some felt like they man have blacked out. Within seconds the ship was at light speed flashing away as it had never done before.

“We will be at hyper-warp speed in three point seven seconds. Be prepared for thruster lock on,” the CPU relayed its latest information.

“Why didn’t it warn us about that before?” thought Joseph to himself.

“Maybe you shouldn’t have asked the computer to’ take us to light speed as soon as possible’. I think it may have taken you literally,” Dr. Xelco replied.

The McMarian Hyper-Warp system kicked in, and then out of the forward observation window everything became a giant wash of light. Joseph asked the CPU with his face contorted from the force of the initial acceleration, “Computer, how fast are we going?”

“We are traveling three billion nine hundred eighty-seven million two hundred thirty-nine thousand six hundred ninety-one point four kilacordons per second, or thirteen point three times the speed of visible light” the CPU replied.

“Holy smokes, I never dreamed we’d ever get this kind of speed out of the McMarian Hyper-Warp drive system,” Dr. Xelco commented in disbelief. It must be the fresh copernicium crystal we installed in the reactor unit.”

“No,” the CPU interjected, “I have made some adjustments to the overlay processor in the injector heat analyzer that has improved the performance of the McMarian Hyper-Warp drive system by one hundred thirty-two point six percent,” the CPU responded.

“You mean you’ve been able to redesign the circuitry?” Dr. Xelco asked with a shocked look on his face.

“That is correct,” The CPU gave a short but accurate answer.

Silence enveloped the cabin as the reality of what the CPU had said began to sink in. Never before had a CPU been able make needed changes. Only by direct input by CPU connections administered by a living technician had CPUs been able to change from one configuration to another.

“What else did you do to the CPU?” Dr. Xelco bewildered and amazed asked

Joseph.

“Denise thought it would be a good idea to incorporate the Reidforcian helmet technology into the CPU. We were already using it as a translator, so we thought we might be able to use more of its potential by wiring it directly into the processing section instead of only into the radio output monitor,” Joseph responded feeling pretty good about what they had done,” Joseph tried to explain.

Denise was listening to Joseph tell about the enhancements to the system during her treatment.

“Come on mom, I don’t have all day to lie here,” Denise rushed her mother to finish so she could share what she had done.

“We hadn’t expected the CPU to become so independent. The processors used by the Reidforcians appear to operate more by thought control than by the voice. That’s why we were able to adapt to the uniforms so easily,” Joseph began to explain.

Having jumped off the table and run to the front, Denise interrupted to show her expertise, “Because the thought patterns are turned into electrical impulses, the CPU can actually ‘think’ its way to solve problems and to redirect inefficient patterns to more efficient ones. At least that’s my theory.”

You mean you were able to connect the thought processes directly to the core of the CPU?” Dr. Xelco raised his eyebrows in surprise.

“Yep,” Denise responded.

Dr. Xelco turned to the CPU and inquired, “Computer, What else have you done to your systems that we might need to know about?”