

TOM SWIFT
And The
Yesterday Machine

BY
Victor Appleton II

Made in The United States of America

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THE NEW TOM SWIFT INVENTION SERIES

Tom Swift And The Yesterday Machine

By Victor Appleton II

Just two years ago Tom Swift and his best friend, Bud Barclay, journeyed through a wormhole and nearly lost their lives investigating a black hole phenomena. After returning, Tom sent an unmanned reconnaissance probe back there to keep an eye on things.

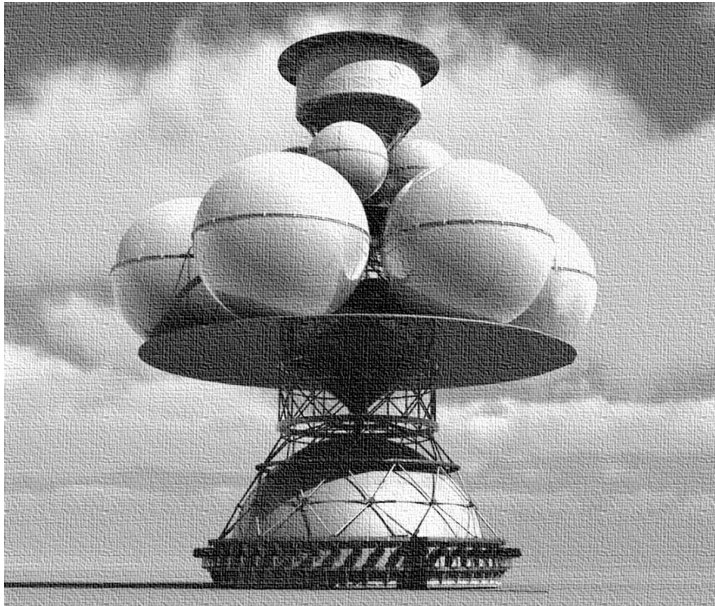
The time has come to replace it before it “dies.” But, when he does the first of the videos sent back reveal something so startling that Tom isn’t certain what to believe. The probe shows him something Tom knows had to be in the past.

What might it mean? The first thought he has is some sort of time fluctuation has occurred. He is hesitant to refer to it as “time travel.”

But, what if that is exactly what it is? Is it something that can be replicated and used on Earth. Or, can the source of the phenomena be taken from its location back to Earth? Tom can only imagine the possibilities and sets out testing in until a personal tragedy forces him to try something radical.

It isn’t for the weak at heart, and it isn’t something he wants to do, but he must.

This book is dedicated to Samuel Madden with his *Memoirs of the Twentieth Century* (1733), H.G.Wells, he of *The Chronic Argonauts* (1888) and *The Time Machine*, (1895), Jules Verne in his *An Ideal City*, Robert Heinlein with *By His Bootstraps* (1941), Stephen King in *11/22/63* (2011) and the many others who believed that time travel was possible, even if just in their own minds. Then again, isn’t that what dreams are for?



It was the largest ship to ever take off from planet Earth and the only one to be exclusively nuclear powered. PAGE 104

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Author's Note

Can it be? No, but yes, it is. Number fifteen in this series. Is it a milestone? Sure, of sorts. It certainly marks the first one published in 2015. I guess that counts for something.

I've mentioned before that I initially come up with a title—which has the story's invention in it—along with possible cover art before I type a single word. It has worked so far, but my backlog of titles is getting skimpier. After all, you can't always have Tom flying off into space, or diving deep under the oceans, or at one polar cap or the other, or in deepest Africa or any other jungle for that matter.

So, in the not too distant future I am toying with the idea of either having Tom create new lifeform (either a la *Frankenstein...* or not), or possibly discovering a way to miniaturize people and instruments to perform miracle surgery inside the human body (and ain't *that* shades of *Fantastic Voyage.*) How about jetpacks for the masses we've been promised for decades?

Ah, heck. I guess it's probably back to outer space for him next time!

Copies of this author's works both in and out of the Tom Swift world
may be found at Amazon.com
(6x9-inch softbound and Kindle editions)
and on BarnesAndNoble.com in NOOK editions.

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Tom Swift and the Yesterday Machine

FOREWORD

There are any number of things that science, scientists and other experts have told us are impossible. Fences were erected along side early rail lines to keep pedestrians from being splattered by exploding brain matter as the locomotive drew people along at more than twenty miles per hour!!!

Man would certainly NEVER be able to surpass the sound barrier and anyone who went into outer space was certain to come back hideously changed by the sun's radiation into monsters!!!

"We shall never find any particle that exists which is smaller than the atom."

"We can never learn the internal constitution of the stars!"

"Rocks do not and can not fall from the sky."

"We shall never achieve heavier-than-air flight!"

"Energy released by the atom will never be tamed for man to use."

"Flight at speeds exceeding that of light is impossible!"

And, many others. It seems like when someone gets close to a breakthrough the nay-sayers are standing, peeking over their shoulders ready to condemn or refute or refuse to believe in what is going on.

Now, we turn to the matter of time and the possibility of manipulating it, and all the paradoxes we are warned about by people who have no actual knowledge, but like to say no when people such as Tom Swift say, "Perhaps."

Victor Appleton II

CHAPTER 1 /

EXCITEMENT AND GREAT STUFF

TOM SWIFT, young inventor—son of Damon Swift, a slightly older inventor, and both of them rightly world famous—sat down with a huge grin across his face. Every square centimeter of his skin from the neck up was involved in the expression.

Tom was happy!

His wife, Bashalli, had called earlier from her work asking if they might have lunch. She said she had some exciting news about her work at the advertising agency and couldn't wait to share until they both got home after six.

With little to do that day, and his latest adventure behind him by more than two weeks, he couldn't refuse her. He never could, and most probably never would.

The two had met shortly after his eighteenth birthday, about five-and-a-half years earlier. Since that time to say they were *inseparable* would be a misuse of that word. Because, although their hearts were always close, often Tom's work and adventures had them separated by miles, oceans, and even the depths of outer space.

So, whenever he had the opportunity to give her a little more of his time and attention, he did it. There had been a time a younger Tom had allowed work to be an excuse for not taking time to be with her, and though she had been patient he knew how close he had come, on more than one occasion, to losing her.

Today, he swung by the advertising agency located in Shopton, the nearby town to Swift Enterprises in upstate New York, and whisked her off to a small Japanese restaurant about nine blocks away.

Lately, she had been wanting sushi. Nothing with raw fish but her tastes had lately turned to things like broiled eel hand roll, tomago—an egg omelet-based sushi—and miso soup. Lots and lots of each of them.

They sat down at the bar watching all the different types of food move past on the conveyor belt. As soon as something they wanted came within reach it was picked off, uncovered and eaten. With Tom being more of a salmon and tuna and shrimp fan, they rarely reached for the same small plates.

He managed to contain his curiosity until she finished her fifth pair of sushi pieces.

“Okay, Bash. Spill. What is the incredible news about you and the

agency?”

Covering her mouth with her left hand, she dislodged a piece of rice from between her front teeth with her fingernail before answering.

“Well, you know that I have been working there nearly four years, ever since I graduated from Art School?” When he nodded, she continued. “Over the past three or four months we have been having a little financial difficulty what with businesses around here suffering the same economic downturn that only Enterprises seems to be immune from.”

Tom shrugged. It was true, so far, that where business in most sectors of industry had taken a slight-to-serious hit with the recent move by the Government to raise interest rates, it seemed that any company having even the slightest connection with the airline industry was still seeing full business coming in. This definitely included Swift Enterprises!

“Well,” she said once his brief far-away look cleared, “I have been asked to select one employee to be asked to take a— it is a— oh... foo! I can’t remember what it is called. Something like fur-go?”

Tom felt a little blood drain from his face when he asked, “Do you mean furlough? As it not quite a layoff, but no salary?”

She nodded, but still looked happy. “Yes. That’s it. A furlough. Anyway, I have selected the one person I feel ought to be off work for about five or even six months, beginning in four months from this Monday.” She paused and searched his face to see if he had caught on. His blank and uncomfortable look told her he hadn’t.

“Silly. It is me!”

“But, you don’t seem too broken up over it, Bash. I’m afraid I’m still a little confused.”

“Well, that is because you do not know something that I do. And,” she leaned in to put her nose tip-to-tip with his, “it is because in about six months I am going to give you a little Swift. This will let me stay home for a while.”

“Little Swift?” His brow furrowed. “Huh!” His eyebrows now shot up. “You mean...?... As in...? Uhhhh...” he stammered not finding the right words.

“Yes, Tom, and you can say it with me... I’m pregnant!”

The inventor was dumbstruck. His tongue was now stuck to the roof of his very dry mouth. Finally, after gulping down half of the lemon-lime soda in front of him he got out, “But, how?”

It was her turn to look surprised. She whispered in his ear, “It is

not the time or the place for me to tell you how these things happen, but I will tell you that you were there when it did.” She leaned back and smiled.

Finally, it hit him and Tom nearly fell off the chair. He recovered quickly, kissed her and told her how much he loved her. It would have been a more perfect moment had not Bashalli seen two plates of broiled eel coming their way that she absolutely *had* to have!

Around her food, she told him, “I know we had talked about waiting until we were both about thirty, but it sort of just happened and I can’t say that I am displeased. Please tell me this is okay with you?” Her look was almost plaintive. He kissed her and told her it was truly fine.

Now, nearly two hours later the smile had not left Tom’s face. He was bursting to tell someone, but Bashalli insisted that they wait until her family and his could get together. She already had contacted both mothers to suggest a dinner at their house the following evening; that being Saturday so there could be no “work” excuses.

The door to the large office Tom and his father shared popped open and Tom’s best friend, Bud Barclay, sauntered into the room, grabbed the straight-back chair in front of Tom’s desk and swung it around backward. He sat, straddling the chair and looked at Tom.

“Heard any news?” he asked.

Tom almost choked. His mind raced. Surely, Bash wouldn't have blabbed her news to Tom’s sister, Sandy—who was also Bud’s wife—or would she?

“News,” he wheezed out.

“Yeah. About old *InvisiShip*, or whatever they’re calling that stealth ship we just fitted with your TruStealth gear. Has the Admiral called to tell you how their first sea tests went?”

Tom’s TruStealth system used special cameras and 3D projectors to visually mask a large object. In this first case it was a stealth Navy vessel. The idea was that while the shape and coatings on the ship made her invisible to RADAR, during daylight hours you could still physically see her reducing, with only naked eyes, her complete stealthiness to less than half of each day.

TruStealth took care of that. And, with one of the Navy’s first ever Littoral ships pulled out of mothballs and now fitted with the technology, Admiral Hopkins—head of the Atlantic Surface Fleet—had promised to let the Swifts know how the first trials went.

The report was due the next day. Tom told Bud about the date.

“Oh. So, I’m a day early.” He sighed. “Ahh, well I guess no news is better than some early, ‘We broke it,’ news. Huh?”

Nodding, Tom agreed.

“Any other news? Some new adventure coming up or are you now well stuck into the design on the second car to come out of the Swift MotorCar Company?”

Tom rubbed his jaw. “Nothing new heading our way, flyboy, but on the other side of that question, yes. I have been working to come up with a second model for the MotorCar Company to build. It’s been a little more than five weeks since the S-100 Coupe went on sale and we can’t keep up with orders. Dad finally authorized Charlie Van deGroot, the boss over there, to bring on a full second shift so we can double output. But my guess is that we are going to need to build that second assembly line before too long. At current output we will barely get to the end of the waiting list in the next eight months. Not to mention new orders from today on.”

“Not a bad position to be in, though,” Bud commented. “So, any ideas racing out of that brain of yours?”

Tom was happy to have the conversation turning away from any possible talk of Bashalli’s pregnancy. He pulled over a file folder and extracted a single page. On it was a bright red and very sleek sports car. He shoved it across the desk to his friend. “How about that?”

Bud’s jaw went slack. “But, that’s the *InvisiCoupe*! With more windows, but that’s the invisible car you tested the stealth stuff in.”

The continuous curve of the car from front bumper to back spoiler was so aerodynamic that the one they had previously built had so little drag that it barely touched the air around it. In that version, and because of all the computer gear necessary to test his invisibility system, the windows stopped just behind the back of the driver and passenger doors, with smaller glass panels taking about a forty-degree slope up from the front before becoming solid panels.

This almost photographic illustration showed the rear windows now back in place, with a back-swept door jamb, and the rest of the car was just as sleek as before.

“Yes, Bud. That is exactly what it is. Still two doors but with the full back seat for three and some room under the hatch in the back for things. Dad wants to do it as a limited edition with a Y-6 engine, special tires for added grip, and slightly limited speed up to two hundred. What’s your thought?”

Bud sat in silence for two minutes. “Well,” he said slowly, “is this going to have the same squirrelness as the first S-100 did? You ended up having to use a computer governor to keep the thing from

letting folks get themselves in trouble by accelerating too quickly.”

“We think we have that handled in this one. For starters, and you can’t really see it in the picture, but it will now be four inches wider with wider, low profile tires to add stability and traction. I told Charlie I think we need to pull back the acceleration a bit. I mean, zero to one hundred in eight-and-a-half seconds really is too much. I’m pushing more for that kind of speed in at least twelve seconds plus I intend to put in a special traction program to limit wheel spin if the accelerator is pushed down too far, too fast.”

They talked about the car for another half hour before Bud asked, “What’s this dinner at Tom and Bash’s thing about?”

“She wants to get all the extended family together. You and Sandy come over every few weeks or so, and we do the same to you, and mom and dad have been over about every two months, but her folks have only come twice this year and both times they asked a lot about mom and dad and you and Sandy, so we’re getting the whole gang together. It’ll be fun!”

After Bud left the office ten minutes later, Tom sat looking at the illustration. He knew it was a good design and would garner accolades from customers and reviewers, and many orders, but the events surrounding its initial creation still bothered him.

He had used the first, hand-built model as the test bed for his TruStealth system. Things had gone very well until terrorists, and a few gone-rogue FBI agents had stolen it, nearly killing Tom when they dumped him from a moving big rig before taking off with the car.

Weeks had gone past with Tom trying desperately to find a way to see the totally invisible car. And once he did and got back almost everything, he had succeeded in covering the first in what was a long line of ships with the technology.

But, at least four people had died. Bad guys, to be certain, but he hated when people died.

And, at those same evil hands both Bud and Sandy had been forced into potentially deadly accidents testing the other, first, Swift MotorCar Company model, the S-100 Coupe. It was strong testament to the little car that both practically walked away without more than a few scratches.

He put the picture back into the folder, slipped that into his desk drawer, and leaned back, the goofy smile of happiness coming back to his face.

He hadn’t managed to rid himself of it by the time he got home where he carefully took Bashalli in his arms and kissed her gently.

She pushed him away, put her hands on her hips and glared at him.

“Thomas Swift! You will not treat me like I am some piece of delicate porcelain, do you understand? I am not even showing yet and am in fine physical health. The doctors even told me I can continue to work out for at least four more months and probably even longer. You will harm neither me nor the baby if you give me a proper hug and kiss, but I can assure you that I will harm you if you do not!”

She couldn't manage to hold her mock anger expression and broke into laughter and smiles.

“Sorry, Bash. I've just never been in this position before. I promise I'll let you call the hugs and kisses shots from this point on.”

“Good! Then it shall be morning, noon—those days when we can be together—and night, with lots of concentration on the nights!”

They had a nice dinner with Bashalli serving them something she claimed was from her native Pakistan.

It smelled horrible and Tom only managed to get about half of his down.

She, on the other hand, wolfed hers down in record time. When she inquired if he didn't like the dish, he stammered something about being so overjoyed that his appetite was gone.

“But, *you* enjoyed it, didn't you?” he asked.

Wiping the last of the liquid from the plate with a piece of bread roll she nodded.

He grinned. “I guess I should've put two and two together with you suddenly having a craving for all that sushi. Was this another craving?”

She nodded but her face turned sad. “Oh, Tom. You didn't like it at all, did you?”

His grin flattened and he slowly shook his head. “Truthfully? Not a lot. Maybe it is my appetite, but I'm happy that you enjoyed it.”

“According to the doctor I won't be able to enjoy sushi after today. She says the fish might have mercury in it.” She sighed and came over to sit in his lap.

Her sadness was forgotten by the following morning when she and Tom straightened up their already neat and clean house and did the shopping for the big dinner.

Her parents and her older brother, Moshan, were first to arrive

bringing with them a casserole dish filled with a fragrant goat meat stew that Tom loved. Moshan took the inventor to one side for a quiet word.

“Our mother has noticed that Bashi has been moody lately. Have you two been having arguments over anything?”

“Can you keep a secret, Moshan?” The large man nodded, eyes narrowed. “Then I will tell you things have never been better in the Swift household, and you will all find out why a little later. Just don’t say anything.”

Moshan’s large right hand clasped Tom’s left shoulder and squeezed. “Of course!”

Bud and Sandy arrived in the same car as the senior Swifts. Anne was wearing a beautiful summer dress even though it was late in the autumn. The weather had been unusually warm.

They sat around making pleasant conversation for about twenty minutes before Bashalli stood and walked toward the kitchen door. Getting there she turned to face them. Something in her face told them to be quiet.

“Oh, you don’t have to stop talking because I am going into the kitchen. In fact, why don’t you all chat a little about the fact that Tom and I are going to have a baby?” With that she pushed through the door, a huge smile on her face, leaving Tom to face them all.

Silence reigned for nearly ten seconds before everyone started talking at once, and all of them aiming questions at Tom.

The questions and happy expressions carried over to the dinner table where Bashalli told them her due date and, “No, I would prefer to not know what the baby will be until the day I am holding it in my arms.”

Sandy put a pleased-for-Bashi smile on her face and was making as much of a fuss over the mother-to-be, but inwardly she was now sad. She and Bud had been trying for a baby for more than a year with no results. She sighed and wiped a tear from her face that everybody else though was one of joy for her best friend and sister-in-law.

As the two young women were doing the dishes an hour later, Bashalli turned to Sandy. “I know you, Sandra Swift-Barclay, and I know that you want a baby. Probably even more than I have ever wanted one. I will admit to you that this was not planned. I love you very much and don’t want you to be sad.”

Sandy sighed as a tear ran down her left cheek. “Oh, Bashi! I’m so sorry to be the fart in the hot tub over this!”

She saw the expression on Bashalli's face and they both broke into laughter.

"You're right, and when the time is right for us, Bud and I will have our chance. In the mean time you and Tom have to promise to let me see and take care of yours whenever you two want a few hours or a month or two off!"

Bashalli crossed her heart with her right index finger. "Promise!"

Back in the living room they found the men now sitting on one side of the room with the wives on the sofa. The men were discussing the latest sports teams and their chances at a championship.

The women were plotting what to buy for the baby right away and what needed to wait until the gender was known. Sandy sat down joining them.

Bashalli put her hands on her hips and made an exaggerated coughing sound.

"It is announcement time. You three..." and she pointed at the women, "will now cease planning what outfits he or she will wear for the first five years of life, while you over there..." and she swung her accusing finger to the men, "shall now stop gabbing about sports the way old Pakistani women natter on about their neighbors."

"But, my daughter," her mother said trying to look hurt but not succeeding, "how can you say what such women are like. You left Pakistan before you became one."

Bashi winked at Tom. "Because, my *mother*, you used to be one of those women!"

Everyone laughed, chairs were moved closer, and the conversation soon included everybody.

Monday morning Tom arrived at his underground office and lab in time to have Harlan Ames, Swift Enterprises' Chief of Security, drop by.

"Well, hey, Harlan. What in the world brings you down here this early?"

"More like *above* the world, Tom."

"I'm not sure I understand. What's going on?"

"We've lost all satellite communications between North America and the South Pacific an hour ago. Places like Australia, New Zealand, Singapore and even Loonau Island are off line. And, to make things very much worse, it seems that at least three of the newest, high-tech communications satellites have just been blown out of the sky!"

CHAPTER 2 /

THE SILENCED SKY

TOM WAS stunned. The announcement of the needless destruction of the three communications satellites providing all in and out voice and data with Loonau—*the former island base of operations for the Swift's rocket operations that first built the Outpost in Space and then kept up supply runs for several years—was gone.*

“How could that happen, Harlan?” he asked incredulously. “The only known hostile nation to us right now, in fact the only ones with a missile program sophisticated enough to hit three targets simultaneously, is North Korea and they had that nasty set-back late last year when their facility at Tonghae blew up.”

Ames shook his head. “Honestly, Tom, I have no idea. All that I've been told is that there were intermittent RADAR contacts with three to five fast-moving objects but not until they were over and past the tracking station on the Solomon Islands. Then, one-by-one the satellite signals blanked out. We do have one sighting by a Qantas pilot who was flying from Hawaii to Sydney who reported seeing a brilliant flash at very high altitude about the time of the Solomon's report.”

The inventor stood thinking for a moment before rushing from the office without another word.

He ran up several flights of stairs to ground level and then across an area of tarmac to the next building, Administration, and up the back stairs to the second floor. He pounded down the corridor ignoring the moving ride/walk belt in the middle in favor of the carpeted area to the right.

As he passed the outer office and the desk of his father's secretary, Munford Trent, he barely grunted a greeting.

“Not actually in, Tom,” the man who insisted on being addressed only by his last name, said as the door was swinging closed.

Looking a little ashamed of himself, Tom came back out.

“Sorry for the rush by, Trent,” he said and briefly explained the communications satellite problem. “I need to talk to dad as soon as possible. Where is he?”

“Your father is taking an emergency flight down to Washington regarding that very matter. He received a call...” and Trent looked down at his log, “...eighteen minutes ago. He might even have not taken off yet.”

Tom nodded and reached up to tap a small collar pin. It was a TeleVoc, his combination company identity badge and private communications pin that turned brainwaves and subtle jaw movements into recognizable speech at the recipient's end.

"Damon Swift," he silently subvocalized. There was a slight pinging noise as the computer acknowledged that Damon was within range.

"Yes, son? I'm about to take off for D.C. I suppose you've heard about the satellites?"

"Yes, and I wanted to talk to you about that."

There was a fifteen second pause and then, "I just notified the control tower I'm leaving the runway apron and heading back to the Barn. Meet me there in three minutes and you can come along. Actually, I would prefer to have you with me when I speak with Pete Quintana and the Vice President."

"Okay."

Tom genuinely liked U.S. Senator Peter Quintana, representing the state of New Mexico. The senator had been deeply involved in several of the adventures Tom and Damon had encountered over the past half dozen years.

On the other hand, the current Vice President was an obnoxious and pompous man from Maine who had achieved the position in the latest election when the initial candidate for the position had died about a week before the November poll date.

Picked more for his boyish good looks—to hopefully attract the female vote for his party—than his actual political knowledge or ability, his party had won the two highest offices in the land by a combined one electoral vote and only sixty-one thousand of the popular vote.

Tom made it to the Barn as his favorite small jet, the SE-11 Commuter, popularly known as The Toad, pulled up. Engines barely at idle the front of the canopy rose and a small three-step ladder dropped from the right side. He used only the top step as he climbed in. His harness was just clicking into place when the top came back down and Damon swung the jet around.

Within two minutes they were airborne and turning to the south for the one-hour flight to the nation's capitol.

As soon as he had been given clearance to switch to the long-range flight control center, Damon pushed the auto-pilot button and turned to face his son.

"What's on your mind regarding this... this *situation*?"

Tom shrugged. "I guess a couple things. First is anger that apparently someone has decided to destroy the satellites. Next comes a bit of relief that we no longer are allowed to use the rocket base down on Loonau. Since the government change down there and our being kicked out, it's a good thing Fearing could take up the slack."

He was talking about the former one-by-four mile stretch of low-lying scrub grass, sand and seagulls off the coast of Georgia the Swifts had leased for one hundred years to be their private base of operations for rockets and submersibles. Today it was a protected airspace covering an area extending ten miles around and above the island.

"Hmmm. I sense a third thing going through that brain of yours," Damon said favoring his son with a small grin.

"Yeah. I suppose so. I was also thinking that this could cause an international incident. If it's the North Koreans then they've been warned that any launch above fifty miles would be viewed as an act of war. I'd hate to see that happen."

"As would I. But, the initial information I received said the missiles or whatever they were appeared to be heading almost laterally, parallel to the equator and not traversing down from the aforementioned hostile nation."

They talked about what to expect once in the meeting, but neither could guess about it with any degree of certainty.

The downtown Washington airport, once named after a popular president but recently renamed as Potomac Regional, gave them instant permission to come in on an auxiliary runway. Evidently someone in a high enough position had phoned ahead.

Damon brought the jet to a halt in front of a building to the south of the main terminal. Waiting for them was a black limo with a driver Damon recognized. On at least five previous occasions involving visits to the White House or the government building directly behind it, the tall and powerful-looking black man had been his driver.

They exchanged handshakes and smiles before being whisked out a small gate and around to get onto the Washington Parkway and from there across the Potomac River and to a nondescript building near Lafayette Square. They parked on what was technically part of Pennsylvania Avenue but was closed to through traffic.

"I'll be here when you've finished," the driver promised as they walked to the front doors of the building.

As per usual, a standard issue "man in a black suit" sat at a desk

with a heavily-armed Marine in full dress uniform behind him. Damon gave him their names and he checked a screen on his computer showing him their latest photographs.

“Sign in and here are your badges,” he told them handing them each a credit card-sized badge.

Tom looked questioningly at his father. In the past the badges handed to them were once provided under contract from Swift Enterprises and were the same badges employees and visitors wore before Tom created the TeleVoc pins.

Damon shook his head, a move the man at the desk caught.

“Those are a test batch we’re trying from StantonTEC. They are trying to get the contract. Personally, I don’t like them. They have a small ID chip inside and we have to destroy them after they get turned in. One person, one use for only one day. What a waste!”

Damon agreed. This was something he would have to have his Purchasing department investigate.

The Marine came to salute arms positions before reaching to his right side to press a button. Almost silently, a door opened and he made a quarter turn to face it. “This way, Sirs!” he told them. As soon as they passed though, the door shut with barely a click.

Another Marine, also heavily armed with an automatic rifle, came to attention and saluted. His weapon was attached to a crossed harness Damon knew was a quick-release point from which the gun could be detached and fired in under one second. “If you gentlemen will come with me,” the Sergeant said. They following him to an elevator half-way down the hall. The Marine pressed the call button, held the door until they were inside and then reached around to press one of the five unmarked buttons on the panel.

“Enjoy the day,” he told them as the door slid shut.

Tom muttered, “Might if we knew what we are about to get into.”

They estimated they were traveling to the top floor. The elevator stopped, the door opened again and they found themselves in a huge room that covered almost half of the floor.

“Damon! Tom!” came the booming greeting from Pete Quintana.

“Senator Quintana,” Damon replied observing protocol in not addressing his long-time friend in a casual manner.

“Hello, Senator,” Tom added.

They all shook hands.

“Vice President Buckley will be here in five minutes,” he told the two Swifts. “In the mean time take a look at this.” He reached out

and a young brunette who had walked up to them handed him a thin folder. “Thank you, Marlee. Oh, and before you go, I’d like to introduce you to the two men most responsible for our great nation’s leading position in space and technology. Damon Swift... Tom Swift... this is Marlee—with a double E—Monroe, one of my top aides. Marlee, the Swifts!”

She warmly shook their hands and Tom noticed she held the grip a little longer than most people would.

“It is very much a pleasure, Mr. Swift and... umm, Mr. Swift,” she said looking at Tom.

“Damon and Tom,” Damon told her. “A pleasure on our part as well.”

She excused herself and left via the elevator. Damon opened the folder and glanced at the single page. He showed it to Tom. It was a map of Southeast Asia with a line drawn straight out from the top of Viet Nam heading east.

“Ah, here’s the little weasel now,” Pete said under his breath. He turned to his right and said in a louder tone, “Mr. Vice President. Nice to see you again.”

He introduced the Swifts, a formality as they had already met months earlier.

“Mr. Swift, President McKay has sent me here to speak to you about the incident of about three hours ago. I assume you have been briefed?” Tom and his father nodded but said nothing. “Fine! Let’s go to the back room and sit down. You can wait out in the other room,” he said nodding to Tom.

“He is an integral part of this all,” Pete Quintana said which only got a grunted response from the V.P.

Once in a small conference room and with coffee served by a young secretary, the politician got to the point.

“We have a very nasty surprise hiding, formerly that is, in a woodpile in the farthest out portion of the nation of China!” He looked at them to see if they had any questions. “You know where that is, I am sure.”

“Mr. Vice President,” Pete Quintana told him in a slightly exasperated voice, “the Swifts know where just about any tiny corner of the Earth is. They also could personally drive you around the Moon or even Mars pointing out the sights. Please spare them and geography lessons or we’ll never get to the bottom of this.”

The V.P. appeared slightly annoyed that he could not show off his own knowledge. He only found out where Viet Nam and southern

China were half an hour earlier.

“Forgive me. I have some facts and figures for you. Bear with this as I believe it is important.” He pulled a piece of paper from his inner jacket pocket, folded from top to bottom, and flattened it out.

“Ah, right. It seems that in the late nineteen-fifties there was a young man named, ummm, Ponticrief Lacrobat. He was a minor government official from France who had been sent to the northern portion of Viet Nam as the sub-Governor General for the areas that included Hanoi and Haiphong. As the locals were fighting to get the French out, he was captured but managed to escape, eventually meeting up with nearly four hundred of his former military guard.

“They headed north and eventually crossed the border into the southern tip of China, very close to the ocean.”

“Pardon my interruption, sir, but we were led to believe this had to do with the satellite downings,” Tom said. The scowl he received made him wish he had not spoken.

“Getting to all that, sonny. You have to let the adults talk now.” He gave the young inventor a sickly sweet smile before returning to read what was on his paper.

Damon reached over and squeezed his son’s hand, a signal to just sit and take whatever was coming. Tom moved his foot over to tap in into his father’s, his signal that he would behave.

“Okay. So, and anyway, Lacrobat only had about three hundred followers by the time they entered China. Most of the others had been killed by locals as they marched through or around small villages. Well, once inside China they halted at a tiny village where he addressed the village chief or mayor or whatever they have over there. The upshot is that he had this Chinaman send along a petition to allow the Frenchies to stay and have free roaming and access to a swatch of land running from the Viet Nam border, nearly fifteen miles inland, and up to near the Gulf of Tonkin. Three main cities in there called, hmmm, Qinshau—(he mispronounced it but spelled it for them)—with maybe four million people, Lianshou with another three hundred thousand, and finally Beihai with one-and-a-half million people.”

“Did the Chinese government agree to that?” Damon inquired.

“Yeah. They did, and practically right away. They must have figured the three hundred or so of the Frenchmen would be dead within weeks so they told them to have at it. Personally, I believe the Chinese were sick to the teeth with the area and wanted to stop having to do anything with it in case the whole Viet Nam thing went up in flames. And, as you probably know, it did and the Chinese

were warned by the rest of the world to keep out of things.”

“Only, they didn’t,” Senator Quintana said. “And, pardon my interrupting your talk, Mr. Vice President, but I was provided the same briefing you got and it doesn’t mention a number of important points regarding this matter. So, if I may...?”

After receiving a suspicious nod, he continued. “So, Viet Nam flares up. Lacrobat brokers a deal with the Chinese government. He has not only survived the ensuing couple of years, he has gathered another thousand or so former French military troops. His agreement is that the Chinese provide him weapons and ammunition that he will get to the North Vietnamese fighters in return for being made the governor of the area he has had free access to. They have nothing to lose figuring they can overrun the area and get rid of him when the time comes.”

He explained how as the war dragged on, the Chinese forgot about him. In fact, in their efforts to elevate the fighting the Chinese government was actively skirting the area and delivering everything from bullets to Russian MIG jets via the sea and straight into Haiphong on the coast.

After the cessation of hostilities in the 1970s the Chinese withdrew and seemed to forget all about the area Lacrobat now controlled.

“In all it covers about ten thousand square miles. About the area of Vermont. Lacrobat has been a successful governor for the area making money for himself as well as the peoples by growing many things any more southerly places can’t and selling them. The CIA estimates that area alone has a gross annual product of about one billion dollars. Lacrobat keeps about half of that and the rest goes to infrastructure and the people, making them some of the best-paid workers in nearly all of China. He is now an old man and seemingly one with a vendetta against the rest of the world.”

“So, now,” the Vice President interrupted, wanting to be more the center of attention, “this Lacrobat has billions and has started building his own military. Russia, bless their little hearts, have already sold him four submarines they were needing to get rid of. No money to run the things. He also has at least five destroyer-sized ships, perhaps fifty or more coastal patrol gun boats and thirty or so rebuilt PT boats circa World War II. Seems those were dumped on the island of Hainan back in nineteen-forty-five and abandoned. He heard about them, got them in floatable condition and took them back to a little coastal town of Guangxi and fixed up good as new.” He seemed to have run out of facts and looked lost.

Pete Quintana sighed and picked up the conversation again.

“The one thing we didn’t know he had was ground to air weaponry.” He looked to Damon and Tom.

It was Tom who spoke. “But, now he does?”

The senator nodded and sighed. “Intelligence told us all they had simple rocket propelled grenades with a one-mile range they mounted on their PT boats and a few German Rheinmetall BK-27 guns for their destroyers. Those are like Gatling guns in that they fire over a thousand rounds a minute. But, I think that satellite recon photo I showed you earlier says they have something more than that!”

Nobody said anything for fifteen seconds, so Tom asked, “What can we do? We don’t make or use weapons.”

Now the V.P. rallied. “Oh, goodness no, kid. What we want is for your dad here to build us replacement satellites, do it quick and do it cheap!”

Damon stood up. “Mr. Vice President. First, I respectfully ask that you refrain from referring to foreign nationals in derogatory terms, and to my son as ‘sonny’ or ‘kid,’ and then I will tell you that Tom is our fast-design and satellite expert. He would head any efforts in that arena. However, we will not take any part in your plans until such a point in time that you find it in your heart to provide us the kind of respect your office says we should give to its current holder. Senator?” he turned to the now-smirking Pete Quintana, “I wish to thank you for inviting us to come here today and hope that our limo and driver will not be told to strand us here when we go downstairs.”

He reached out and shook the rising politician’s hand. “Tom?”

The younger man stood and followed his father to the door barely pausing before opening the door and leaving the conference room. Behind them the Vice President was demanding their return.

They took the waiting elevator down and exited the building, neither stopping to remove and return their badges, and out to the waiting car.

“Leaving so soon, gentlemen?” the driver inquired.

“Yes. Back to the airport, please.”

As they turned around and drove off, neither could see Peter Quintana following an angry Vice President of the United States of America out the front door. So, they also missed the fact that Peter Quintana, stoic United States Senator from New Mexico and senior ranking member of the Senate, was nearly choking he was laughing so hard.

CHAPTER 3 /

SPA DAY OUT

TOM WAITED until they were back in the Toad before saying anything. “I don’t think that went particularly well. Sorry for speaking out of turn, Dad.”

Mr. Swift chuckled. “Nonsense, Son! You did just fine. That pompous horse’s hind end was being a jerk. Standard behavior from him I hear. I hope Pete gets him straightened out before the man makes an issue of his own obstinate stupidity!”

They returned to Enterprises and their shared office. Trent handed Damon a note as they walked by.

“Ah,” he said after reading the brief message. “Pete called to say the V.P. has been dressed down by the President who somehow heard about the meeting. Wonder how that happened?” He smiled. “Anyway, this says we’re on to build the replacements, you’re the boss, and all he needs is a bottom line and delivery schedule.”

Tom was relieved. He had been worrying all the way to the Washington airport and the flight home about any consequences of their early departure from the meeting.

“Who do we report to,” the younger man asked.

“Well, it doesn’t say in this note, but I think if we call Pete and ask, we will find out it is not going to be the Vice President. Shall we?”

They sat down in the conference area of the office where a small 3D Telejector mounted to the ceiling was turned on. In his office in Washington, the Senator’s own unit—minimally disguised as a cigar humidor on his desk—hummed. Peter Quintana tapped a button and the faces of Tom and Damon Swift appeared floating across the desk almost as if they were in the room.

Back at Enterprises, his head and upper body appeared floating over the conference table.

“Well, isn’t *this* totally expected,” the man in Washington told them. “Do you want me to hazard a guess what you want to talk about?” He grinned at them.

“Well, Senator, this is an inquiry as to what the heck went on after we departed and the time you sent this message,” Damon said waiving the note paper in the air.

Pete Quintana, a long-time friend, laughed. “It was priceless. Buckley started to turn purple as soon as you two headed for the

door. After it closed he sputtered and gulped air so hard I thought he was having a seizure or a heart attack, but then the language came out. Oh, my, if his old Catholic school nuns had heard that language I'm certain his knuckles would have been beaten into bloody lumps. By the time we got down to the ground floor you two were almost at the limo, but you may have heard a few of his shouts before the doors closed."

Tom answered, "All I heard was something like him ordering us to turn around and come back. Then, the driver closed the door and hopped in. Uhh, how bad did we make things?"

"Well, as the note your Trent took should have given you said, you have the contract and he is now out of the loop. Report to me for the time being. The President received a phone call about ten seconds after the V.P. stormed back into the building. From what I have since heard he got a personal call from President McKay a minute later. I was still outside enjoying myself when he came back out looking rather more pale than I've seen him before, and drove off."

The three spent nearly twenty minutes discussing the satellite situation. It turned out that a much older set of satellites were still up in orbit and they were being brought back on line to take up the slack.

"The issue is, as you will no doubt recall, Damon, those satellites will only be adequate to take on voice traffic. I'm afraid that data transmissions are out. Besides, they have very little fuel, if any, to be repositioned. And, the trans-Pacific cable between American Samoa and the South Pacific is sporadic at best. The cable's in fair to good shape, but the land equipment has gone to near ruin in the past thirty years."

"We'll do our best to get replacements built and up there in the next month or so," Tom promised.

Pete Quintana shook his head and chuckled. "*You* can do it in a month or so while everyone else has been contacting the folks here in D.C. offer to do it within the next two years! You Swifts are incredible."

As soon as the connection was cut, Tom turned to his father. "Is it okay to copy what they already have or do I need to start from scratch?"

"As far as I know those satellites are owned wholly by the United States and were only built on contract from a fully-paid-for design. I'll get Legal to have the designs delivered. And, I'll assume you intend to take them up in the *Challenger*?"

Tom nodded. His large, repelatron space ship had first carried him and a small crew to the Moon making them the first privately funded team to reach Earth's main satellite, and had been instrumental in nearly all of his trips into space.

“Yes. Although I’d love to give *Goliath* a test run, it isn’t going to be ready for a couple months. Ditto the new clamshell version of the saucer-shaped ship I’m experimenting with that won’t be ready for at least six weeks. Besides which, we need the hangar space *Challenger* provides.”

Goliath was going to be the largest planet-landing-capable ship ever constructed. Mostly a huge and very powerful repelatron under a platform of some two hundred-fifty feet across, it would eventually stand a little over twice as tall as it was wide and could lift the equivalent of a pair of original, fully fueled, Saturn V Apollo rockets as its full payload.

Tom was building it to use in the completion of his new space station taking shape even farther out than his Outpost in Space. While the High Space L-Evator running from the equator at the Galapagos Islands was fine for most of the early payload lifts, it was insufficient for some of the larger items of machinery, some weighing in at five times the L-Evator’s capacity.

At an earlier time, Tom used a base vehicle designed by his father, the *CosmoSoar*, but that vehicle had been decommissioned, recommissioned, reconfigured and recently decommissioned and scrapped having exceeded its serviceable life by a factor of three.

Now, *Goliath* would be the Swift’s heavy lifting platform, and one designed from the ground up to be fully reusable and nearly completely green like Tom’s *Challenger*.

The designs for the communications satellites were delivered by armored truck a couple days later. When Tom saw what had been sent he nearly laughed. A great deal of time and effort had been wasted when all that came with the trio of armed guards was a schematic of the titanium framework for the electronics along with the positioning rocket system.

Absolutely nothing regarding the electronics had been provided.

Tom went upstairs to speak with Jackson Rimmer, the chief Legal counsel for the company.

“That isn’t what we were told would be coming, Tom,” the lawyer exclaimed. He picked up his phone, dialed a number and was soon speaking with someone whose voice nearly blasted from the handset.

“If you will cease the yelling for my using this private line, then I

will tell you just who the hell I think I am. This is Jackson Rimmer of Swift Enterprises and the man you spoke with on Tuesday. We received the package you sent and I am calling to tell you that it is missing great chunks of information.”

He listened a moment to the now more normal tone of voice. He explained what they had received and inquired why the electronics, the very heart of the satellites, had not been provided. He rolled his eyes as he listened.

“I can only tell you this, sir. The next call you receive on this line will be from someone from the U.S. Government who will suggest that your company might be in grave danger of losing out on any further Governmental contracts should you continue to take the, ‘It’s ours and you can’t have it,’ attitude. Good-bye!”

He smiled at Tom before referring to his electronic organizer and dialing a new number.

“Yes. Hello. This is Jackson Rimmer, Counsel for Swift Enterprises. I am calling to speak with Mr. Gerussi. Please tell him it is in regard to *the satellites*. Thank you.” He placed a hand over the mouthpiece. “Just going to let the Government Purchasing Office manager know about the reticence on the part of Duggand Space Systems to play nice— Yes. Brian? It’s Jackson Rimmer.”

He then outlined what they had and had not received and also his brief and unsatisfactory call to the head of the satellite development company.

“Thanks. I’ll be most appreciative if you can let him know that. I’ll wait for him to call. Good-bye, Brian.”

After setting the receiver back down, the lawyer turned to Tom. “Lawrence Duggand is about to find out that if folks in our nation’s capital tell you to provide something, you either do, or you don’t.”

Tom was slightly confused. “Don’t what?”

“Don’t get any more lucrative contracts and don’t make any more money from the taxpayers and quite possibly don’t have a viable company. I actually hate to put that sort of pressure on other businesses, but Swift Enterprises lives up to certain standards and I personally insist the same from others.”

Tom nodded and rose. “Please let me know the outcome. If they want to play hardball, I will need to get started immediately on a new design.”

“How bad would that be?”

He thought a moment. “It could put us back by up to several months but at least three weeks. The nice thing is that we already

have produced a lot of the components for similar communications satellites for the U.K. and for a few other nations. It's a matter of how to put it all together and do the security and data scrambling stuff."

It was Thursday and there were still a few hours in the work day, but Tom felt he needed to vent to a friendly face, so he called Bud.

"Yeah, no problem, skipper. I just got back from a test flight in the new turboprop version of the *Pigeon* they're trying to perfect at the Construction Company. See you in ten."

The newest *Pigeon*—not officially named yet but would probably be called the *TurboPigeon*—was the forthcoming fourth generation of the small private plane Damon Swift designed nearly eighteen years earlier. The plane had grown from a single engine with two seats to a two-engine version seating four, and then to one resembling Tom's Se-11 Toad but with twin propellers that could handle six or eight people. Now, the new one was to be a sleek underwing edition with two small but powerful jet-turbine-driven three blade props. It would be a speedy four-seat plane with about a two thousand mile range.

Bud arrived at Tom's underground office and lab right on time. "You didn't say on the phone where you'd be so I buzzed Trent and he told me I'd find you here."

Tom turned slightly red. "Sorry, Bud. I forgot to mention my location. But, why didn't you just TeleVoc me?"

Now the flyer blushed. "Well, the truth is I forgot. So, besides us both becoming senile and forgetful, what's up?"

"Have a seat. I have quite the tale to tell you."

For the next half hour Tom told his brother-in-law everything that had happened from the satellite shoot down to the Washington trip and even to the project to replace things and the current stumbling blocks.

"What I don't get is why this French guy shot things down. It doesn't make any sense. It isn't like he's making himself invisible or anything."

With a shrug, Tom replied, "I don't think anybody knows what he wants, why he did this, or what he has up his sleeve. All I have is the marching order to replace three high-tech satellites in as little time as possible."

"This can't completely cut people off, though. I mean, there are many other ways to get messages around the world. Right?"

"Right, but this happens to be the best, fastest, and most

modern.”

“Okay. So, what can I do to help you right now?”

Tom slid a pile of papers over to Bud on the other side of the desk.

“Those,” he explained pointing to the inch-tall stack, “are all facts and figures from the telecommunications industry that relate to world-wide transmission of data. Every satellite still capable and even older copper- and fiber-based systems are detailed. While I enter some of the data, it would be great to have you reading it off and checking a few things I read back to you. Game?”

“You bet! Tell me where to start and then bear with me as I stumble around a little.”

Inside of five minutes Tom explained the categories of figures he needed and the order in which Bud should relate them. The process of reading and entering began and was only called a halt to when Tom looked at his watch and announced that it was time to go home.

“Bash expects me in ten minutes and I have the feeling Sandy wanted you home half an hour ago.”

Bud smiled. “Yeah. No matter when I get there she always tells me she had hoped I be home half an hour earlier. So, same time tomorrow?” Tom nodded.

After Bud left Tom called home only to find that Bashalli wasn't there. He tried her cell phone and only received a quick text message on his phone seconds later: **Mtg. ILY. B**

He texted her back knowing now that she was in a meeting.

Great. Have to work an extra hour. See you at home around 6:30. ILY, 2! T

He dug back into what had already been entered trying to spot patterns in point-to-point communications as well as times of day when traffic was heaviest.

As far as his partial data could tell him, U.S. to Australia and U.S. to India transmissions made up more than sixty percent of the daily traffic through the destroyed satellites. It made him wonder, briefly, how all the call centers located in various parts of India, were coping. Probably fairly well as their workloads would be greatly reduced, but at the probable cost of very angry customers in North America!

Before he left he performed a few calculation to see what sort of loads his available circuits might handle. The good news was that each one could handle about ten percent of the normal and seven

percent of the busiest traffic times.

The bad news was that the capacity for both mounting to and the electrical capacity of the current solar panels on the older satellites, could only support eight of his current modules.

It wasn't great but it wasn't insurmountable news.

He was about to start getting ready to go home when he received a second, slightly longer text from Bashalli.

Stuck in mtg. Yuck. 7:30 at best. IYL, Lots! B.

He sent her back: **OK. Take deep breath. I'll make dinner, T**

This gave him a reprieve of nearly another hour, so he sat back down and started to look over the electronic schematic for his Receiver/Transmitter circuits.

A check on an electronics parts website gave him some unexpected good news. An entirely compatible but new generation of multiplexing chip, basically a way to keep separate data lines just that, separate, could provide a twenty percent increase in the total number of simultaneous connections at an increase of only seven percent in power requirements over his older circuitry.

This would still mean either reducing power elsewhere or increasing the capacity of the solar panels even though it reduced the potential number of modules to the point they might be all packed into the existing structure.

He made a note to inquire about the original schematics for those satellites. His hope was to locate either unused space or find that the space his somewhat sketchy information held was off and that the satellites were actually larger outside, or smaller inside.

The other idea was to bring the really old ones down and refit them with larger panels, but he hoped to be able to do all the work up in orbit.

But, all that would need to wait until Monday. He had used more than his extra hour so he raced from the office and headed home.

When he arrived, Bashalli was already there and greeted Tom with her traditional hug and kisses before letting him go and standing in front of him, looking very pleased with herself. First, she wiggled a bag with containers of Chinese food in it at him.

"You picked up dinner?" he asked. He was prepared to make them omelets, but her idea sounded better.

"I texted the restaurant while my clients were in the bathroom and picked it up on the way home. But, that is not important. You will not guess in a million years what your sister and I are going to

do to treat ourselves on Saturday,” she told him. “That’s tomorrow, you know.”

“Are you two going to that brand new day spa downtown?” he asked. Immediately he wished he could take it back and feign ignorance as her face fell and she looked betrayed.

“H-how-how did you know?” she stammered.

He gathered her back in his arms and kissed the top of her head. “My sister ratted you two out to Bud and he told me. I don’t think she told him not to. Sorry that I spoiled your surprise.”

She let him go and stepped back, her smile returning. “That is okay. I only wanted to surprise you because you have been after me for months to ‘Go get a manicure, Bash,’ or ‘You enjoyed that massage we had in Ireland, why not get one here?’ and so when we both received an announcement in the mail the day before yesterday telling us that the first fifty people to book get fifty percent off, we jumped at it. And after today I need this!”

She stepped over to the entry table and picked up an envelope, handing it to him.

Inside on a single piece of paper was the announcement of the Moore Day Spa, and the offer Bashalli mentioned. As he read the three paragraphs and looked at the pictures—none of it looking very professional—something in his mind advised caution, but her eagerness put that out of his head.

“We are having facials, manicure/pedicures and then massages beginning at nine in the morning. I will be home, a refreshed and brand new woman for you by three after, of course, we have lunch.”

“And parade around downtown showing off your fresh faces and bright nails, huh?” he teased her.

“Certainly! And perhaps some new makeup as well.”

They parted ways at the driveway the following morning. Tom was heading back to Enterprises to see if the missing designs for the satellites were being delivered—and to do some work on his own designs in case they were not—while Bashi climbed into Sandy’s car when his sister roared up to the sidewalk out front.

At work he went straight to the shared office and sat down to check his emails. Jackson Rimmer had promised to leave him a message one way or the other.

It turned out to be “the other.” He read the on-screen message:

Tom,

Duggand is digging in his heels saying that they own the designs

and only have leased them to the U.S. Government. His lead lawyer sent a message directly to me advising that the matter is out of his hands and L. Duggand is taking full responsibility.

“It” is about to hit the fan!

The Government stance is that all their current contracts are going into a hold status as of Monday morning. All payments to be stopped.

Not sure what to advise you other than to get started on your own design. We’ll hammer out repayments if and when it comes to it.

Jackson

The inventor was disappointed but not completely surprised. Lawrence Duggand had a reputation for stubbornness in business. It had helped and hurt his company over the years, and now it was definitely going to damage their reputation and ongoing relationship with the U.S. Government. Tom wasn’t entirely certain but he believed there were at least three large contracts outstanding that would now be in jeopardy.

He could only shake his head and wonder what had gotten into the man.

With nothing to be done about it, at least not at his level, Tom turned his monitor on and started calling up a series of files and designs. As he sat studying them a thought hit him. He picked up his phone and called his father’s private number at home.

“This is Damon, and, oh, I see it’s your number, Son. And, from work. So, what can a man on just his first cup of coffee do for you?”

“Hi, Dad.” He told about the lack of cooperation on the satellite designs. “I was wondering about something. Rather than our starting from scratch, do you think anyone would mind if we went out and pulled in a couple of the older satellites, from areas not over water, brought them back here and repurposed them with new electronics?”

There was a moment of quiet followed by a chuckle.

“Leave it to you to come up with something like that, Tom. I say it sounds like a wonderful idea. Not only does it pull, oh, three to five decrepit heaps of space junk out of the way but it can get the destroyed satellites replaced in record time. We might not have the schematics from Duggand, but we do have our own design from our world-wide network.”

“Right. I can reorganize things, do some miniaturization with

modern components, and get those back in orbit in maybe three weeks!” the young inventor stated, now grinning from ear to ear.

“Plan to head up Monday afternoon after I make a few calls. Official, business-hours calls.”

Tom hung up much happier than before he made the call.

For a couple hours he spent time pulling out the SwiftNetSat plans. The system consisted of eleven satellites spaced over the equator at about thirty degree points. The twelfth position was the Outpost in Space. In all, these satellites could reach better than ninety-two percent of the populated globe and provided the Swifts and all their companies and locations with uninterrupted communications capabilities.

While not sufficient to replace the current lost satellites—they did not have that wide a bandwidth for data—they were quite tiny coming in at about three feet across each.

Tom surmised that by both upgrading and multiplying the amount of channels and power for transmissions—possible by clustering multiple units into a single package—he might populate the frames of the older satellites with enough units to replace their lost capacity.

It would not be the perfect solution, nor the permanent one, but with the vital need to return communications to that part of the world via the most direct route—and not around the world the other way which would unduly tax that line of communication—it was going to be the quickest.

As he worked he lost track of time. It wasn’t until nearly one before he was jolted out of his thought by the soft sitar music he used as his ring tone for calls from Bashalli.

“Tom Swift,” he answered not recognizing the caller ID.

“Mr. Swift? Oh, god. Oh, Mr. Swift. This is Elise at the Moore Day Spa. Oh, gee. I don’t know what to do. I’ve called the police and all, but—”

“But, what?” Tom demanded the blood draining from his face.

“They came in and sprayed me with something that knocked me out. Three huge men. When I woke up I had a really bad headache, and when I staggered into the back... Oh, golly! They’re gone! Your wife and her blonde friend *were just not there!*”

CHAPTER 4 /

PRECIOUS RECOVERY

TOM AND BUD were frantic on learning their wives—and Tom’s forthcoming baby—had been kidnapped. Bud, whose house was closer to Enterprises than downtown, raced over from his house while Tom contacted Harlan Ames to get his team going.

As the flyer swung into Tom’s silver convertible and they headed for the main gate, he asked, “Do we know anything?”

Tom shook his head as they left the gate, turned to the right and raced at top speed toward Shopton.

“Not a thing other than what little the woman at the spa could tell me. Three men, all of the extra-large variety, barged into the front reception area, sprayed some sort of knock-out gas and when the ladies woke up, something like just five minutes later, Bash and Sandy were not there!”

They drove in silence for a few minutes. Tom’s TeleVoc beeped inside his head. He reached up and tapped the device magnetically attached under his collar and subvocalized, “Answer.”

“Tom, it’s Harlan. You are cleared for top speed to downtown and the salon. You will be picking up a police escort as you get to the city limits. They’re getting the way cleared, and I’m also on my way.”

“Thanks, Harlan, and I am just coming up on my escort. They’re taking off to stay in front of me. Any other word? Bud and I are frantic.”

“I can guess that,” came the reply, “but we have nothing. There are surveillance cameras in the ceiling down there, but not in any of the treatment rooms. By the time you arrive the police ought to have the camera footage ready to view. If you can wait an extra five minutes I’d like to be in on that.”

Tom sighed. “Sure. We’ll wait, but just five.” He tapped the TeleVoc again and the call disconnected.

After telling Bud of the lack of any news he focused on his driving. They were passing intersections at what might be considered an alarming rate of speed, but one of Tom’s great skills, other than piloting, was in driving. On several occasions that skill had saved his life.

They came to a screeching halt next to a semi-circle of police cars at the entrance of the day spa. Both young men leapt out and ran to

the door where the officer recognized them and waved them in. Another officer was dusting the door for fingerprints.

Chief Slater was standing there, waiting for them.

“Okay, now before you hit me with a flurry of questions, we know almost nothing more than the young woman over there, the one who called Tom, could tell you. And, with Harlan coming I’d rather we all just stayed out here for a few before we go to the manager’s office to view the video.”

Tom and Bud’s looks of dismay tugged at his heart, so he told them, “At least I can report there is no apparent sign of a struggle or of any physical attack. Our best guess right now is the same gas used to knock out the staff was used back there and the ladies were carried out. They isn’t even any sign of things getting disrupted on the shelves out here, so they must have been picked up and carried.”

Tom had a sudden vision of Bashalli being tossed over one of the thug’s shoulders right on her belly. He winced and the Chief asked what was the matter.

Tom told him, and the Chief patted him on the shoulder. “It really doesn’t look like these men were in a huge hurry, so my guess is they were not heavy-handed. But, we’ll know once we see that video... oh, and there’s Harlan.”

When the Security man entered Chief Slater simply turned and made a “follow me” motion. The four men walked briskly through a door, across what was apparently a relaxation and waiting room with a central fountain, and through some curtains to a hallway. They turned to the right and soon walked into the office.

The manager, a plump woman, was sitting there in tears.

“I try and try to make this a good and safe place, and then this happens!” She turned her face to Tom. “Oh, Mister Swift. I don’t know what to say.”

Tom was confused. “Uh, isn’t this something like your first day? My wife and sister both received cards in the mail making it sound like a grand opening sale.”

The manager looked confused. She sniffled, then said, “That is very odd. We have been here for more than five months. The other day we received a letter with cash stating that we were to put it toward the two ladies and whatever treatments they wanted. We weren’t to say anything, just give them at least half price. Oh, no. What have we done?”

Tom nodded and sighed. “Unless someone warned you there was no way to foresee this. Can we please see the video now?”

She turned to her desk and tapped the ENTER key on her keyboard. The monitor on her desk showed them the front room of the spa.

“The system takes a frame every half second, but it is high-definition and all digital,” she explained. “I’ve gone back to a point about two minutes before those horrible men entered. See?” She pointed at the picture where the two desk attendants seemed to move in a jerky way. Then, a shadow outside in the bright sunlight heralded the arrival of a large vehicle, possibly a van from the amount of shadow it cast up to the glass doors.

Ten seconds later one man shoved the door open spraying something from a silver tank as he walked up to the desk. Within a second or two at most, the two women slumped onto the desk, obviously unconscious. He walked calmly back to the door and motioned his compatriots. The other two came in wearing small gas masks, which everyone now could see the first man also wore.

The three crossed the room disappearing from sight as they would have come through the same door Tom and Bud had.

As they waited, Harlan mentioned, “We can get their height, size and approximate weight by measuring them as they each pass that shelf of body lotions out there.”

Chief Slater turned to one of his men at the door and ordered him to do it.

Now, in what would have been less than two minutes real time, the first of the men could be seen coming back into the reception area. Tom breathed a sigh of relief on seeing it was Bashalli and that the man had her gently cradled in his arms and was being careful not to knock her into anything as he exited the spa.

With the doors open the camera now could show them the side door of the van opened and the man placing Bashalli onto the seat and buckling her shoulder harness.

Sandy, also carefully being carried, came out next and was set next to her sister-in-law.

Harlan was about to suggest that the manager send him a copy of the file when he got a huge smile on his face. So did Tom, Bud and Chief Slater.

“Did you see that?” the police chief asked.

They had. Two of the men had foolishly removed their masks and for two frames the camera had gotten great, clear images of their faces.

“I already notified Chief Rock of the State Police to cordon off the

area and close all roads out of Shopton,” the police Captain told them. “Now, with shots of at least two of the three we can check every vehicle trying to leave. We'll get 'em!” he promised.

Tom and Bud looked at each other before the inventor stated, “We can't just sit around waiting for you all to get our wives back. You know that, Harlan, as do you Chief. But, I realize you would prefer to have us out of the way, so if someone can tell us just what make and model that van is, Bud and I will go back to Enterprises, get into one of our Whirling Duck helicopters, and scour the area from the air, something you can't do.”

The Chief was about to protest when he caught Harlan's eyes. The Security man gave him a warning look that hit home.

“Uhh, well, that is, I guess your assistance from up there will be appreciated, Tom. You as well, Bud. Uhh, do you recognize that model, Harlan?”

“I'm fairly certain from the side door and how it disappears inside the body rather than outside as it slides open, that it is one of those newer Ford models. I think they're called the Espacioso, which is, in case anyone wonders if my high school Spanish stuck after all these years, means *spacious*. Ought to be easy to spot from the air because although we can't see it in this video, the top of the van features a solar panel taking up the back sixty-percent of the roof to help recharge the battery pack. It's a hybrid van!”

“Come on, Bud,” Tom said as he headed to the door. “We'll monitor and report on police channel three, Chief.”

A moment later both young men were gone. Thankfully, the two women at the desk were still giving statements so the boys didn't have to hear more apologies.

Hopping back into the convertible and making a u-turn, Tom told his friend, “I'm very relieved to see that those goons didn't just toss the girls into that van.”

“Yeah. I was a little surprised. Happy, but surprised. It's almost like they were being gentle. But, as you said, that's good. What do we do if and when we locate the van?”

Tom made a sharp right corner before answering.

“If they are on the move, we report and follow. If they are parked then I'm inclined to drop in on them, but I'm positive Harlan would tell me that's the dumbest thing we could do. Bottom line is, I don't know.”

The gate guard had already been informed about the situation so he waved them through without the standard ID check. It was a

formality anyway in the case of most of the Executive staff, of which Tom, as the son of Damon Swift, the owner, Board Chairman and CEO of the company, obviously fit that description.

They made an almost immediate left turn onto one of the marked vehicle lanes along the broad expanse of tarmac that ran along most of the northern side of the four-mile-square facility. Their destination was the collection of nearly a dozen large hangars where all aircraft were kept when not in use, or were being serviced.

Pulling up in front of the same hangar where Bud's small office was located, Tom was pleased to see that one of the newest models of his Whirling Duck sat, warmed up and ready for them.

This version featured two counter-rotating three-blade rotors mounted at fifteen-degree angles from straight up and intermeshing with each other. Both rotors were about thirty-five percent less wide than if the helicopter had to rely on a single set of blades. In addition, at the back and mounted to a stubby tail section, was an additional specialty propeller for forward push.

Based on Tom's multi-peller technology, this one had eleven shorter blades mounted to a hub. Each blade featured a small angled tiplette to keep usable airflow from simply being flung out; now ninety-nine percent of the air flowed backwards giving the four-man helo a flight speed of nearly 225 knots.

Tom and Bud climbed inside and closed their doors. As Tom checked over the instruments, Bud was putting on his headset.

He took the controls while Tom donned his headset and they were heading skyward within a minute of arriving.

"Want to check all the roads heading out of Shopton?" he asked as the helo leaned to the left before straightening out and climbing as they scooted forward.

Tom nodded. "Yes. At least for starters. While we're here lets swing around one-eighty and cover the south road along the lake."

Bud pushed the stick to the right and the helicopter leaned over on its side making a tight turn. As he brought them level again, he asked, "How far down do we go?"

After checking his watch and doing some mental arithmetic, Tom replied, "Unless they wanted to get the attention of everyone, they wouldn't have headed south until after we passed any place they might have been hiding on our way in, so that means they would only have about twenty-six minutes of travel, and that road is pretty twisty and in bad condition, so I'd say we go just about fifteen miles. That means to the bottom of the lake and to Pottersville. We can be there in three minutes, make a big swing around the town and check

to make certain the entrance to the freeway nearby is guarded, then head back up Interstate 87 until the Shopton exit.”

When they arrived at the small town of Pottersville, site of the transfer rail yard for the shipments of Swift MotorCar Company vehicles, they overflowed the entire town of six hundred and its single freeway entrance inside of one more minute.

They spotted no sign of any van, much less the van they were searching for, so Bud swung them north and followed the freeway until it was time to turn off to go east to Shopton. The State Police had that entrance blocked and the officers, leaning on the trunk of their car, looked up and waved.

Bud wagged the body of the chopper, the helicopter equivalent of wiggling the wings of an airplane.

He slowed them to nearly a crawl as they came to the first homes just outside of Shopton. One of them, the old Thursby Manor, sat on a slight rise. It had been abandoned when the last of the family had moved and no new buyer had been found willing to pay the overpriced amount the heirs wanted for it.

“Wouldn't it be odd if those goons were hiding out in that mansion or one of the other empty places around here?” Bud asked, almost to himself, but loud enough for his microphone to transmit it into Tom's headset.

“Odd, but entirely possible, Bud,” he responded. After a twenty-minute tour of each of the streets of Shopton, Bud headed north on the same lakefront road they had followed on their southern leg. This not only led out of town but it also went past the Shopton Regional Airport, a small one-runway airport capable of smaller aircraft only. There was no van of any type parked there.

They only flew far enough to get to the next point where the van might have entered the freeway, and still saw nothing other than state police. So, Bud turned them to the west and headed to the small town of Thessaly. Smaller than the recently burgeoning Shopton, the town sat next to its own, also much smaller, lake.

A quick look told them the van would not have found a hiding place in the village that mostly featured on street parking and a few carports they easily looked into.

They flew back to Shopton and hovered above the City Hall.

Tom keyed his radio make. “Tom Swift in Enterprises' helo One calling Shopton Police.”

“Go ahead, Mr. Swift,” came the response. “This is Shopton P.D. Dispatch.”

“We haven't heard anything from you folks for the past hour. Is there anything to report?” Even Tom knew his voice had risen half an octave and he sounded desperate.

“Well, not right at the— hold on. I've got something coming in...” and his radio went silent.

The two men looked at each other, tension apparent on their faces.

At their present low altitude, Bud knew the steady thrumming of the downwash of the blades would gently remind anyone in the building there was someone above them waiting for information.

And, two minutes later it came.

“Mr. Swift?”

“Tom here.”

“I have Chief Slater coming to the communications room. Just hold a sec...”

About thirty seconds later, the voice of the police chief came over their headphones.

“Tom? I'll assume Bud Barclay is up there with you. Can you please move that egg beater to the side? It's like being inside a kettle drum down here. Anyway, that's not what I wanted to tell you. We have some good news. Well, partially good, that is.”

“Tell me, please, Chief, and Bud is maneuvering us higher so you won't get so much buffeting.”

“Fine. So, we just got a call from that day spa. They started getting phone calls about ten minutes ago. Nobody spoke for the first several, and then a young female voice gave a speedy address and hung up.”

Tom and Bud's hearts raced with relief until they both realized that hearing from one female didn't necessarily equate to both their wives being on the other end of those calls.

“Have you traced them?” Bud asked.

“Far too short for the phone company to do a manual trace, but Harlan Ames is putting Enterprises' computers to the task. We should have some general location information in twenty minutes. I think he is going to call you between now and then.”

Tom thanked the policeman and switched over to the Enterprises primary frequency. It was just in time for him to hear, “...you there, skipper? It's Harlan. Come in, please.”

“Tom here,” he answered. “We were just on the radio with Chief

Slater. What have you found out?"

"We have a man, Phil Radnor, at the day spa and he took the most recent call. Before anyone could speak he had been told to ask if it was Sandy or Bashalli. It was your sister. All she had time to say was that she was free and hiding in some woods around where the old fairgrounds were. I've got three cars heading there but you ought to beat them in the Duck."

Bud didn't need to be asked. He swung the helo around and poured on the throttle for the rear propeller. They raced above the small municipal golf course and over several houses, including the Thursby Manor on their way to the fairgrounds that had been abandoned a few years earlier in favor of a new facility donated to the city by the Swifts.

A swath of forest area about a mile wide and perhaps a thousand feet from front to back came into view.

"There!" Tom shouted, pointing.

Bud changed their course slightly and came to a hover above the forest area. Mostly composed of oaks and other leafy trees that had not fully come into bloom the two of them found it relatively easy to see to the ground. Bud moved them from side to side but it wasn't until they got to the edge of the overgrown parking area of the fairgrounds that they saw anyone.

"That's Sandy!" Bud whooped and dropped them down to land just a few yards from the blonde girl.

She walked over and yanked the back door open, climbing inside.

"Am I ever glad to see you two. Hey, Bud. Thanks for the flying rescue committee!"

Tom turned around and looked at his sister. He was happy for her safety but worried more than ever.

"What about Bash?"

She shrugged. "We were driving along Hoffman Road when they slowed for a tractor making a turn into a field and I jumped out. I wanted to grab Bashi's hand, but she was still buckled in. I'm so sorry, Tom, but I just ran." A tear cascaded down her face and her lower lip trembled.

"Do you know where they are going?" he asked, keeping his voice level; he knew shouting or anger would get them nowhere.

As the helo rose, she shook her head.

Bud headed at top speed for Enterprises where he touched down in the parking lot of the Dispensary. Doc Simpson and a nurse were

waiting for them with a wheelchair. Sandy tried to refuse it, but she finally gave in and was whisked away to be checked out.

Half an hour later and with a couple scraped knees cleaned but a good report on her overall health, Sandy came out practically throwing herself into Bud's arms.

As she hugged him, her cell phone vibrated in her front pocket.

Pulling back she looked at the screen.

"It's a text from Bashi! She says she's close to the lake and only two minutes from where I bailed out."

Tom made a grab for her phone but she pulled it out of reach. "Sorry, but that's it, Tom. Come on, and let's figure out how far they might have traveled in two minutes!"

Security was in the next building so they ran from the Dispensary to there and straight past the receptionist. In Harlan's office they came to a halt and Sandy handed the startled man her phone.

Without a word he swiveled around to a wide filing cabinet and pulled a detailed satellite photo-map of Shopton from it, laying it onto his desk in a single motion.

From his desk he pulled a protractor and a laminated page with a scale and many numbers on it.

"Let's see... hmmm... if we assume they traveled at just over the top legal speed and made an immediate U-turn from where Sandy says she was able to get out... uhh, is that about right here?" he asked stabbing a finger onto a road next to a stand of trees.

"More like here," she replied sliding his finger what would have been about five hundred feet farther to the west.

"Fine, then—" and now he consulted the card, spread the protractor out on the ruler and the returned his attention to the map. The pointy end went down where Sandy still held a finger and he drew a circle all around that.

"If she says she is near the water, that means one of these seven or eight houses," Bud declared.

"Right, so let me get one call in and we'll head there." With that, Harlan picked up his phone and called the police. A minute later he stood up, started to walk around the desk, and pressed his TeleVoc.

By the time they arrived outside and climbed into one of the company Security vehicles, five other men were coming out a side door and getting into three other Security vehicles.

They raced out the gate and, with lights flashing but no tell-tale sirens, headed for the highway that ran along the lake front.

They might just as well have driven at legal speed. When they arrived at the houses, Bashalli was standing there with three police officers. She had a big smile on her face as she ran to Tom.

“Oh, Bash. I was so worried for you and the baby. Is... is everything all right?”

She nodded and smiled up at him.

“Oh, yes. The men who took Sandy and me had a police scanner radio and took off as soon as they heard the call to come down to these houses. They did not mistreat me especially once I explained about being pregnant.”

At that moment the closest officer's radio squawked. *“Attention. All Shopton units. We've stopped a van with three large men inside. They have been subdued and are under arrest.”*

“I am so happy this is over,” Bashalli told her husband.

But, Tom wasn't quite as sure as his wife. These things rarely just happened, got solved and went away!

CHAPTER 5 /

THAT CAN'T BE HAPPENING!

“TOM? IT'S George Dilling. I think I have something you need to be in on. Can you come right over or should I transfer it to the conference telejector in your office?”

“Is this an active link or something recorded, George?”

“Coming in live, skipper.”

“Let's not keep anyone waiting. Send it over here, please.”

Eight seconds later a soft ping announced the arrival of the signal. The small telejector unit hanging from the ceiling turned on and the beautiful 3D images from it began floating just above the low tabletop.

“Oh, hey, Tom,” came the smiling face of Red Jones who was currently the acting leader of the construction team up at the new space station—the one at the top of Tom's space L-Evator that was nearing completion.

“Hey yourself, Red. What's this about?”

“Well, as you know we have a much better and cleaner view of the wormhole out past Mars than the Outpost does. The Moon barely gives them two degrees of separation where we have nine, so we have been monitoring it for the past month since we got that part of the equipment up here and installed.”

The new station, hundreds of times larger than Tom's original space wheel Outpost, was cylindrical in shape with a hollow interior and everything built around the inside of the tube. Now that it was spinning about its central axis, anything touching that hull—or any surface in any of the structures—felt a nearly 3/4-G pull. It had nearly half of the electronics and mechanical systems installed and was starting to become a functional station.

A month earlier the hull had been sealed and a hydroponics line, very similar to those at the colony on Mars, had begun growing a special type of algae that produced more oxygen per cubic yard than almost any other thing available. It would be months before there was enough oxygen to raise the indicators more than 10%, but by that time Tom hoped the *Goliath* would be making regular deliveries of air so the proper levels of nitrogen, CO₂ and the lesser gases would become the atmosphere. After that, the hydroponics would simply be used to augment the oxygen and to produce edible materials for the inhabitants such as they did on Mars.

Only construction teams resided inside and they rode up and down on the L-Evator anchored at the Galapagos Islands. However, that new spacecraft under construction out on Fearing Island would take over personnel handling in a few months.

“Sure I do,” Tom replied. “At least, assuming you are talking about the wormhole Bud and I went through to where we saw that backwards-running black hole.” The actual wormhole had been quite short inside but exited at a point several light years distant.

“That would be the one,” Red told him, smiling at his young boss before turning serious. “Since you left that cable from the far end back out to here, there has been constant observation going on. As I recall, at least fifty astrophysicists have visited the Outpost to spend a couple days just watching the phenomena.”

“Uhh-huh,” Tom replied. “I sense that something new is happening out there. Is the hole becoming unstable?”

“Not hardly. Even though we can tell that the end points move around—within a few hundred miles at both ends—the length inside has remained to within a few inches of what it was when you first found it.”

Tom frowned. “So, is there some other strange thing happening other than the black hole?”

“There is indeed. Now, I'm going to try to switch my pretty face over to a video we have received. Yell out when you see the image.”

Red's face ducked down and Tom could see the top of his head, and even the recently-appearing bald spot growing at the back. But, seconds later, and as the lights in the office automatically dimmed to allow for best viewing of the mostly dark image, Tom could see the black hole.

As before when he and Bud were nearly trapped too far from home to expect rescue, the hole was running in reverse of everything physics said it ought to. In other words, things were spilling up and out from the absolute blackness of the center of it only to arc out and back down where things were disappearing into the sides of the phenomena.

“I've got it now, Red,” Tom told the man. “Uhh, what am I supposed to see? It can't be the running backward thing. I was there. Bud and I saw that.”

“No, skipper,” Red's voice sounded out, “but wait about another fifteen seconds and keep your eyes on the right side of where the camera is.”

They waited together until Tom cried out. “What? That can't be!”

As he watched, in the distance of about a hundred miles, a bright light flashed and a long and lean, white spacecraft nosed out of it coming to a stop. The picture zoomed in and in a combination of horror and amazement, Tom could see that the ship was his own *Galaxy Traveler*, the ship he and Bud used to get through the wormhole and the one so badly damaged when they were sucked into the black hole and spat out back in their own solar system that it had to be dismantled and completely rebuilt. That work, now two years in the making, was weeks from completion.

“How is that possible?” he whispered. “I mean, who can that be?”

“The prevailing thought is, Tom, that it is really you and Bud out there, that the point where the wormhole is today has drifted, as I believe you reported back then, and we are seeing what happened at a point back in time. Nobody up here wants to hazard a guess how this is possible, just that we agree that is your ship. Watch for another few seconds as you finally moved off. It all matches to the second what your electronic log said happened *two years ago!*”

Tom watched but had to say, “That cannot be happening, Red. I mean, if there was such a thing as time travel, then I'd say something along the lines of, 'Well, interesting that we are viewing a real time paradox. Wonder what natural phenomena is doing that?' but—” The inventor found he could not complete the sentence.

“I'll start sending it down to George's people, skipper, so you can watch it again and again. Maybe you and your dad can think of something. We are stumped.”

Tom thanked his friend and signed off.

Five minutes later George called to say the video, all two hours of it, was ready for viewing.

“You can call it up there in the office, Tom. Red's people indexed it at five minute intervals plus a special time marker five seconds before what looks to be impossible occurred.”

Tom thanked the Communications man and picked up the remote controller. Flipping it open he tapped the small screen to call up the beginning of the video from a short list appearing there. His finger slid down the new list of time points and he selected the one just above the red-dot-marked point of greatest interest.

He sat watching the video coming from the high-definition probe he and Bud had planted at the exit point from the wormhole they used to get to the point thirteen light years from the Earth. Roughly basketball size, the probe was tethered to a transmitter on Earth's side of the wormhole. Neither surprising Tom nor his father, the internal length of the hole had been measured at a couple hundred

yards. By necessity, the *Galaxy Traveler* had to enter the hole on Earth's side at a relatively fast speed, but in “real space” it would have traversed the entirety of the hole in a second, whereas once inside it took them many minutes to make the passage and exited them light years in the distance.

As Damon had commented at the time, “It looks like time and distance theories need some serious re-study!”

The probe’s tether was actually a mile long in case the wormhole stretched out, but to date it had remained within about seventeen inches of the same distance end-to-end.

What they had realized, even while he and Bud were in the distant solar system, was that the exit point at that end moved around, sometimes by inches and sometimes by miles.

And now, it seemed that the camera at the exit point had moved by nearly a hundred miles. The wide-angle lens system gave a full 200-degree view all around the probe and Tom had been able to electronically enhance the video to bring things much closer.

Then, as he watched, now sitting forward in the chair, the small flash came announcing that the wormhole exit was being forced open, and the nose of his ship popped out followed by the rest of the *Galaxy Traveler*. He watched for another ten minutes recalling in his mind what maneuvering they performed back then. This video showed exactly what he remembered had happened.

About a half hour later Damon Swift came into the office only to find Tom sitting in silence looking at the image of the *Galaxy Traveler* sitting in space.

“She was quite a beautiful ship, Tom,” he said in a soft voice. “And, she looks so serene sitting there in—”

That was the moment the enormity of what he was seeing floating above their conference table hit him.

He reached out to grab the back of one of the chairs and—without taking his eyes off the image—felt his way around and sat heavily next to his son.

“That can’t be!” he stated categorically.

Nodding to his left, Tom could only say, “And, yet it is.”

He turned to his father and explained what Red had told him and then reran the video of the appearance of the white ship.

After the third viewing they sat in silence until Damon spoke. “Are we seeing something there that indicates that travel through time is possible? I hardly can believe that, but as nobody can prove it impossible, this sure looks to indicate it is.”

Tom could only slowly shake his head. "I'm not sure, Dad. All I can tell you is that I stand behind the idea this is not a hoax, not something fixed up in any computer. In fact, I went to highest focus on the nose and spotted the blackening the ship picked up because we were a little too close to the antimatter explosion that forced the wormhole open on the outbound trip. That," he said pointing at the frozen 3-dimensional image in front of them, "is my ship with Bud and me inside. It even paused there while we woke up and shook off the effects of the trip through the wormhole."

Damon looked from the image to Tom. "I have the notion this will fall on deaf ears, but please do not go back out there to dig into this. At least, not right now. Get the satellites replaced, send up another unmanned probe or something, but do everyone a favor, and that includes your young, pregnant wife and unborn child, and stay home."

Tom nodded. "Okay. For now. But you have to admit the idea that time travel or at least shifting time around, is intriguing." He raised an eyebrow at his father.

"Intriguing, yes, but possibly dastardly to mankind, a potential certainty."

The subject was tabled and the 3D projection shut off. Tom sent the video file for secure storage and left the office to check on the status of his satellite replacements.

"It'd do a world of good, skipper," he was told by the head of Electronics, "if we had one or more of those old sats in house. I'd like the boys to clean them, repair them structurally if needed and fabricate anything else needed."

"I can go up with Bud tomorrow and retrieve up to four of them," Tom told the man. "We got a release from the Government just this morning to do that. Uhh, I've got the list here. Want to hear which ones we get to select from?"

"Well, is there much difference between them?"

"Fuel tank capacity, battery age and type, and one of them is really old and went totally dead two years ago, We only have an approximate location for that one. The others we can ping."

It was agreed to pick up the four latest models as they would have the best capacities.

Tom hung up, He left the workshop and TeleVoc'd Bud. The flyer was very happy to come along.

They met at Tom's house at six and drove together to Enterprises. The *Sky Queen* had already been rolled out to her

takeoff point and prepped for flight. Today, they would be using her to transport a half-dozen experimental generators to be installed in three of Tom's Seacopters. Designed to take some of the flow of water and air from the rotors and use it to spin a specially-balanced and geared generator, they were supposed to be capable of doubling the available electrical power to the flying submersibles.

Once offloaded, that same cargo space would hold the returning satellites less than ten hours later.

The trip up would now take them above the South Pacific because the satellites to be retrieved spanned two orbital paths over the Pacific. The *Challenger* lifted off at exactly nine a.m. and Tom piloted them up to a point nearly twenty-three thousand miles over the ocean where they soon rendezvoused with satellite number one.

Originally launched in the late nineteen-sixties, it had been limping along for decades barely able to maintain enough heat to keep from freezing, and only reporting its position about once a week.

Bud had little difficulty pulling it in after cutting away the torn solar panel. He was going to give it a shove Earthward when Tom came on the radio telling him to bring it along.

“No use adding to any problems lower down, flyboy!”

Satellites two and three were also of little difficulty and were soon stowed in the hangar that made up most of the lower level of the giant cube ship.

It was once Tom got them to within fifty feet of satellite four when he had to let out a groan.

Half of the equipment had been dissolved by what must have been a leak in the hydrazine fuel tank. Exceptionally explosive when air was present, it was also so corrosive that only glass-lined stainless steel tanks could hold it for the years and years of a satellite's anticipated life.

“She's not going to behave, Tom,” Bud warned as he floated closer to it. “One entire side is looking like metal jelly and I really don't want to touch it.”

“I don't blame you, Bud. Come back in. We'll leave this one for now. I'd be tempted to just go to locate the final one, but it is not going to help us. Let's head back with the three we've got and be happy with those.”

The ship touched down lightly only seven hours after leaving. Men in hazardous materials suits swarmed over the lower part of the ship removing the satellites and moving them into large plastic

bags in the *Queen's* hangar.

Before quitting time that afternoon, the people in Electronics had taken delivery of the three dilapidated pieces of space technology.

“Gee, Tom. We were hoping for something a little more ancient!” the lead man commented with a wry grin.

“Had to leave that one up there. Space vultures were roosting in it and I didn't want to disturb them!”

The weekend came and went. As Tom and his father sat in their shared office sipping coffee and discussing the events of the past several days, Harlan came rushing in. Seeing the two men sitting calmly in the overstuffed leather chairs of the conference area he slowed and nonchalantly walked to the credenza along the wall and poured himself a cup of coffee. Once he was sitting his face assumed an air of innocence.

“Spill, Harlan,” Tom requested. “You've got a 'I know something you don't know' look on your face.”

The Security man set his cup down and nodded. “I do. You will recall that three large, oafish men took Sandy and Bashalli prisoner the other day. Well, and this is a little bit of advice I hope the bad guys never get wind of, it doesn't pay to hire the dumbest of the dumb. Just two days of being held in a jail cell and one of those three decided to sing out loud and clear. He even provided a little written evidence.”

“What?” Tom and Damon said together.

“He kept the old-fashioned telegram that had been sent to an intermediary who hired the three for his boss.”

Damon looked a little exasperated and so Harlan got to the point.

“While we can't be sure why this intermediary gave the telegram to one of the thugs, it came from a three-way relay. We backtracked it from New Jersey—origin of the trio—to an office in Buenos Aires and back from there to Chisinau in Moldavia and back to the point of origin in Qinzhou, China.” He looked expectantly at them. When both father and son registered no recognition, he filled in that blank.

“As in the area where the satellite destroying missiles came from? As in the area being run by that man, Ponticrief Lacrobat?”

Now it registered. Tom and Damon had their jaws go slack and their mouths go agape.

“It's connected?” Tom gasped.

Harlan nodded. "It very much looks like it, Tom. I find it most unlikely that Lacrobat's name would be on anything he isn't associated with. Nearly nobody knows about him or who and where he is. The State Department, obviously as well as the CIA and Interpol, but I hear that even a casual inquiry from our Ambassador to China about going on in that area brought zero response."

Damon looked seriously at his son. "If this Lacrobat was behind the kidnappings, what in the world do you suppose he wanted to accomplish? You're not working on something I'm not aware of, are you?"

With a slow shake of his head, Tom responded in the negative.

They both turned to look at their Security man. He shrugged. "We have no indication of anything. Both Sandy and Bashalli gave me a full report on what they went through and what they might have heard. Nothing, except Bashalli thought she heard two of the men mention, as they drove away from the spa, that they wished they knew what was expected of them beyond just grabbing the girls and taking them to that empty rental house by the lake."

When Harlan left Tom looked at his father.

"This can't be because of our intention to replace those communications satellites. We have only just agreed to the project and it is not going to be announced to the public until it has been completed. So, why us and why now?"

Neither man could come up with any answer and so fifteen minutes later Tom wandered out the door and walked down the hall to his large lab.

First it was the kidnapping of Bashalli and Sandy, and now this. Or, rather it was the whole satellite thing—including the absolute refusal by Lawrence Duggand to do anything to assist Tom in replacing the fallen communication devices—and then the kidnapping and now came a mysterious request from his own sister.

"Bud? I need to have you and my brother help a friend. I think she is being held hostage and needs to be rescued. You two were excellent with saving Bashi and me so it's up to you to do it again."

He scowled slightly. First, he hated the idea of anybody being a hostage especially this soon after Sandy and Bashalli had been kidnapped. Then, his wife had sent him and Tom on wild goose chases in the past when she "had a feeling" something wasn't right. At least twice it had proven to be just that. Chase. Goose. Wild. Nothing!

However, once she had been right and once she had led them into a trap. He was at a complete loss for what this one might be.

“Uhh, Sandy? You know I love you and all that, and I'd do just about anything for you, but is this really a case of this friend asking for help?”

She put her hands on her hips and took a breath, ready to rebuke him for not jumping to her request when she saw the look in his eyes. She melted and her arms dropped.

“I'm almost certain. I mean, I haven't exactly kept up with Lindsey over the years since she moved away, but she kept me in her cell phone list so now she's come back to Shopton and is in trouble, she called me. Well, sent me a text. And, when I tried calling her back, there was no answer. So, I'm a little scared for her.”

“I have to tell you that after you and Bash getting kidnapped like that I'm a bit hesitant to believe all this.”

She nodded. “Yeah. I know, and if it hadn't been for her mentioning her old nickname for me I'd be suspicious, too.”

“Huh? You had a nickname back in high school I didn't know about?”

Sandy looked briefly down at her chest. Mother Nature had blessed her with greater development down there than most girls.

“She used to call me San-D,” she told him. “That's how she began her text.” She shrugged.

He nodded before turning to go to their bathroom for an aspirin.

At least if I'm going to get conked on the head over this, I can take care of the headache ahead of time, he told himself.

CHAPTER 6 /

OLD THURSBY MANOR

AT SANDY Swift-Barclay's request, Bud phoned Tom and suggested he picked the inventor up.

"San's got a bug in her bonnet," the flyer told him, "about one of her old classmates, Lindsey Everton. She thinks this girl has come back to Shopton and is in some sort of danger. Got a text. I'll tell you more when I get there."

Ten minutes later both Tom and Bud were in Bud's convertible speeding down one of the side roads into Shopton. As they entered the city limits the car turned onto a side street that wound around the far side of town, away from the lake. Several small hills in the area, and a lack of street amenities such as sidewalks, street lights and even painted lines on the road surface lent an air of run down ruralness to the area.

As they came around one final curve both could see the large house of one of Shopton's earliest wealthy families sitting atop its own small hill. The property was surrounded by a wrought iron fence some ten feet high.

"There it is, skipper," Bud exclaimed as he slowed the car, finally pulling up to a tall iron gate that blocked the driveway.

Whether it was the rather spooky-looking house with its minarets and architectural details that made it seem more out of an old horror movie, or the sudden chill breeze that swept over the open-top car, both boys shivered.

Bud had, after Tom got in, filled him in on Sandy's request. Over the years since high school she had kept up with Lindsey every month or so for a couple years. Phone calls had given way to emails and then to occasional text messages before their communication became quite sparse and random. It had stopped a little more than a year earlier.

They had been fairly good friends the last three years of school with the raven-haired Lindsey heading to a college in Virginia for a degree in accounting. She had married and divorced and then was supposed to have moved back to Shopton about five weeks earlier, going back to live in the house her great-great-great grandfather had built from his fortune made in the timber industry.

There were still reminders of his slash-and-burn logging techniques in that most of the hills around the town were devoid of

the large oak trees that had covered the entire area at one time.

The boys got out and approached the gate.

“So, Sandy thinks her friend is in trouble, but did she say what kind?” Tom asked as he reached for the door of the call box mounted to one side of the hinges.

“Nope! Just that she received a voice message on her cell phone from sometime around five this morning where Lindsey told her she was in danger and needed help to escape.”

“Escape?”

Bud shrugged. “That’s what the girl said. I listened to the message myself. Not too much more than that.”

Tom opened the call box only to find that someone had vandalized the workings, and from the looks of it, months or even years ago.

“Climb, or see if there’s another way in?” Tom asked.

Bud leaned against the gate. It moved inward on well-oiled hinges. “That’s not right for a start,” he commented on the nearly silent swinging of the very heavy gate. “Old iron gates are supposed to grumble, groan and scream out if you even look like you are going to try moving them. Countless horror movies say so.”

They walked up the driveway after mostly closing the gate. As they approached the five steps leading up to a wraparound porch and the front doors of the mansion, Tom put a hand on his friend’s forearm, stopping them both.

“Do you find it a bit odd that there are no visible signs of occupancy here? Like no cars or flowers growing in those window boxes over there?”

“It does seem a little like something of a set-up, doesn’t it?” Bud replied. He pulled his phone out and speed dialed home. “San? Listen. We’re here and the place looks deserted. If I don’t call you again in ten minutes, get the police out here. We left the front gate ajar……. Yep! Love ya!”

Tentatively, they walked up the stairs—the eerily creaking stairs—and to the front door. Tom knocked. Inside, they could hear the sounds echoing in what would be a large entry room.

A minute later he knocked again. Another half minute passed before Bud reached out and gripped the ornate doorknob.

It turned in his hand and he pushed the door open.

“Again, I say this is spooky and feels all sorts of wrong,” the dark haired young man said.

Stepping inside but leaving the door open, Tom called out, “Is anyone here? Lindsey? Are you here?”

He looked around the room. As he had surmised it was large with a ceiling at least twenty feet over their heads. All the furniture pieces were covered with sheets of dusty cloth, but the floor looked freshly cleaned.

“Get out of here!” came a growling voice from an alcove half way across the huge room. A menacing, tall and very broad man stepped into the room. He pointed at the door. “I said to get out! Go! You are not welcome here!”

To Tom’s shock and dismay, Bud strode straight over to the man, chuckling. The inventor hurriedly walked over in case he needed to protect Bud.

“Hello, Mousie boy,” Bud greeted the angry young man.

The man was at least six-foot-six—more than five inches taller than Bud or Tom—and must have weighed in at well above three hundred pounds of what, to them both, looked to be all muscle.

The other man looked down at Bud and growled. “Get out of here, Barclay, and take your brainy buddy with you.”

His words seemed menacing but the way he delivered them was more like a young boy in a primary school play who had been given his lines at the last minute.

“I don’t like being threatened, Mousie. Are you threatening me?” Bud asked holding out his right hand behind his back so that only Tom could see it. It was open, palm up.

“You must leave here, now,” the large man told them, now looking over the top of their heads. “I have been told to make you leave.”

Tom looked down to see Bud fold his little finger down and across his palm.

“That’s one of five, Mousie. Say, Tom? Did I ever tell you about good old Mousie here? Say hello to Tom Swift, *Bradly*,” Bud told the man.

When he made no sound, Bud continued. “It’s *Bradly* without the letter e because he thinks it makes him special. *Bradly* here was on the Shopton High football team with me. Defensive lineman. Had a big growth spurt between junior and senior years and came back saying we were to call him Moose from that point on. He started being quite a bully about it until about a month into the season when one of the kids from the chess club walked up to him, announced that he didn’t like being bullied, and flattened old

Bradly with a single punch. *Bradly* got up looking like he was going to cry and scurried away like a little mouse. Hence, Mousie!”

“Knock it off, Barclay,” Mousie said taking a step forward. “It’s Brad now.”

Tom noticed Bud’s ring finger fold down over his palm. “That is two of five, *Brad*.”

The large young man looked slightly confused. Returning to sounding like an ill-rehearsed young actor, Brad intoned, “You two are not wanted around here. We... uh, I do not know how you figured you needed to come here, but you must leave now.” His eyes that had gone back to focusing over their heads looked down into Bud’s eyes for a second before his gaze shifted around as if he were looking for something.

“Three, Brad. Three of five.” Bud’s middle finger joined the other two folded into his palm.

“Huh?”

“Listen, Brad,” Tom said trying to smooth the situation, “we’re only here because Bud’s wife got a message from someone who lives here asking us to come. You can understand that, can’t you?”

Brad’s gaze flicked from left to right before going back over Tom’s head. “I must ask you to depart at this very instant,” he said before a puzzled look came over his face. He seemed to be listening to something but finally added, “Nobody named Lindsey is here and she didn’t call you so scram!”

Tom reached out and folded Bud’s index finger over giving his friend’s hand a little squeeze. Bud nodded, still facing away from the inventor.

Tom said, “Brad? I think my friend here would tell you that is now four of five. Do you understand what is going on?”

Brad’s gaze softened and he looked down almost pleadingly at Tom, but he soon stiffened and, again, seemed to be listening to some inner voice.

“If you two do not depart in an instant then I will have to remove you by force.” As if realizing what he had just said, Brad swallowed hard.

“And, that is five,” the flyer said adding his thumb to the other digits. “Brad? Look up there,” he said pointing toward the ceiling with his left hand.

As the giant tilted his head up to see what Bud meant, the newly-formed fist shot out connecting with the big man’s jaw. The results were not what either Tom or Bud expected.

Brad's face turned back down and screwed up like a little child getting ready for a good screaming tantrum. But, before a sound could utter from his lips, his eyes rolled up showing nothing but the whites and he crumpled to the ground.

Bud was about to remark about the results when they both heard slow, steady clapping from above them. They looked up at the railing running along the back wall of the room. A man clad in what could only be termed "funeral director's clothing" stood there, clapping at a rate of about one per second. On seeing them looking up, he stopped.

"Bravo. Very good show. Never saw that coming. Again, sir and sir, bravo!"

"Who the heck are you and were you pulling Brad's strings a moment ago?" Bud called upward.

"Ah, wait and see, young sirs. I shall be down shortly. Please wait for me. I guarantee your safety for the time being. At least until that lump awakes."

With that, he pulled back and disappeared. Seconds later the hum of equipment could be both heard as well as felt. Then, a click came from the wall under the overhanging railing and both Tom and Bud stepped back in time to watch part of the wall near them separate.

"An elevator!" Bud hissed.

"Of course it is an elevator," the mystery man stated as he stepped from the small cubicle. "About the only thing more modern in this house than the addition of flush toilets in the early nineteen-twenties. There now. Allow me." He held out his right hand, palm up, in which a pair of business cards lay. Tom took one and glanced at it while Bud maintained a close watch on the man.

"Abner Carlyle Everton, huh?" Tom asked after reading the name. The initials were obvious but he doubted the man would ever call himself "Ace."

"At, as the saying goes, your service, Thomas Swift.

Now Bud picked up the second card and read it. "Thought so. You look to either be an actor playing the role, or are really in the bury 'em business. Funeral Director and Mortician this says. Really?"

Their possible host bowed sweeping his right hand away from his body, telling them, "Yes. I am that precisely. And, I am the father of Lindsey who, I am afraid, is having a rather bad tantrum right now. I have forbidden her to go out this evening and down to Albany for a

date with a young college man I know to be beneath her. For golly wog sakes, she is twenty-two and he is only nineteen! What would you do?"

He shrugged himself out of his black jacket and pulled the end of his bow tie to loosen the knot. With the coat and tie now removed, he looked more like a businessman.

Moose moaned but did not open his eyes.

"If you can hear me, young Bradley, I suggest remaining prostrate until your betters depart. Then I shall give you that crisp twenty dollar bill I promised, even though you did not dissuade our guests from remaining." He looked up into Tom's eyes. "You see, after I found out Lindsey had sent Mr. Barclay's wife a message I took her phone and told Bradley here to stand guard downstairs while I had been keeping a watch to stop Lindsey from knocking out a screen and climbing down a drain pipe. Ah, listen. You can hear her feet scrabbling on the tiles above the front entry even now. Come."

He motioned Tom and Bud to follow. Opening the front door they were in time to see the first of two feet coming down a trellis. The shoes were impossible high heels that ought to have made such a downward climb undesirable if not impossible. As the knees appeared and then the hips—almost scandalously revealed by her up-riding short skirt—Abner Everton stepped forward and grasped the right ankle.

A little scream came from above and the legs tried to scramble back up, but the grip held.

"Come on down, Lindsey. Tom Swift and Bud Barclay have come to rescue you from your *durance vile*. At the very least come to face them and thank them for their efforts."

A decidedly female chest came into view followed by a long neck and a pretty face complete with short, dark, bobbed hairdo. Tom had only seen Lindsey once or twice and the last time had been easily four years ago. She was a stunningly beautiful girl with a smile that spoke of trouble to come.

While she was getting herself arranged and brushed off, Bud muttered to her father, "Now I get the imprisoned stuff."

"Quite."

Possibly a bit more petulantly than a woman over the age of thirteen ought to be, Lindsey told them, "I could have made it, you know. I was just seconds away from freedom. You hear that, *Daddy dear*? Freedom. Not this stalag you've created to keep me in."

"And, also tell them that you hope you didn't put them to any

trouble, dear,” he instructed as if not hearing her outburst.

She deflated a bit. “Sorry. Hello, Tom. Hope your folks are all right. You must be Sandy’s hubby. Uh, congrats and all that and tell her I’m sorry for the scare.” She turned back to her father. “It is just that I am of more than legal age and am being denied my rights to do what I want.”

With that, the cell phone she had tucked into her bra rang. She plucked it out and pressed the screen. “Speak.”

She listened for a minute before muttering, “Oh. Okay. Bye,” and shoved it back into its resting place.

“You will be happy to know that I will not be going to Albany tonight or any other night, *Dad*. That was Trevor and he’s in jail. Somehow he managed to get into a fight in a bar last night and got his lights punched out. When he came to he was in jail with about a half dozen charges against him including underage drinking and attacking a police officer. Rats!” She now totally deflated and walked past them and back into the house.

A moment later they all heard to loud “Ooofff!” and “Why did you kick me, Lindsey?” from Moose.

Tom was the first to find his voice. “Is that what this whole thing was really about? Your evidently spoiled daughter having a little tantrum because you didn’t want her seeing some teenage lout?”

Abner nodded but took a light hold on the inventor’s right arm. “Certainly,” he stated in a slightly louder than needed voice, then he changed to a whisper. “But, please come in and I will tell you the rest.”

The boys exchanged glances.

“Well, if Mousie tries anything I can put him down again,” Bud offered.

They walked back in behind Mr. Everton.

Brad had managed to get himself up and was no longer in the room when they entered. Only the small earpiece he’d listened to for his cues remained behind.

The three men walked into a side room and Abner closed the door behind them. He grabbed the sheets from two pieces of furniture and dragged them off. Underneath were a sofa and an easy chair facing it. He took the chair and motion for them to take the sofa.

“Now then. As your astute question would suggest, you believe there is something more afoot that a father and daughter quarrel. You are correct. Actually, I am not Lindsey’s father. I am an FBI

agent who bears more than a slight resemblance to him. As she has not bothered to see her own father for more than seven years, I have been passing. That might or might not continue.”

Growing tired of all the shenanigans, Tom got to the point. “Why, and you have one minute to impress me.”

The man stood up. “The why is because of both the satellites and the recent kidnapping. Don’t look like that, Tom. I’m FBI. Agent Rob Stowe. Harlan Ames knows me and will vouch for me if you ask him. Just have him describe my birthmark.” He proceeded to open his shirt collar and show the young men an almost perfectly square mole just over the shoulder joint.

“Okay. Let’s go with the FBI idea. Now, why the, oh, subterfuge?”

“Entirely unintended. If Lindsay hadn’t gotten it into her head to try to go meet this criminal—and yes, he is exactly that with a rap sheet several pages long and an eye for robbing rich impressive women—I would have remained in the background keeping an eye out for your safety. This sort of changes things.”

Bud leaned forward, his elbows resting on his knees. “But, why hasn’t Tom been told about you by Harlan?”

“I can answer than one, Bud. Harlan doesn’t know the FBI is here, does he Agent Stowe.”

The man shook his head. “He will in a few minutes. Now I’ll have to come clean. I’d like to keep the assignment and the disguise, so if you could not queer that for me I would appreciate it.”

He spent about seven minutes describing what the FBI had recently learned about the man behind the satellite situation and how he now had agents inside the U.S. One piece of intelligence said they were about to kidnap someone within the Swift organization.

Bud snorted. “Your sources missed that by a few days. It has to be Sandy and Bash being taken. Don’t you think?”

The agent agreed.

“The one thing is that we can’t be certain of the real reasons behind this, and until we do, Tom here may still be a target.”

A knock on the door interrupted them.

“Yes? What is it, Bradley?” the agent called out.

The doors opened and the young man stepped inside. “I just thought you would like to know that Lindsey left out the back door a minute ago and I heard her car go down the driveway. Sorry, Mr. Everton. I thought she’d given up on escaping. What do you want me to do?”

In his Abner voice—which was slightly nasally—Agent Stowe replied, “Let her go for now. Get into your regular clothes and I’ll have you drive with me to pick her up in about twenty minutes. I think I know where she can be found. That’s all for now.”

When the rather oafish man had gone he turned back to Tom and Bud. “She isn’t going to get very far. I’ve put exactly one gallon of gas in her tank and installed a locking gas cap. She not only has no key for it, but if anyone tries to pry it off they will get a rather unpleasant shock.”

“Booby trapped?” Bud asked, intrigued.

The man nodded.

“I’m a little puzzled about something, Agent Stowe,” Tom said. “It is about the real Abner Everton.”

“Ah, you want to know where he is, don’t you?”

“Yes. I will feel better about all this and you being here if I know he is safe somewhere and not among the missing.”

“Or worse?” the agent asked raising one eyebrow.

“Or, that.”

“Then I can put your mind at ease. Abner C. Everton is safe and living for the time being in Los Angeles where he has been pursuing a young woman—half his age and more a contemporary of his daughter—who is trying to break into show business.”

When he did not elaborate, Tom ventured, “She’s one of yours?”

“She is. He is very smitten and she assures us that he has zero intention of coming back to Shopton until at least next year.”

He stood and put out his hand. Tom rose and shook it as did Bud.

“I don’t want you two to do anything out of the ordinary for the time being. Let Harlan know we ran into each other and what is going on. When I get the chance I’ll follow that up with my own call. For now, take care. Oh, and before I forget, both of your wives are now under active observation. There will not be a repeat of the incident at the day spa, I assure you.”

Tom nodded noncommittally “I hope you are right,” he said as they headed for the front door.

CHAPTER 7 /

REPLACE FLIGHT—>RETURN FLIGHT

TOM ASKED Bud if he was doing anything for the next two weeks. It had been three weeks since the old satellites had begun clean-up/conversion and were outfitted with modern-day electronics, high-capacity solar panels and new drive and maneuvering systems, and they were ready to be taken into orbit.

The ongoing hue and cry for getting normal communications back in the South Pacific put a lot of pressure on Swift Enterprises until Damon had made a special press announcement reminding everyone that the next company who might do the work and make the replacements had given a two-year-plus timeframe in which to do that. He told the television audience in a taped address that the seven weeks Enterprises was doing this in was exceptional and nothing could compress that any further.

That halted all but the most diehard of grouchers.

“Well, other than grouting around the guest bathtub and a whole list of ‘Bud, can you please do...’ absolute demands Sandy concocts for me on a weekly basis, not a lot. And,” he looked hopefully at his brother-in-law, “if you have something important for me or us to do, just say the word.”

“The word. Actually, we have a two-part mission to attend to. First, we need to take up the replacement satellites for the ones that nutcase in southern China shot down. We’ll do that in the *Challenger* since we need the cargo capacity. I want to take the new ones up and haul back any debris that might still be up there.”

Nodding his understanding of the situation, Bud commented, “I guess what’s left up there would eventually drift back to Earth and burn up, but there’s a heck of a lot of potential for damage as it comes in, right?”

“Right. The Australian Astronomical Observatory, or AAO as they call it, is tracking nearly two hundred chunks of a foot or more and figure at least five of those could impact other, lower satellites. I’ve had a giant zip topped bag made from carbon fiber and Tyvek built. We’re also going to swing around to drag in that corroded satellite over the Atlantic. Well, actually, by now we’ll be catching up with it as it crosses the Philippines.

“The second part of our mission will take a bit longer. I want to take the rebuilt *Galaxy Traveler* for a spin to see what’s going on at the wormhole. We won’t have the wherewithal to go inside, but I

need to get a really good view of what the probe is seeing and that is going to mean an on-site refit and reprogramming of the transmitter at our end so we receive more than the compressed data and burst transmissions we now get twice a day.”

“Why the old jalopy? I mean, she was fun while it lasted, until it wasn’t, but she is a bit cramped if you will recall. Why not the *Challenger*?”

“Easy. This will also be a shakedown flight for her.”

“Great. Tell me when we leave and give me a phone to call Sandy.”

“Tomorrow on Phase One and the following morning for the wormhole visit. We will take the *Challenger* up to the Outpost where they have been finishing the *Traveler*, but that’ll be our transport out and back. I want to try an experiment to peek inside the wormhole without having to force it open with anti-matter.”

“I suppose she and Bash can go out and shop my latest raise and bonus down to nothing!” Bud tried to look sad, but soon was grinning again. “Tell me more about this video upgrade.”

“Okay. We have tremendous video coming through today, but the state-of-the-art has improved about four-fold since that all went up. I’m hoping we can get 8 X video quality increase from what is coming out to us now. If we can, then even something as far away from the probe as a million miles can be brought into focus enough to maybe tell what it is.”

Bud whistled. “I’ll pack my jammies and give Sandy extra hugs and kisses. How long will be we out there?” He now looked curiously at Tom.

“I figure we’ll do a fast trip out under acceleration, so seven days there, refuel once we arrive from a robot tanker I had launched a week ago from Fearing plus the install of a video enhancement board testing and adjustments will take a day, then we take a slightly more leisurely drive home. Call that ten days. My sister will have to do without you for that time. I really don’t want to leave Bash too long, so... eighteen days.”

A bit sarcastically, Bud replied, “Sandy will be thrilled!”

By the time they got to Fearing Island, a Swift cargo jet had already delivered the carefully-packed satellites. Now sitting on pallets and encased in a thin film of clear tomasite—Tom’s father’s miracle plastic—they were strapped down in the hangar of the giant ship.

“Jetz!” Bud exclaimed as they entered the hangar after climbing the ladder to the lower deck. “They’re so gleaming and shiny and new looking! Don’t tell me you decided to junk what we brought back.”

With a little shake of his head, Tom said, “No. What we did was to take the framework, repair a couple micro-meteorite holes and the coated everything in a layer of AluminoSilver alloy and then topped that off with a couple coats of liquid tomasite. Now, along with resisting deterioration from photons coming from the sun, they can’t be seen on RADAR so that jerk in China can’t easily shoot these down!”

“Bud likes!” the flyer replied.

Within minutes the ship had been sealed tight and the two young men were up in the control room.

Over the years since he built the *Challenger*, Tom had made some changes. Gone was the original control console that had stretched some fifteen feet wide with a tall wall of built-in monitors and five seated positions bolted to the deck. In its place were four repositionable stations each one featuring multiple flat screens that seemed to float above the control boards.

Also, even the futuristic all-glass surfaces showing traditional readouts much like an airliner might have in its cockpit were now touch-sensitive panels where any readout could be positioned to meet the desires of the pilot or person manning that station. These were very much an offshoot of the wraparound panels Tom had created for his Quieturbine Skyliners and the transcontinental bullet train locomotives. They also now featured in virtually anything the Swift companies built that flew, went underwater, or drove on the road.

In fact, so much had changed that a single person could pilot the ship, but Enterprises now required a second person be in the ship for safety reasons.

They rose on repelatron lifters that had also seen improvements now requiring a third less power as the originals yet outputting ten percent greater thrust. This meant that except for trips beyond the distance of the asteroid belt, there was no longer a need for the huge solar power array of the past to be deployed to supplement the built-in atomic power pods.

As the ship lifted and made an almost immediate arc to the west, Tom announced that they would be flying at only an altitude of fifty miles.

“Deep in my heart I know this megalomaniac can’t see the

Challenger on RADAR, but my guess is he is looking up at where the satellites were and planning to attack anything that heads to those positions. So, we are going in low and then will pop almost straight up for the first release.”

“Fine with me. Do we remain at altitude for the other releases?”

“Good question, Bud. I say we see if anything happens on the first one. If not then we just go straight to the next and the next.”

The first release point was the one farthest east from the coast of China. Bud suited up and made the delivery that consisted of removing the wrapping, pressing a single button to release the five clamps holding the device to its pallet, and then pumping the air from the hangar, opening the rolling door and carefully moving the satellite to the edge. From there, and once he was inside, a tiny solid propellant rocket shoved the folded satellite from the *Challenger's* deck and into space. Fifteen seconds later another rocket on the opposite side fired halting its drift within ten feet of position perfection.

Back in the control room Bud was in time to watch as the satellite's solar panels, also now tomasite coated on the underside, unfolded and turned to face the sun. A small LED on the top of the main body blinked three times before turning light blue.

“It's up and running, Bud,” Tom said excitedly. Now it goes into acquisition mode and ought to be online in three hours!”

The task of collecting the debris was straightforward with both Tom and Bud heading out with backpack maneuvering units and small monofilament lines to attach to anything needing to be removed. It took one hour but they had everything of significance attached and at a signal from his arm control box, it all was slowly drawn into the collection bag stationed on the “porch” of the ship.

The other two satellite releases and junk collections went just as smoothly as did the capture of the old, corroded satellite. It had previously been decided that it was too far gone to bring home and so it dragged along on a long tether behind the *Challenger* until they were all closing in on the upper atmosphere. There it was released and burned up in the fall to the ocean below.

They arrived at Enterprises that late afternoon to a welcoming committee of two. Sandy Swift-Barclay and Bashalli Swift met them on the tarmac near to the underground hangar of the *Sky Queen*. This, even though they had flown out and back in one of Tom's “Toad” SE-11 jets. His favorite parking place was next to the roll-back elevator cover and about fifty feet closer to an open-walled hangar and test shed known as The Barn.

With smiles and giggles, Sandy and Bashalli hugged and kissed their men telling them how good it was to have them back.

“But, we were only gone about ten hours,” Bud reminded them.

With a hint of mischief in her eyes, Sandy replied, “This is just to give you a hint of the homecoming you are both going to get when you get back here in three weeks!”

Bashalli, born and raised for more than ten years in Pakistan—and quite a bit more conservative than her sister-in-law—let out another giggle. She went up on tiptoe and whispered something in Tom’s ear making him smile and blush at the same time.

Where the foursome might double date or have dinner at one or the other house, it was decided that this evening needed to be quiet and personal time for each couple before the men took off again for Fearing at six a.m.

Tom swung by in his silver coupe and picked Bud up at his house at quarter till.

Yawning and running his hands through his still-damp hair, the flyer slipped into the passenger seat and said, “Don’t know about you, but I’m getting too old for these early mornings. It’s a young man’s game, you know!”

With them both having quite some time before they even turned twenty-five, Tom had to laugh. The truth was, however, that he often wondered how many more years they had before their bodies would begin to betray them. He knew it would be necessary, but he dreaded the acceleration forces they would be under on this trip. Sometimes he believed it was not better to know what they were in for!

The Toad stood ready outside the Barn, refueled and preflight checks performed. As everything other than the tradition pilot’s walk around inspection was electronic on the jet, all Tom needed to do once they settled into their seats was to get verification that nothing had changed in the five minutes since the techs had started it up, and then request taxi and takeoff permission.

“Gosh, but you are early today, skipper,” came the call from the tower. “You’re cleared for direct taxi to runways zero-one-zero with immediate takeoff. Winds are calm, and barometer steady at three-zero-two. By the time you report to the upper tower I’ll have your flight plan registered with the FAA. Happy flying!”

Tom thanked the man and gave the jet a small amount of throttle, sending them in a tight circle and along the marked taxiway out to the runway.

Fearing was ready for them with the *Galaxy Traveler* already at the Outpost and the *Challenger* turned on and the cabin warmed up. They rose into the air five minutes after arriving and raced up to the geosynchronous point where the Outpost hung over the equator.

Two people in spacesuits were floating nearby when they halted exactly fifty feet from the space station. They came inside through the lower airlock as Tom and Bud were slipping into their suits.

“She’s ready, fueled, stocked and with air reserves, skipper. And, we have verified that the tanker is standing by at the hole.”

“Thank you. We’ll see you again in eighteen days. Be sure to keep *Challenger* ready. We’ll want to get home pronto once we get back here!”

“So,” Bud stated with a straight face, “no joyrides out to Mars. Okay?”

The ship accelerated as it pushed against the planet below and was soon heading at such a speed that the Moon whizzed past seventy-minutes later. With that body to also press against, Tom reset their course for an intercept with the tiny wormhole he had discovered—and figured out how to open enough for the slender *Galaxy Traveler* to slip through—a couple years earlier. They both made certain their restraining harnesses were tight before he “hit the gas,” shooting them forward with a force about twice that of gravity.

Both were pressed hard into their seats, but it was lighter pressure than jet fighter pilot had to endure or even traditional astronauts felt. Even so, it was going to be constant for about seventy percent of the trip before he reversed the ship and slowed down at a 3-G rate.

When they arrived within a half million miles of the destination, Tom again oriented them nose-forward and they headed for rendezvous with the tanker and the wormhole.

The first order of business, he declared, was to fully refuel the spaceship.

“I’ll get that going while you pull out the video boards and test equipment. Okay?” Bud offered.

“Okay, and then we take a nice eight-hour, zero-G break and rest and have a good meal. I never can get used to those protein and carb food bars that Chow makes for us.”

Bud grinned. “Yeah. They’re tasty and all that, but it makes me wish for a good, old-fashioned squeezy pack of soup or lasagna!”

For some unknown reason, the fuel probe refused to seat the first

three times Bud shoved it forward. Rather than a hose and nozzle as in a gas station on Earth, an articulated armature with docking mechanism came from the side of the tanker. All the flyer had to do was to use a small joystick to position it and then press a button that would shove the docking piece into the receptacle in the side of the ship.

It finally clicked home just before Bud was ready to ask Tom for some assistance. Being a ship that operated on both a chem-ionic drive as well as repelatrions, and with the ship only able to carry a small power pod, this tanker provided both the super energy-dense fuel as well as taking over all electrical needs for the ship. This allowed the built-in pod to recuperate and would see them racing for home the next day with full power available.

After rest and food, they both napped a few hours, but Tom was anxious to get the video upgraded that he was slipping back into his spacesuit when Bud turned his head, opened one eye, and grunted five hours later.

“Can I please have ten more minutes? I’m dreaming about Sandy and my going away present. Mmmmmm.”

Tom resisted the urge to smile when he said in a Drill Sergeant’s tone, “Wakey, wakey, wakey, Recruit Barclay. Stop dreaming of my sister and get your keaster up and at ‘em!”

“Yes, mother,” Bud responded and raised up his seat to a normal sitting position. Five minutes later he was also in his suit and they climbed into the small airlock in the right side of the craft. Originally, the ship offered no way to exit without decompressing the entire cabin and crawling out through the nose of the ship. Now, with the lengthening of the *Traveler* as part of its rebuild, this two-man lock meant the cabin could maintain its air.

Tom shoved his equipment and small satchel of electronic boards in ahead of him. Bud followed him inside a moment later.

Two minutes after they sealed the inside hatch, the outer one showed a green light and he unlocked it and the two young men slid out into nothingness.

“I love the great outdoors,” Bud said as they exited into the vacuum of space, “but this is ridiculous. So, what do you need me to do to help?”

Tom ran down the short list of what needed to be done, and they set to it.

While not strenuous, the work was slow and tedious as the probe attached to the tether that seemingly disappeared as it entered the unseeable wormhole exit had never been constructed for being

serviced in zero-G conditions. A special wrench had to be employed in order to keep the boxy probe and transmitter from spinning around when he tried undoing the screws and breaking the seal.

It required three hours and the inventor's brow was drenched in sweat, his suit's air scrubber now barely able to keep up with the extra moisture.

They crawled back inside and took a three-hour break.

Before getting back into their suits, both boys took out packets with pre-moistened cleaning towels and ran them over their faces and bodies. Though neither was still perspiring, they knew that eventually bacteria would begin interacting with their dried and damp sweat and that would cause horrible odors and even health issues. The trick was to suit up as clean as possible each and every time.

As their nineteenth hour on station came and went, Tom was just getting the last of the boards seated in the transmitter. Again, zero-gravity was playing against them. If he just pushed down to seat a card, the box would move away. So, Bud was his table. Just as Tom began to push down, Bud would give his backpack, now facing away from the inventor, a little goose. The effect, once they figured out the correct level of push and right amount of counter thrust, allowed them to get the cards seated in only about twenty times what it might on Earth.

"Can't take them inside for all this, huh?"

"No, Bud. This end can't be disconnected without the chance the tether would just get sucked into the wormhole."

They chose to work through the last rest break and got the entire system back in place, sealed and tested as their chronometers tapped them in the wrists announcing the twenty-fourth hour had arrived.

Back inside, Tom decided that as much as he would love to see his wife, and knew Bud wanted to be with Sandy, they needed a rest break before accelerating away and having to put up with eight more days of high-Gs.

During the break Tom tuned into the transmissions from the probe and began watching the video. It was a good thing he did as he was forced to make several corrections to the new focus before he was certain he was getting the full capability of the camera. And, this absolutely had to be accomplished while they were within wireless distance from the transmitter.

Tom spent most of the first day of transit back to Earth glued to the transmissions from the probe. He recognized some of the signs

of an impending reversal of the oddball black hole—an impossible feature according to all “experts”—but detected no signs of the ghostly pair of hands that had finally lured him and Bud into the hole just as their ship’s energy and breathable air ran down to zero.

Twice he spotted something he could not bring into focus due to the distance it was from the camera in the other galaxy, but without clarity all he could do was see that it was of a light color, appeared to be either rectangular—opposed to square or an orb—or pointed, and was under some sort of control. This he knew because it changed directions periodically.

As the realization he could possibly be watching the *Galaxy Traveler* during its first and only visit to that solar phenomena sank in, he began scanning more of the area in an effort to find whatever it was that allowed him to see—evidently—back in time.

Try as he might, there was absolutely nothing there!

CHAPTER 8 /

SORRY. WE CAN'T MAKE THAT ANY MORE

BEFORE LEAVING the probe, Tom disconnected the *Galaxy Traveler* from the supply rocket and directed that vehicle to start its slow fourteen-week trip back into Earth orbit.

As they set out on their own, much faster, trip back to Earth, Tom was more puzzled than before. Where he hoped to be able to detect some sign of what could cause the time... well, he was starting to think of it as a *fluctuation* rather than many other descriptives... he was not completely unsure if it held any possibilities in this solar system.

This was a position of uncertainty he loathed. Bud, who had known the inventor nearly nine years by this time, recognized the pensive scowl on his buddy's face and reached over to pat him on the forearm.

"I'm not going to be a great help, like usual, but tell me what to do and we'll get this figured out, Tom. Honestly," Bud offered.

With a rueful chuckle, Tom had to shrug. "Nothing to do when there is nothing to see. That white pip very well could have been... or is... or whatever, but it might be *this ship*."

"And, you believe that is either the most fascinating thing ever, or you are positively aching to find that it is something entirely different. In either case you want us to go look. Right?"

Tom rubbed his chin in thought. Bud kept quiet while he pondered things.

Finally, he replied, "That's a very good and astute question, flyboy. On the surface while I do think the possibility of what appears to be time shifting, or travel, or dilation of some sort, could be an incredible boon to mankind, my brain tells me that such a capability could be ultra dangerous. As in, it could be used for terrible purposes. Hate someone enough; go back in time and kill their parents. Know about a stock that soared on a specific day, go back a week earlier and buy up every share you can."

"Ahh. Or, do that thing like in the Bradbury story in which a time tourist steps on a prehistoric butterfly and when he gets back, everything is different."

"Yes. I think that was called *The Sound of Thunder*, but it was all the genesis of what's known as The Butterfly Effect. Do something far enough back and it snowballs into a chain of events. Something

like that happening is one of the time traveling conundrums. That, along with if you go back in time and accidentally kill your father as a child, will you just disappear because now you would never have been born? Could you have been born in the first place because your father died before you could be conceived? So, could you have every gone back in time if you didn't exist? And, on and on."

"Yikes!" Bud said, looking disturbed. "Now I can see why you might just want to leave this alone. But... what if you do find out what makes it work? If you thought it could be kept safe and in your hands, would you toy with it?"

"I honestly don't know, Bud. Back when we were teens I'd jump on the opportunity, but now..." He paused a moment thinking about his wife and unborn child. "I'd like to see if simple uses might be made, more like parlor tricks of the, 'There is nothing in my hand, and Presto! Observe this simple glass ball...' sort where perfect timing and set-up in the future so that the orb gets sent back to precisely that point where time and space come together."

"Swift-o The Great!"

"It is an act that would wear thin pretty and pretty soon, Bud. I do think that having the ability to briefly study this phenomenon might help me author one or more papers on the theory of time travel. Perhaps something a future Tom Swift might put to proper use when the time is right."

"Time is not on your side now?"

"I don't think so. But," Tom brightened, "at least dad and I and perhaps some others can observe what's going on a bit better and make a good, educated decision about what is happening. For now, I suggest we take those sleepy pills Doc Simpson gave us, take a fifty-hour snooze, and let the ship hit 4-Gs so we get home a day or so earlier."

"Here, here!"

The ship was programmed to take the best and most favorable route to Earth, and when the boys slipped into sleep it had already plotted the point where the turn-over would occur. By the time they woke up, the ship would be in reverse position, pouring out the power and slowing down at about twice gravity.

The ship would arrive at the new station twenty-three hours earlier than expected.

They docked at the new station and entered via one of the numerous airlocks now available at the end pointing away from the rotation of the Earth, far below them. With the station's shape being a slowly spinning drum, once they stepped inside, very near the central rotation point, both of them felt the loss of gravity. Only at

the outer shell did the apparent gravity nearly 80% that of on the Earth allow people to live and move freely. Tom and Bud floated hand-over-hand to the railed observation platform and looked out at the scenery in front of them.

There still wasn't enough atmosphere to support animal life, and the temperature had only reached about forty-three degrees, but there were signs of life everywhere. They opened their helmets and slipped on oxygen concentrating facemasks that would provide what they needed for the few hours they would be there.

Arching above, below and to the sides of them were buildings and green areas and the start of orchards and even small helicopter pads that accommodated one- and two-man electric mini-copters to allow people to quickly get from one point to another. Of course, only a select number of people had been given a license to fly up here; it was completely unlike flying on Earth as you had to take into consideration the curvature and spin and the varying gravity to keep from having an accident and to get where you wanted to go.

They soon took the elevator to the "ground" and headed for the Administration structure. Entering through the main doors Tom acknowledged the young woman sitting at the front desk.

"Hello, Nancy," he said with a nod. "The boss in?"

She smiled back at him. "I thought *you* were the boss, Tom, but our very own Mr. Wiltessa is in his office. Want me to announce you and Bud?"

"No. Unless you tell me he's with someone or on his TeleVoc about something important..." She glanced down at her monitor and shook her head. "Fine. Then come on, Bud. Let's go see Art!"

A long time Enterprises employee, Art Wiltessa was one of about a hundred men and women who could be considered all-arounders. Skilled as a pilot, submariner, deep sea diver, astronaut and now as the Administrator and this quarter's commander of the new space station, he had been an obvious choice by Damon Swift to become the first official commander. Having just taken over from Red Jones the previous week, he would be in the station during its final push to complete all work and become fully occupied—something that would happen in about another year.

After that, and once the old Outpost was decommissioned, that commander, Ken Horton, would rotate with Art each taking a half-yearly stint as station commander.

"Well, hey, skipper. Hey, Bud," he greeted them popping to his feet and reaching out a hand. "We heard you were due in a little early. Didn't realize it would be a full day. Good trip?"

“Couldn’t wait to get home to the girls,” Bud said with a grin.

Tom told him about the odd and disconcerting sights at the other end of the wormhole.

Art whistled. “Well, we all knew from your sighting of that backwards-running black hole that things were more than slightly strange out there. What do you think this new stuff means?”

Tom scowled. “Well, and this stays only between we three, Art, but something looking suspiciously like the *Galaxy Traveler* can be seen out there maneuvering around.” Seeing Art’s jaw drop, he added, “We don’t know exactly what that is and the resolution of the video we’re getting, even with the new electronics Bud and I delivered, so I can’t say for certain it is or was us. Heck, I can’t say for certain if it is some sort of phenomenon looking back in time, ahead in time, or even into an alternate universe!”

That was obviously not something Bud had considered and now his head swiveled to face Tom, his eyes wide with questions.

“Jetz!” he said as his breath whooshed out on surprise.

“What can you do to find out?” Art inquired.

“I think the first thing is to go back through the wormhole and see for ourselves. That, however, isn’t going to be easy as I understand our supply of anti-matter might take a back seat to other projects. We’ll have to see once we get back on solid ground.”

They remained at the station a full day—the station ran on a 24-hour clock set to Eastern Time Zone just like Enterprises. During their stay they walked all over the station admiring the work that had been completed and seeing the enormous amount of work still to be performed.

All too soon it was time to get some sleep and then head back to Fearing Island. Since the *Galaxy Traveler* was only meant for use in the vacuum of space, they awaited the arrival of Tom’s *Challenger* ship to transport them home.

With Red Jones and Zimby Cox at the controls, the repelatron-powered ship zoomed down setting onto the tarmac at Enterprises only long enough for Tom and Bud to disembark before heading for its permanent berth at Fearing Island.

They hopped into their own cars and raced out the gate and to their homes and wives.

It was just going on ten the next morning when Tom walked into the shared office. After a short discussion with his father, he sat at his desk and picked up the phone.

“Trent? Can you contact Fermilab in Illinois, please? Craig

Peterson if he is available.”

Three minutes later the intercom buzzed. “Line five, Tom. It's your Mr. Peterson.”

“Thank!” Tom pressed the button, “Craig? Tom Swift. How are you doing these days?”

“Well, well, well. Tom. Nice of you to call, Is this a social call or do you want something of me?”

“That's pretty straight and to the point, Craig. Is there something the matter?”

Peterson sighed. “No. And, sorry. Things are pretty tense here. We're waiting for word to come down from on high to decommission the entire facility and all go find other jobs.”

This shocked the young inventor. He had believed the lab and its nuclear facilities had recently been given a reprieve with several new Government contracts.

“I'm sorry to hear about that. I was hoping to come out in a few weeks and pick up some more of that special stuff your people made a couple years ago. You see, I am planning a return visit to a very special place and really need it.”

“Sorry to tell you this, Tom, but Fermilab can no longer provide you with anything, much less that *special stuff* we made back then. Our equipment is totally offline now and some of it has been cannibalized for other facilities.”

He told Tom about how it all went steadily downhill from the day they shut down their small Tevatron accelerator once the Large Hadron Collider had been reopened after its fifth major retrofit. That plus orders for weapon-grade nuclear materials had all but dried up in recent years.

“What about those two or three contracts your people made such a big deal about?”

“Given and taken away all in the same month, Tom. It was a left hand, right hand cock up. The business office was pushing for the contracts based on old info, all the while the operations end was selling off the equipment we needed to perform those contracts. The very thing keeping us alive, barely, also shot us in the foot over what we needed to stay in business.”

Tom decided he could trust both the telephone line as well as his friend, so he told Craig what this was about.

“Wow, gee, golly, and holy samoley, Tom! That's incredible! Now you have me a little angry with the idiots that shut us out of the very business we were built to service. But, all I can say is that I am

sorry. No wait! I can also pass on the names of five or six key people who could, with proper funding, take what we have left, rebuild it in another location, and get you all the material you can possibly want.”

Tom's pulse was racing. In his wildest dreams he had hoped Enterprises or the Citadel might set up a nuclear accelerator. It was the one thing missing in the business of providing nuclear power and also in research.

“I'll take those names but also ask you to see if you can halt the rest of the tear down and sell off, at least for a week.”

Peterson promised to do his best and offered to send the names and some contact information by email in the next two hours.

After hanging up, Damon came over to Tom's desk.

“I have the distinct feeling you need to talk to me about something vitally important. Possibly something that is going to mean I need to open the company checkbook and rent, lease or purchase a new toy for my favorite son.”

Tom grinned a little embarrassed at his father being able to read the situation as accurately as he had based on only one side of the conversation.

“Yeah,” he admitted before launching into a description of what he wanted to do at the wormhole as well on the other end of it.

“We need to have that anti-matter to open the hole large enough for the *Galaxy Traveler* to pass through. The first charge can be placed by another ship to get us there, and the ship can carry three other charges. That's one for the return plus a pair of spares. And, I promise that Bud and I will not venture close enough to the black hole to get ourselves into trouble.”

They continued to talk about every aspect of such a mission over the following hour.

“You do understand the enormity of what you are proposing to do, don't you, Son? The risks involved both personally in you going back through the wormhole and the chance of setting in motion something that cannot be stopped that could prove disastrous?”

“Yes, I do,” Tom declared emphatically. Father and son had been sitting in the conversation area of their shared office talking about the many aspects of attempting to go back to the place where Tom and Bud had nearly perished—and nobody could adequately explain why they had not been lost and how they got back in Earth orbit!

“Well, I have to say I am possibly more interested than you are about this apparent time travel that has happened. What intrigues

me even more is the possibility that it isn't a backwards look but a forward one.”

Tom's eyebrows shot up. “Do you think that’s a possibility? How do I prove it?”

Damon smiled and said it again. “I'd start by taking all video you have from the latest sighting on the other end of the wormhole and then take the maneuvering records you were able to save from the *Traveler* when she came back mostly wrecked. See if you can match them up. If you can, I'd say that almost conclusively indicates a backward look. If you can *not* line them up, you need to be open to the possibility that you were looking forward in time to a point where you are back at the other end of the wormhole.” He looked at his son with as meaningful a face as he could manage. “That would certainly answer the 'do you go back' question.”

Slowly, Tom realized the enormity of the potential truth his father had just outlined. They looked into each other's eyes for quite some time before Tom blinked and nodded.

“I'll get started on that right away. And, Dad?” Damon looked Tom. “Thank you for your insight. It will probably prove to be a turning point in all this.”

“It's what fathers are supposed to do for their children.”

Tom started to reach out to give his father a handshake, but turned it into a warm hug instead.

Once he sat back down at his desk, Tom saw that Craig Peterson had come through for him. A detailed email was waiting with the names, contact info and links to each person's on-line credentials. When Mr. Swift excused himself for a meeting and left the office, Tom began calling the different people.

The five men and one woman all were receptive to coming to Enterprises to discuss what might be accomplished. Within the hour a joint meeting—set for one week later—had been agreed to by all. With all but one still living in the Batavia area, a single jet would be sent to pick everyone up.

What he had not expected was to find out that Craig Peterson might not have been fully aware of some other plans for the Fermilab facility. Still a governmental site, only one area was being dismantled... Peterson's. Other areas were still in full operation, but none of the displaced technicians could shed light on what would still be going on at the other labs.

During the week before the meeting could happen, Tom decided to spend some time out at Fearing as his newest ship was being constructed.

Codenamed *Goliath*, it was a monstrously giant ship.

But, that brief description didn't do it justice.

Not shaped like a rocket and not a cube-inside-rails like Tom's *Challenger*, *Goliath* stood a full five times taller than that very large space ship. If described as “an inside-out ship,” that would come closer to the truth. At the lowest part was a domed structure inside a matrix of braces that housed the main drive, an incredibly large repelatron dish topped with a nuclear reactor to power it and the necessary mechanisms to aim it.

Above that were more structural beams and braces on top of which was mounted a 250-foot-wide, 1-foot-thick circular platform. And from the very center of that rose a 15-foot-wide elevator shaft going up another 220 feet. Atop that sat the control structure with the appearance or being more like an old-fashioned water tower than anything associated with space flight.

The key to the ship was that wide platform. Tom's designs called for it to be multipurpose to the point where just about anything that might fit could be attached to it and flown into space. More than just heading into orbit, the entire ship was built to travel to the farthest reaches of the solar system and even out into the near void where there lay several theorized minor planets traveling in centuries-long orbits around the sun.

As Tom and Bud came in for a landing, *Goliath* was the largest single structure visible slightly dwarfing the huge rocket assembly building along the western coast of the island.

“Beat me with a spatula and call me cake batter, Tom,” Bud exclaimed. Seeing Tom's quizzical look, he added, “I'm trying out other things besides my typical 'Jetz! Like it?”

Tom shook his head. “Sounds too put on, flyboy. Stick with 'Jetz.' But I know what you mean. She's almost too large to get a mental grasp on!” He tilted his head toward the *Goliath*. “Plus, she doesn't look like she would ever fly, but all the simulations point to using one little trick and then she should be amazing!”

“One little trick?”

“Yes. Start slow until you reach about seventy thousand feet and the air thins and then you can go all out. It's the need to get past that first slow six or seven minutes so the platform at the halfway point doesn't cause too much drag and instability.”

The SE-11 jet they were flying in made a final sweep around the island and came in for a landing. After they taxied to the parking spot reserved for Tom and his father next to the tower building, the boys hopped into a waiting jeep and headed out toward the *Goliath*.

Even at this distance of about two miles, she looked positively huge.

As they neared their destination, Bud asked, “So, how can this monster help us with your plans to go back through the wormhole. It's too big, isn't it? Or, does one have nothing to do with the other?”

“Oh, it certainly does have something to do with the wormhole. With the possibility that we can't simply buy antimatter any more, we might just have to make it ourselves.”

“Oh. So?”

“So, why make it here and take it up with us when we can simply take the factory to the wormhole and make it out there?”

“*Jetz!*”

CHAPTER 9 /

GOLIATH SHAPES UP

TOM AND BUD climbed out of their vehicle and approached one of the four built-in ladders that were part of the superstructure surrounding the lower half-domed drive unit.

“I'm afraid it's us in for a goodly climb for now, Bud,” Tom explained as he reached for the ladder. “Eventually I plan to build in a sort of elevator that can be lowered down from just below the platform, but that's weeks away. Up we go!”

They climbed vertically the initial thirty feet before coming to the first transition point. Here, the closely spaced structure gave way to a more lattice-like structure of interlocking triangular braces. At this point the rungs of the ladder became slightly wider steps that were only nominally easier to navigate. About three-quarters of the way up to the top of the dome was a ring about four feet wide that sat just below the next transition point back to vertical.

They took a three minute break on the ring and sat admiring the view. From here they could just see the east coast of Georgia some thirty miles away. It was a wonderfully clear day so their view was unobstructed. Bud pointed to a jet that must have just taken off from the Savannah International Airport.

While they watched, it wheeled to its right and headed south, remaining out of the restricted airspace that surrounded Fearing Island.

Once a scrub grass covered stretch of sand just thirty miles from the Georgia coast, Fearing Island had been suggested to Damon Swift some eight years earlier. He arranged with the U.S. Government to take out a lease on the low island in return for turning it into a usable piece of property. Over the years his plans had gone from a launching facility for his first major rocket, the *CosmoSoar*. He had spent the enormous funds necessary to turn it into a combination air base, submersibles assembly and launching facility, and spaceport.

As technology advanced and the Swifts began producing secret products for the Government, the airspace above and around it had been classified as “No Fly.” To back this up, Tom—Damon's son—designed and constructed a series of automatic drone aircraft that could intercept anything from slow-moving propeller aircraft to incoming missiles and either deactivate them or force them to land on one of the two runways on the island. Those drones became the

de facto standard for airspace security around all Swift facilities.

It became time for the young men to resume their climb. This next stretch of seventy feet was straight up, but once they reached the top they came to a hatch. A simple press of a button opened that hatch and they were soon standing near the middle of the enormous disc.

“Said it before and have to say it now, Jetz!” Bud exclaimed, the last part coming out in an awed whisper. He looked all around them. At the very edge of the circular platform he could see the safety railing that stood some four feet high.

On seeing his friend trying to figure out something about the barrier, Tom told him, “That railing drops down flush with the platform once we take off.”

Bud grinned. Leave it to Tom to know just what he was thinking.

They walked around the disc while Tom described how a new tie-down system could pop up places to fasten just about anything and at just about any point.

Finally Bud pointed up. The control room appeared to be about fifty feet wide and at least twenty feet tall. “Do we sit up there?”

Tom nodded. “We do, as well as a crew of up to fifty when that is necessary.” He explained that, like the *Challenger*, the control structure was multi-level. In this case two fully livable levels plus a 5-foot space above the top for electronic equipment and some of the environmental systems.

“If need be, the entire top structure can detach and fly on its own, even down to a planet or lunar surface. Plus, she will carry four small one-man spaceships based on that small space speedster Dad created earlier this year.”

Bud nodded. “Sign me up to be the first to fly one of those!” he declared. He had more test pilot hours in them than anyone else, but loved flying anything.

Built for the French Space Agency, Damon's mini-spaceships were only three feet across, three feet tall and fifteen feet long. Powered by a super-efficient ion drive and with fuel enough to fly around and assist in building the French Space Station—their original purpose—for up to three days at a time, they were not speedsters out of the gate but a test showed they could get up to over 150,000 miles per hour within five hours. Each were meant to hold a single pilot in a deeply reclined seat and carry or haul around supplies and building materials in space.

These newer versions had none of the cargo hold-down points

and were slightly larger inside, but were of the same slightly arced design that made them look like fancy space racing cars.

The young men walked back across the platform to the central tower and entered the elevator as Tom kept up a running dialog of information about the ship.

“This elevator takes up only thirty percent of the shaft, and the structural components take up another twenty percent. That extra fifty-percent of the tower contains everything from those four one-man mini-ships up at the top to the water and air recirculation systems in the middle to spare components lower down. I figure that if need be, a fully outfitted mission could overcome near total damage to the main repelatron by using most of the spares we will carry to rebuild it.”

Bud looked worried about something.

“What?”

“Well,” the flyer responded, “what if we do lose the entire repelatron array? If it can't be rebuilt, then are we stuck? I only ask because you generally have multiple backups of things.”

Tom chuckled. “You're so right. And, yes, we do have a backup plan. Or will. You see, under the platform will be a cone. That will be constructed on-site in about a week. Inside the cone will be both an emergency power supply as well as a trio of smaller repelatrons. Those will be about the size of the ones we have on *Challenger* and should be capable of moving the ship at fairly high speed. It'll just take a while longer to get there. Same ending top speed achievable in about twenty hours as opposed to getting to that speed in forty minutes using the giant drive unit.”

The elevator had arrived and the doors opened during this conversation, and they now stood on the lower floor in an open area thirty feet wide. Surrounding them were about two dozen hatches/doors at regular intervals.

“Those are the living quarters for the extended crew,” Tom explained. “Two to a room with a shared lavatory for every two rooms.”

They looked into one and Bud grinned in appreciation. Along with two comfortable-looking beds were a pair of acceleration couches that Tom said could be repositioned to be easy chairs for watching the shared video screen on the outer wall. Each bed had a desk with computer terminal, a bookshelf and storage drawers for personal items. A tall, thin upright locker sat on either side of the door that Bud correctly assumed would be where space suits were stored.

Walking back to the common area, Bud had to stop. Where the elevator had once been was now a circular staircase up to the main flight level.

Tom explained. “The elevator is wasted space when not in use so it simply eases back down into the floor. That staircase folds like origami and comes down to provide easy access to the upper deck. Speaking of which, let's go up.”

Bud needed no encouragement. He trotted to the stairs and pulled himself up and around getting to the top ten seconds before Tom's more leisurely pace brought him to the upper floor.

Differing from the *Challenger*, the upper floor had no large view panes to look out through. Instead, all around the central control room—having the same dimensions as the common area on the deck below—any part of the wall not covered with equipment were a series of high-resolution monitors showing nearly a 360-degree view all around the ship.

They were currently blank but Tom reached over to one of the control stations and laid his hand on a small panel.

“*Recognized!*” came a computer voice that Bud had to laugh at. It sounded almost like Tom's wife, Bashalli.

Tom pressed a switch and all the monitors around them came to life. The view was breathtaking and the nearly 150-degree vertical view was a bit startling.

Most of the systems were familiar to Bud. They were either modeled on those in the *Challenger*, or those found in Tom's small flying saucers. And, like those saucers, the pilot could control all flight systems by voice commands alone.

Bud nodded up at the ceiling. Spaced about every three feet was a grid of one-inch-wide emitters that were part of the gravity system on board. Anyone wearing an under-suit designed with thousands of micro metallic fibers woven throughout would feel apparent gravity close to Earth-normal as the system of tiny repelatrions pushed down only on those fibers. Because the suit surrounded the body except for head, hands and feet, the wearer felt a gentle push down that was spread out over the entire body.

It wasn't exactly like gravity, but the effects were the same and allowed everyone to function normally without any inconvenient floating around.

The boys had worn such under suits the first time they entered the wormhole. Over the multi-week voyage it had helped them keep muscle tone to near-Earth standards.

Tom was about to explain some of the new operations stations when his face went blank. He reached up and tapped the TeleVoc pin under his right collar. Bud stopped talking once he realized the inventor was receiving, and answering, a totally silent call from someone. Finally, Tom nodded and tapped the pin again.

“That was Mike Dickerson in Communications. Harlan Ames is calling on one of the scrambled Private Ear channels. I have to go to the command building but you are welcome to stay here.”

“Not on your life,” Bud replied. “I might get the notion to turn everything on and take her for a little spin. So, no... I’ll come with you.”

They walked down the central stairway. Part way down, Tom said, “Call elevator.” They stepped off the stairs and retreated a few feet away. The stairs rose and folded up as the elevator came back up through the floor. By the time they exited onto the central platform, a strange vehicle was waiting for them. Its driver—a man Tom recognized as one of the Security men at Fearing—waved at them.

“Harlan heard where you two were and suggested haste was in order. Climb on!”

The mode of transport was a variation of the *Straddler* used on the Moon and on more recently on Mars to carry people and supplies from place to place. This one, a six-man model, had been upgraded so it could overcome Earth gravity and carry up to fifteen hundred pounds. It was more like a giant motorcycle than anything else with six saddles arranged one behind the other.

They got on and were soon sailing out over the edge of the platform. Anyone not familiar with such maneuvers might immediately become disorientated, but Tom and Bud were used to this. The *Straddler* raced across the island, crossing the two runways and a variety of one- and two-story buildings before arriving at the main Administration building.

As gentle as a feather the pilot touched down and the boys jumped off. As they ran to the building Tom called back a thanks over his shoulder. The pilot gave a friendly salute and took off to put the device back in its storage building.

Harlan's face was looking at them from the 3D Telejector-generated picture floating above the conference table in one of the communications rooms.

“Glad you could get here fast, Tom,” he said with a grim grin. “We’ve had another incident. If you recall, we had the communications satellites shot out of the sky presumably by that

ex-patriot Frenchman, Lacrobat.”

“Absolutely. I recall that all too well.”

“Right. Well, you got those replaced, and this Lacrobat evidently discovered he could not shoot those new ones down. So, he did the next worst thing. He shot down one at either end of those three replacements. The only good news is that with the new satellites able to bridge at least a single satellite gap, communications hasn't gone down, but it is infuriatingly slower!”

“Can't the Chinese government do something about him?” Tom asked, anger evident in his voice.

Ames shook his head. “It's not in their interests to antagonize him. They get some extremely important food crops from his little sub-nation. Plus, with their own satellite communications system in orbit, they probably either don't care about the rest of the world, or might even actively be behind the downings. We just don't know their intentions. The diplomatic route is getting nowhere. What we do know is that it is going to be necessary to put at least two more of your versions of the replacement satellites up there. I only wish there was some way to put up tracking satellites aimed at Lacrobat's territory so we could go to the United Nations with proof of where these missiles are coming.”

Tom nodded at the Security Chief's image. “Ask dad to get the ball rolling on at least the missing two and even a couple extra if he thinks we can get them paid for. Once I get back to Enterprises—and Bud and I will head home today instead of the end of the week—I'll get to work on something to do that tracking you want.”

After concluding the call, they went to the Operations department and had a brief meeting with the head of the *Goliath* project, Brianne Soderberg.

She acknowledged her excitement about the advancing progress of the ship. “She's going to be ready in another seven weeks, Tom, not the four months or more we originally thought. Your idea to use the Durastress/tomasite honeycomb panels in all bulkheads and the platform not only cut down on the total weight—and she is going to come it at slightly less than the *Challenger*—*Goliath* will be nearly twenty percent structurally stronger than the original plans.”

Bud looked from Tom to Brianna. “Wait. Lighter than the *Challenger*? How is that possible?”

She laughed. “Well, Bud, the stainless steel circular cage for the *Challenger* weighs in at a whopping ninety-two tons! The living quarters box is another nineteen tons, and all the repelatron emitters plus the wiring and everything outside come in at six and a

half more tons. That's almost one hundred and eighteen tons. Or, for every square foot of structure, inside and out, that is an average of three hundred pounds of weight. *Goliath* is made from some of the lightest yet strongest materials and even though she is seven times larger in square footage, that weight is just thirteen pounds per square foot! *Goliath* is one hundred seventeen tons.”

She promised to send Tom a video report every two days to keep him up-to-date on the project.

“Thanks. I have a feeling I'm going to need her sooner than I thought,” he mentioned before they left.

The flight back to Enterprises was fast and mostly spent in silence. Before landing Bud asked the obligatory question, “Anything I can do to help?” but Tom had to shake his head.

“Not really. At least not this week. I've got a lot to do and next week might want to offload some of the repetitive and more mundane things. So, if you are willing...?”

“Willing is my middle name,” the flyer said.

“No, it isn't, but I appreciate the thought,” Tom replied, grinning. “Go take my sister out to dinner and I'll talk to you tomorrow.”

While Bud headed for his office in hangar six and then to his car, Tom went down the stairs to his underground office and lab next to the floor of the hangar where his *Sky Queen* was kept. He patted her under the nose and headed for the office door.

A message was waiting from his father on his screen:

Son,

Funding approved as per Sen. Quintana. Build six (6) new ones. I've started ball rolling so you only need check in with Hank S tomorrow. Harlan tells me you want to add new surveillance equipment. Also to add on three up there? Let's discuss tomorrow. 10:00 do for you?

Dad

PS— — — GO HOME!!!

Tom had to chuckle. His father knew him all too well. He sent an acknowledgement about the meeting and headed home.

Bashalli practically threw herself into his arms.

“I'm so glad that you are home, Tom. I dreaded sleeping alone for four or five nights.” She released him saying, “Get ready for dinner. Once father Swift called to say you were coming back I came home

early and put a leg of lamb in. It will be ready in fifteen minutes.”

He went upstairs, washed his hands and face and put on a clean T-shirt. Back downstairs he walked into the kitchen in time to watch his wife pulling the roast from the oven. The aroma was incredible. He waited for her to set the scaldingly hot roasting pan on the stove and step back before encircling her waist with his arms.

“I love you, Bash,” he told her. “I thought roasting meat smells made you sort of, well, ooky feeling.”

“I know,” she replied over her shoulder. “And I love you. And, they do, but not lamb, at least not today. You get out the carving set and sharpen that knife. I’ll bring this to the table in five minutes.”

Dinner was spent with Tom describing the frustration the world was having with this Lacrobat individual. When she asked why the U.S. could not just go bomb him he had to remind her that was not the way Americans did things.

“There is also the fact that his land is actually part of China. Besides, although there are a few photos to suggest that missiles were used in the first set of shoot-downs, there is nothing to tie them directly back to his small corner of China. It is mathematically provable, but not in terms the world court or even public opinion can absolutely pin this on him.”

He then told her about the hope by Harlan Ames that some sort of surveillance system might be added to the satellites. When she agreed and asked how, he shrugged.

“I’m not completely certain right now, but I am leaning toward planting a special new satellite directly over his head. Well, not right over it as that would be impossible to maintain in that position, but over the equator and pointing right at his little area of the world.”

Over the next three weeks Tom supervised the finalization work on the systems software package for *Goliath*, approved more than five dozen small changes suggested by Brianna Soderberg and her team, and worked closely with Hank Sterling on building the replacement satellites.

He also brought Hank up to speed on the need for the special surveillance satellite.

“Well, there is a recently declassified technology that allows twenty-four hour visual contact with anything not covered by clouds or other weather. If you were to take your SuperSight technology, and its ability to look through anything with moisture, and mate it to this older CIA satellite capabilities, I’m thinking there is a chance

to be able to get a good look at things in that little corner of the world at all times.”

“And,” Tom picked up on the idea, “if we add the ability to track and keep high-res video of anything suspicious, and then download it using Private Ear Radio technology that cannot be intercepted or detected, we can get that info back here in a few seconds. Okay. What is the name of that technology and do you know who I might contact?”

“It was called, at least originally, GAMBIT. That morphed into something they called HEXAGON, but most recently it had a new name. I've also heard it referred to as CRYSTAL. I recall they used a stereoscopic camera to provide increased detail. As to who you might call, why not try John Thurston at the CIA?”

Tom mentally slapped his own forehead. Of course Thurston would be a great place from which to begin.

When he arrived at the shared office, Trent reminded him about a new meeting he had with four of the possible nuclear candidates from the Fermilab group. The first meeting had gone very well, and these four had emphatically agreed to move to Shopton should the jobs become available. Shortly after that, Craig Peterson had called to tell him that Swift Enterprises could purchase the remaining equipment and the actual collider structure at junk rates.

“We don't have anyone else willing to take technology this old, to be frank,” he had admitted. “Seems the first ten-grand buys it all!”

Arrangement had been made, a purchase order created, and the first of the equipment would be picked up the following week.

This meeting was to finalize plans to hire the team of four and to set down requirements for the support team they would require.

“Remind me when they are due to arrive,” he asked the secretary.

“One hour and...” Trent looked at his watch, “...eleven minutes. In the meantime, your father would like to talk to you.”

Tom entered the office and crossed to his father's desk. When the older inventor looked up from his screen, he grinned. “Ah, Son. Good. Take a seat and I'll just mark down a couple small details.” He went back to his screen and keyboard, but a minute later pushed the keyboard to one side.

“Okay. I know you've got the collider team coming in, and I also know you want to move forward with all this. Toward that end I have some good news. If you are willing to take a small scientific team with you to the wormhole—mostly NASA and MIT scientists—so they can study the hole itself, both outside as well as inside, they

will pay all the costs associated with our rebuilding the collider, hiring the staff for the first year, and creating the necessary magnetic containers to hold the antimatter during the trip. What do you think?”

Tom was pleased, but knew he had to tell his father one important thing.

“We aren't going to need to carry around the volatile antimatter, Dad. Not if you agree with a little adjustment to my plans.”

Mr. Swift looked at his son and rubbed his chin. It was a trait they shared when contemplating something. Finally, he blinked and looked at Tom.

“What would that be?”

“I want to rebuild the collider and all the supporting equipment, but not permanently out at Fearing Island.”

“Surely, not here at Enterprises! I don't believe the NRC would stand for that. They're only *just* saying yes to the Citadel.”

Tom smiled. “No. Not here either. What I plan to do, with your permission, is to build all of that right on the platform of *Goliath*. I want to make our potential supply of antimatter up into space. And,” he said before Damon could object, “by only starting and using the machinery in space, the NRC can have no objections.”

“And, no control?”

Tom nodded. They both knew that Nuclear Regulatory Commission rules and limits had almost killed the Citadel on several occasions, and neither man particularly liked or trusted the people who were currently in charge.

CHAPTER 10 /

DWARFING THE *CHALLENGER*

EVERYONE AT the meeting was enthusiastic about the possibilities of operating a powerful collider in the micro-gravity of space. While amazing things had been discovered about the makeup of energy and matter down on Earth, the fact that gravity exerted an influence had long been known to keep certain types of experiments in the theoretical rather than the practical.

Here was going to be their opportunity to do things no other scientists had ever been able to perform. And, for at least two of the people, a dream come true of becoming a qualified astronaut!

“Of course,” Tom told them all, “you must pass both a fairly rigorous physical and a two-day training program that includes artificial weightless training.”

“You mean like that jet, the old 'Vomit Comet' we've read about?” one man, Jason Shears, asked.

“No. Better. We have a chamber, built years ago—updated, of course—that actually lets you float around down here. You wear a special suit and a series of emitters attract you all around giving the impression of zero-G. Computers keep track of where you are inside and adjust the emitters so you don't get pulled in any one direction no matter how close you get to a wall. We don't care what your reaction is to fifteen-seconds of experience at a time. It is basically meaningless. We want to know how you handle three or even four hours of it.” He grinned at them. “Besides, it's an absolute blast!”

They completed the meeting with a promise from all four of them to be at Enterprises' front gate, ready to become employees, in two weeks.

“I'll see you all then,” Tom promised. “In the meantime, see if any of your former colleagues might be more interested now that a few weeks of not working have gone by. I'd really love to put together a core team of eight of you former Fermilab people and then fill in with specially trained Enterprises employees. I'd like to get things rebuilt and up and running in as little time as possible.”

Once they left, to be flown back to Illinois in an SE-11 by Bud, Tom made a call to their CIA friend.

“Well, hello there, Tom,” John Thurston greeted the inventor once he managed to get through three call interceptors determined to let almost no calls pass. It had only been after invoking the name

of Senator Peter Quintana that the last of them connected Tom with Agent Thurston.

“Hi, John. You may already now about some of this, but I need to tell you a few things and try to get your help.” He detailed the satellite situation and what he intended to do about it. Once John agreed he understood the matter, Tom went into explaining how he intended to develop some method of tracking the incoming missiles no matter what the light or weather situation.

“We have our SuperSight that those stratospheric blimps you use to keep watch over certain areas use, so you should understand what we have. But, what we are missing is what you folks recently declassified.” He mentioned the code names.

Thurston laughed. “Is that all you want? Heck, Tom, I can have the entire set of designs sent to you this afternoon. I thought by mentioning Pete Quintana's name to my assistant that this was going to be one of those, 'Sorry but it's really, really classified' things. It isn't. I have to tell you that the company that precision ground the lenses for our systems went out of business years ago, but I might be able to put you in touch with their Chief Technician. Fellow name of... oh, what was that man's name? Ah, yes. Gudegast. Hans Gudegast.” He spelled the last name. “Son of some famous German actor by the same name. Anyway, he's still working in optics. We use him occasionally for, well, various things I am not at liberty to discuss. I'll get all that info out to you in the next hour. I might even make the overnight delivery service pick-up time.”

Tom thanked him and agreed to pass on the agent's regards to his father.

After the call he went back to work with Hank Sterling. The big Engineer, and head of the Pattern-making department, had made great strides in pulling together the remainder of the satellite equipment Tom and Bud had retrieved previously. Along with his meticulous set of measurements, he assured the inventor he could begin producing the skeleton for the new units the following morning. When Tom reminded him that would be Saturday, the big man blushed.

“Shucks, skipper. I thought you needed them pronto. If I can have the weekend off I'll get going first thing Monday.”

“That will be absolutely fine, Hank. By that time I may have the old CIA satellite system details in hand. Then, we'll see what we can cobble together.”

When Monday came Tom walked into Hank's large workshop to find what looked like the tubular frame from an old dune buggy sitting on a workbench in the middle of the room. A young woman

was standing next to Hank who Tom recognized as one of the ladies who worked in, and operated the equipment, for Enterprises' Solar Power department. Formerly a separate company that had worked from a traveling factory inside a large bus, several of his father's projects had used them and the mutual decision to have Enterprises buy the company had been reached at least a year earlier.

Noticing Tom, the woman touched Hank's forearm, smiled and started to walk away.

"Hey, Patty. Not so fast," Tom called out, making her stop. "I'm guessing Hank has you primed to make more solar covering for our satellites, but I have a small side project for you guys if you have a moment."

She smiled brightly. "Of course I do, Tom. Name it!"

The inventor suggested they all take a seat.

"Now, what I've in mind has to do with a small part of our new giant space ship. You won't have seen it, but you may have seen the part I'm thinking about. Dad's little space racers. What Bud calls the *Starlight Expresses*." It was one of the names the flyer had given the small spaceships.

"Sure. Great little runabouts from what I hear. So, what can I or we do for those?"

"I want to make the ones we are building to go in the *Goliath* capable of flight inside an atmosphere and that means adding wings. Fold out wings so the ships can still fit into the four landing pod areas of the central shaft we've already built. That is not quite where you come in, but I also want to add solar cells to the bodies and the wings."

"Uh, Tom? Aren't they already powered by one of your little atomic power pods?" the Engineer asked.

Tom nodded. "They are, but I want ours to go farther and faster and that means we're getting rid of the ion drive and adding repelatrions, and *that* means the need for more power. So, Patty, if we have a surface area of, say, one hundred and twenty square feet—the ninety of the upper and lower hulls and at least the tops of the wings I plan, what kind of power are we talking about at..." and now his forehead scrunched up in thought. "Well, I suppose we could say out around Mars for example."

The pretty brunette pulled out her tablet computer. Tom was amused to see that it was one of the new SwiftSlates that Enterprises had been building for only a few months. She did a series of calculations and had to take time out to do a quick bit of research on solar ray strength as far out as Mars. Finally she looked

up.

“If we can cover every square inch of that, even with a thin protective coating of clear tomasite, it looks like at our standard four hundred volts output we might see two thousand kilowatt-hours at a draw rate of nearly six hundred amps! Will that do what you want?”

Tom shrugged. “Honestly? I don't know right now. It is just that I want to understand if it will be worth the effort to rebuild those ships. Thanks!”

A minute later Patty excused herself and left.

Tom pointed at the framework. “Looks different than what you repurposed for the first ones. What's up?”

“I wanted to have a better arrangement for all the equipment, and especially if you decide to hang a SuperSuperSight on these.”

“Super SuperSight?”

“Yeah. With the CIA additions. Bud, of course, will come up with something better, but I'll be thinking of it as an S-S-S.”

They were both to be surprised and even a little let down when the flyer, the very next afternoon, saw what was being put together and stated that it was going to be, “...sort of like a super SuperSight then. Neat!”

Tom wasn't too sure about the name. However, a little field testing of the basic unit showed it had a great deal of promise.

He stated more than once how shocked he was that what the CIA had deemed to be Top Secret all those years and decades ago, was only slightly better than the pocket cameras of today. Certainly, there was electronic enhancement and stabilization, and the stereo optics, but the real secret was in the precision multi-level lens created by Hans Gudegast.

When Tom had called him, he sounded both tired and reluctant to discuss his involvement. But once the inventor explained the purpose, and the destruction Lacrobat had perpetrated on the satellites, the man's attention was complete.

“I have a brother in New Zealand whom I could not reach for several weeks. 'Not a priority communication,' I was told time and again. Dear god! He has a very bad heart condition and all I wanted to do was to check up on him. It finally took my calling an acquaintance at the CIA to get a call put through. One minute I was given. One! I barely had time for 'Hello and how are you doing?' before we were disconnected. So, you ask if I will be involved in creating a new lens for your system and I will tell you that yes, I

will.”

“You cannot believe how incredibly happy I am to hear that, sir,” Tom told him.

“Happy? *You* be happy. What *I* need is this. Come and get me. I am living with my fifth wife in Sarasota, Florida and the heat is killing me. That is if her cooking doesn't get to me first. You come rescue me and set me up with the equipment I need and I will have you a lens in five weeks. No, make that four. I feel suddenly energized!”

He made the first lens in two weeks.

It surprised even him, but as he admitted, “The equipment you have and the computer controlled grinding is incredible. Back in my workshop I still do things using my hands, my eyes, and my heart. This,” he told the young man as he pointed around him at the workshop Tom had assembled, “knocks all that into a cocked hat!”

They had spent several afternoons while the automated equipment was completing one or another task talking about Gudegast's father.

“Sure, he was an actor. Lived and acted steadily until he died at the age of ninety-seven. At first, all he got were World War Two Nazi or German military officer roles. Then, he changed his name, spend several years losing his heavy German accent, and reinvented himself. Damn handsome man he was. The ladies had a thing for him. My own mother, bless her soul, was what they used to call a groupie. Stood around the back door of sound stages waiting for a glimpse of him.”

Tom chuckled. “I'm guessing he spotted her and liked what he saw.”

“Liked? He loved her at first sight. The studio threw a fit over it all. 'How can we package you as a ladies' man if you are married?' they asked him. 'How can you sell what you do not have control over?' he asked and showed them his contract. Non-exclusive! That was the brilliance of the man!”

The next three lenses could be ground under complete automation, but Hans asked if he might stay and watch and supervise.

“Besides, you can't tell when I might come up with an improvement. Can't do that from Sarasota.”

By the time the fifth and final, their extra, lens was finished, Hans sadly said his goodbyes and packed to go home. Tom, as when the man first came to Enterprises, personally flew him home and

even went with him in the taxi to the apartment Hans and his wife kept.

Gudegast promised to be available, “For as long as my wife does not kill me with her cooking!”

Tom grinned. “Or, that Florida heat?” Gudegast laughed.

Back at Enterprises, the inventor set about finalizing the SuperSuperSight units that Hanks had ready for him.

Five days later the first of the satellites was assembled and Tom and Zimby Cox flew it up into orbit. Bud was making an important delivery of four Skeeter two-man helicopters to the Coast Guard out in Washington State.

He chose to temporarily place the spy satellite over the equator above the Galapagos Islands where the base station for his High-Space L-Evator sat an anchor. It was a stormy time of year for the area and made for great testing.

Just as he assumed it would, the SSS was able to see down through everything and, even at night, pick up the figures of five men as they walked across the deck of the anchorage vessel. Zimby laughed when one of them evidently lost his hat and turned as if trying to catch it.

When they brought the satellite back into the hangar of the *Challenger* and headed home, Tom commented how satisfied he was with the way the system had worked.

“Think you’ll be able to get evidence of this Lacrobat fellow?”

“Assuming that he tries to attack any of the satellites we will eventually have up there, and he is nearly out of missile range heading across the Pacific and out of territory going the other way so I believe he will not be firing missiles, but you never can tell.”

Leaving Hank to complete work on the rest of the satellites, Tom decided that another on-site visit was due to check the finalization of *Goliath*, and that should include his collider team getting their first real look at the nearly finished ship. They had been working diligently in one of the hangars at Enterprises on assembling the collider for its initial testing and had not been taken to see where they would install it the following week.

Along with the four Fermilab people, Tom also brought along three Enterprises’ employees who had been working with the core team. All had previous experience with reactors and/or colliders with one of them a former colleague of the core team members.

“When we begin to get close I would like to ask that you all either close your eyes or look down or something. I have a notion that the

reveal of *Goliath* to you all needs to be something spectacular, so I have set up things to do just that.”

“Okay, Tom,” one of the men. “But, how will we know just how impressed to be?”

While everyone else had a good laugh about this, Tom only replied, “That you all shall see!”

With Fearing Island still eighty miles away—a mere twelve minutes until landing—Tom asked for the team to avert their eyes. Everyone had already pulled out tablet computers and were studiously looking over technical notes and designs with at least two making more notes on possible improvements should there ever be a Mark II version of the collider.

Tom got a huge smile on his face when they came within five miles of the island. As he radioed for clearance to land, he could see that his “demonstration” had been set up and was waiting for them all.

“Fearing to Swift Two. Drones have been deactivated and vectored out of the way. You are cleared for landing on runway one-six with immediate taxi clearance for *Goliath*. Welcome back, skipper!”

“Swift Two. Thanks. On the ground in three minutes. Reactivate drones as soon as we touch down. Out.”

With the flaps set and the landing gear just coming down, everyone could feel the jet slow to its landing speed. The twin jet turbine engines perched atop the wing were slowing as well. However, very little noise penetrated the cabin. Special noise cancellation circuitry made certain of that.

“Nice landing, Tom,” commented Jon Oakes, their collider alignment specialist as they set down. The others muttered their appreciation for the nearly unnoticeable landing.

“Tom? Can we look now?” asked their only female member.

“Not just yet, Jennie. Please bear with me. I’m sure you all will understand once I give the okay.”

They turned off the runway onto a parallel taxiway and backtracked about half the length before turning forty-five degrees to the left. Another two minutes brought them to the spot Tom wanted to use for his unveiling.

“Okay, everybody,” he told them. “Take a look ahead of us.”

There was a combined seven-person gasp as they sought to take in what they were now seeing.

As they struggled with the picture Tom raised the canopy and got out motioning them to follow him onto the tarmac.

“It’s...”

“Oh, my god...”

“What the...”

The inventor laughed. It was only then that Jennie let her gaze drop down to see what was parked next to the giant ship.

“Is that... I mean, that can't be... but... uhhhhh”

“Yes,” Tom stated with some pride. “That really is my *Challenger* to the right. All of her and not hardly coming up to *Goliath's* knees!”

As they stood there, taking it all in, Jon commented, “You know, if we were penguins down in the Falklands we'd all be falling over backwards about now!”

For half of them, the reference to an old myth that the penguin population of that South American island nation had been seen watching as helicopters raced overhead only to fall over backwards as their heads overbalanced their bodies was understood.

Jon spent a minute explaining it to the rest who agreed that was a possibility.

It was only as they began walking toward the two ships that they all realized Tom had parked them nearly a mile away. Knowing that the walk was not necessary once they saw what he hoped they might, Tom TeleVoc'd a quick message and a pair of six-man *Straddlers* came zooming in to land in front of the moving group.

“We ride the rest of the way in style,” he told them as he demonstrated how to climb into one of the saddles. Soon, the machines were soaring along at about fifty feet before finally raising their noses and zooming up to make pinpoint landings on the platform.

“This” Tom explained as he swung off and stood to one side, “is where we reassemble the collider beginning on Tuesday. This is Wednesday so we have under one week before the move. Come over here and I want to show you something.”

He walked to a point about fifteen feet from the edge before bending over. Tapping a spot on the deck he was rewarded when a heavy ring rose from the surface.

“This is the typical hold down point. You can't really see them when they are flush with the deck because the machining is so precise, but this platform contains one about every foot out to a point just five inches from the platform's edge. Thousands of them

so you can attach anything at practically any point.”

Jon grinned and nodded. “So, that’s why you once told us that the position of the hold-downs on the collider’s case were not micrometer-specific? If I recall, you said, ‘Anywhere within a few inches,’ or something like that.”

Tom smiled. “Yes. Now you can all see why. Let’s go inside.”

He led them to the elevator shaft and up into the main cabin.

The tour lasted an hour with everybody having their curiosity satisfied. The operational controls they would use when running the collider were both familiar and yet new to them.

“They sort of look like what we had at Fermilab, Tom,” Jon commented, “but these are all shiny and whiz-bang and that sort of thing.”

Tom explained, “We took your old control panels and modernized them. Where you had dials and levers and buttons, we have an all-glass version where you simply run your fingers over the controls. In all, these are about eighty percent more precise. Heck, you had one dial with just ten stop points controlling the magnetic flow. This new version gives you precision to half of one percent, not jumps of ten percent like before.”

It was a very amazed team that left later and headed back to Enterprises.

Before leaving the area Tom made a wide circle around *Goliath* and *Challenger*. He next informed Fearing Tower they were departing.

“Roger. Hope your team enjoyed the view.”

“Absolutely, and give my thanks to the folks involved in setting that up. Swift Two, Out.”

The trip back was spent with everyone in nearly constant conversation. New ideas had popped up on seeing what they had to work with. Even Jack Jenkins, their electronics specialist and a man generally given to silence had plenty to say, especially about the new controls.

“I hate to be a pest about anything, Tom, and I don’t pretend to know what is behind all that glass—a bank of monitors I’d guess—but is there some way to rearrange a couple things? I mean, it isn’t mission critical but there have always been three readouts plus one controller on my boards that have been in positions that make operating them clumsy.” He looked concerned that he might be asking far too much.

Tom laughed. “Come on up and take the copilot seat, Jack. I’ve

got something you all should see.” The man squeezed through the gap between the seats and slipped into the seat next to Tom.

“Okay. Watch this.” Tom reached out and pressed a finger onto the face of one of the gauges in front of him. It was one of the two fuel gauges. As Jack and the others who could see over their shoulders watched, the gauge blinked twice and the inventor moved his finger to the right and over a blank spot on the glass-surfaced control panel. As soon as he took his finger away, they gasped as everyone could see the gauge had now magically moved from its old position into the new indicated spot.

“All our all-glass control surfaces work like that,” Tom explained. “We never have liked the idea that one person's, or even a design panel's, idea of placement ought to be the final say. The control panels you will have on *Goliath* work just like this.”

Silence reigned in the cockpit of the Toad as they flew on toward Enterprises.

CHAPTER 11 /

THE GIANT LIFTS OFF

GOLIATH SAT on its pad. Very little activity around it gave away the fact that it would soon lift off and head out to a point some one hundred-seventy thousand miles above the Earth at what was generally referred to as the Earth's L-1 Lagrange Point. Once there it would take almost no energy to maintain that position.

It was also at the point where, if there was any sort of accident, it would take very little power to jettison the collider and give it sufficient shove to pass the Earth on a course into the Sun.

That, it was hoped, would never need to be an exercised option!

Sitting there it was most impressive. It was the largest ship to ever take off from planet Earth and the only one to be exclusively nuclear powered. Even the *Challenger* had an auxiliary solar power array it extended when necessary for additional power.

Before they took off Tom asked that the *Challenger* be brought back out to sit next to the larger ship. The *Challenger* had always been a source of great pride for him. Its size, power and capabilities had remained untouched for several years. But, now...

After pictures were taken from several angles, Bud flew the older ship back to its own take-off and landing pad. He then hitched a ride with one of the base technicians back to *Goliath*.

He had been happy to find, several weeks earlier, that Tom was good to his word about adding an elevator. A five-man cage riding up on a special track to a point just under the huge platform, it only took a minute to traverse the various angled and straight sections. Then a short walk to the final eight-foot ladder to the hatch through which everyone passed and then he was on the platform.

A stiff wind was blowing down from the North bringing with it cold air. His hair, slightly shaggier than he normally kept it—Sandy had asked him to try it a little longer—whipped around his forehead. Bud brushed it back and walked the few yards to the central elevator shaft. Inside he pulled out his comb and got his hair into some semblance of order before stepping out into the lower level common area.

All around him people both from the crew and from the support team at Fearing were scurrying around preparing the giant ship for both her maiden voyage as well as her offloading of the newest satellites to replace those destroyed, and then onward to their

testing position for the matter collider.

It was planned to be a very full five day trip.

When the flyer found Tom the inventor was finishing a software upgrade to the voice-activated controls.

Noticing his friend and brother-in-law standing, waiting, Tom remarked, "Wouldn't you just know it? I completely forgot to set the system up so that multiple people can be controlling different systems at the same time!" He explained that as long as the microphone pickups could discern individual words from any background noises, it would now be possible for up to five different people to be issuing commands, even simultaneously, to the computers.

"Oh," Bud said, brightening. "So, if you tell me to take control of launching our little one-manners I won't have to sit down and type in or punch in commands? I can just stand there, even next to you, and tell the computer to 'open the pod bay doors' and such without it interfering with you telling it to dodge an incoming asteroid? Neat!"

Tom grinned, getting the reference. From behind them Hank's voice could be heard groaning. It made everyone smile.

An hour later the last of the base technicians had departed and the launch was just minutes away.

"Got a question, skipper," Bud said as he saw Tom lean back in his seat, apparently happy that all systems had just passed their final check.

"Sure, Bud. What?"

"I was only slightly kidding with the whole 2001 reference. Do we need to address the computer by any code word to make certain it understands we are issuing a command and not just talking among ourselves?"

"Good question. I have it set up both ways. Mostly, if we are talking and need to issue a command, we just pause then say, 'command,' and then what we need. If we want to go back to talking, we don't need to say anything unless we know it will include words that sound like commands. So, if you and I are talking about the ladies and I say, 'command... fifteen degrees starboard, five degrees up plane,' and then turn to you and say something like, 'so, we had dinner and watched a movie,' that is fine. But, if I followed up the command with 'we need to stop,' then the computer is going to believe I want the ship to halt."

"Going to take a bit of practice for me," Bud admitted.

“You'll get the hang of it. Or, if we all have troubles, I'll need to make is so we preface each command with that key word.”

A minute later Tom tapped a new type of TeleVoc pin. This one, a stylized “S” and reminiscent of the old Star Trek communicator badges, was held to the upper-left breast pocket of each crew member's shirts. It was tied into the computers.

“Ship-wide,” he said. A soft *ping* could be heard and he knew he was 'live' and so he said, “Tom to crew. Takeoff in three minutes. Since we know the first few minutes the ship will be buffeted by air pressure even though we'll be going relatively slow, I want everyone in their couches. I'll give the all-clear once we get to altitude.”

He and Bud brought their harnesses out from the side of their acceleration couches and made certain they were clicked in place.

Tom's hands would normally be racing all over the control board of *Challenger*, but in *Goliath*, he sat with his hands in his lap. He finally made another announcement.

“Take-off in fifteen seconds. Only announce if you are not ready.”

No calls came in and he said into the air, “Command. Radio to tower. Tom to Fearing tower. Takeoff in five seconds unless you have a problem.”

The voice of the chief air controller, Leo, came back. “No issues. Bon voyage, *Goliath*.”

Right on time the giant ship gave a small shudder and the view screens showed that they had lifted off. Compared to the *Challenger*, it was obviously slow progress, but it was progress nonetheless. Within a minute the ground was far beneath them and the curvature of the planet could be discerned. Two minutes after that they passed up through a layer of clouds that had been reported at eighteen thousand feet.

The ship was buffeted by the strong winds inside the clouds but was up and through them within ten seconds.

As they approached seventy thousand feet a couple minutes later, Tom said, “Command. At seventy-five thousand feet increase speed to two thousand miles per hour. At altitude two hundred-fifty thousand feet increase speed again to five thousand miles per hour.”

He kept increasing their speed until they had passed the one hundred mile mark at which point he asked for a course change to arc them into geosynchronous orbit and take them to a point over the South China Sea and close to the equator.

Like the previous delivery of satellites to replace the ones shot down by this Lacrobat and his missiles, the release of the four

satellites—two at each end of the line of three he and Bud had delivered earlier that year, along with the retrieval of the space debris from the destroyed ones and recovery of the two older yet still active ones—went smoothly.

Bud, Hank and Slim Davis, another Enterprises pilot and qualified space man, had performed the release and the capture duties of the first satellite position flawlessly. Appropriate tie-down points had been extended and everything made fast under a large specially-designed cargo tarp.

Coming back to his position next to Tom, Bud was grinning from ear to ear.

“We just sort of floated the first one off the platform and I gave it a tiny shove. Off it went and only gave off the very briefest of retro fire to hold the right position. And, I have to tell you that I'm loving the new, rapid evac and fill airlock on this ship! No more five-minutes each way. Sixty-seconds and you're in or out. Yippee!”

The other three launches went equally as well and Tom called a rest period. They had been in space for about seven hours already.

Chow Winkler, who had been spending time in his galley off to one side of the upper deck came out with platters of warm turkey and egg salad sandwiches which were greedily devoured by the crew who had not eaten since about four hours before takeoff.

Also on their plates was what the chef called “Four tater salad.” When Bud asked him, “What taters are they for?” Chow had snorted at him.

“Buddy boy, when I call that four taters I meant there's four differe'n't kinds o' taters in there. Big old Idaho russets, tiny red ones, them creamy Yukon gold and even sweet taters. Get it? *Four* taters!”

As the westerner walked away shaking his head, Bud called out, “Whatever kinds of potatoes are in this, it's delicious! Thanks, Chow.”

The cook turned around and took off his ever-present ten-gallon hat and bowed to the smattering of applause from those in the upper level.

Half an hour after they ate, Tom set course for their Lagrange point. He purposely did not accelerate the ship to its highest speed preferring to take a slow and steady approach so that the rest of the crew could continue their break.

He and Bud even let Hank and Slim Davis spell them at the controls so they could take a nap.

Nine hours later the ship arrived, and with the inventor back at

the controls, slowed to a relative halt. He gave the ship the command to remain in position relative to the Earth and Moon and then went to the far side of the control room to see if the collider team had any need for his services. They did not but invited him to stay while they got things going.

The process was a slow and steady, one requiring that the ring collider—encircling the outmost edge of the platform with everything else sitting inside the circle—be brought slowly on line. Each one of the hundreds of electromagnets had to be energized at low levels and tested. Then, using slightly higher power settings the entire setup was run through additional tests.

All the while this was occurring, the main power reactors were building up a massive charge, ready to release it to propel the special isotope molecules around the circumference at faster and faster speeds until it would smash into the target materials. And, this wasn't even meant to create the antimatter. This was a simple test to ensure the equipment had been properly assembled and was capable of sustaining the sort of collisions and reactions necessary to be used when the proper time came.

After five long hours the team told Tom it was time to make their first try.

Tom nodded and made a, “Be my guest” motion with his right hand.

The collider was running at near top power by now, and it was ready for the team to release the materials. A short five-second countdown was followed by a simple press of a button by one finger.

The first thing everyone noticed, and caused the auto-shutdown of the collider, was that the lack of gravity had more of a negative effect than a positive one. Particles that could be relied on to remain in one trajectory on Earth tended to drift up and outward.

“What the heck are we going to do about that?” one of the techs asked.

Tom shook his head. “I'm not sure. The one things I can offer is that we found a nearly similar problem with our water separator centrifuge. Even though the forces want to keep things heading outward, the physics also seemed to require a slight downward force to function correctly.”

The tech, Sam, looked at Tom. “So, what did you do?”

The inventor smiled. “Well, we started with the notion that if things are spinning on a perfectly horizontal axis, that we might benefit by also spinning the entire chamber around the vertical one at a slow speed, but just enough to force things to act as if under

Earth gravity.” He shook his head. “Didn't work, of course. The very second the load inside got off balance; we had a wobble and had to shut down. It was like a bowling ball in a clothes dryer. In the end we decided to downsize, and...”

Tom's eyes glazed over as a thought hit him.

Sam, not used to this reaction, tried to get Tom's attention and finally hit one of the emergency buttons calling for medical assistance. When the medic arrived—Doc Simpson had assigned one of his top Nurse Practitioners, Debbie Bates—and saw the inventor she did not appear to be in any hurry to do anything. Tom met her, and was given top first aid by the then high school girl a few years earlier. He had introduced her to Doc who hired her on the spot, got her a place in nursing school within weeks of graduation and watched as she got through that schooling in just eighteen months. She excelled at everything medical and soon was practicing and taking her Board certification to be an Nurse Practitioner passing at the very top of that year's State exams.

On seeing her friend Tom, Debbie laughed. This perplexed Sam but she explained that the inventor was off in some area of his own mind that was fully occupied with some problem or another. As if to prove her explanation, Tom chose that moment to “come back.”

“Huh? Oh, hi, Debbie. How's our junior Doc?” Then he spotted Sam and the worried look on the older man's face. “Umm, Sam? Did Debbie tell you I was okay? I only ask because I believe you were trying to get my attention a while ago. Am I right?”

Sam nodded and gulped. This was almost too much to take in, so he patted Tom on the shoulder and turned away.

“Thanks for the concern,” Tom called after him as he headed back down the central staircase.

Sheepishly, Tom turned to Debbie. “Guess I ought to wear a big sign that says something like, 'If found staring at nothing, ignore!'”

Sam came walking back up the stairs. “I just remembered. You must have been thinking about why the system shut down and what we can do about it.” He looked at Tom hopefully. “Downsize?”

Debbie, knowing this was beyond her area of expertise, walked away to return to her small med room.

“Oh,” the inventor replied, “I just thought that the same change we made to the water purification centrifuge might be the solution here. We made it smaller. Much smaller. If my idea is correct, we may turn the one large ring collider that almost overlaps the edge of the platform down there,” he pointed to the floor, “and make one that is quite a bit smaller. By, maybe, a factor of five or six. We move

the individual reactors outside of the collider and the containment pods up and above things. We do have the space for that around the central elevator tower.”

He announced the decision to return to Fearing a quarter hour later. Everyone on the collider team agreed that something radical might be needed although none of the core four believed that making things small was going to do much.

The next two weeks went by in a whirlwind of tearing the collider back down, building—with a lot of help from Hank and the vacuum-form equipment at the Construction Company—an entirely new casing for the scaled down collider. However, even with the smaller diameter Tom decided to cram all the original electrical, magnetic containment and electronics into this smaller space.

“We might be running it smaller, but it will also run faster. I’m certain we need everything in there,” he told the assembled team along with his own father.

“Can everything be contained, and can you run the collider at the same speeds?” Damon inquired. He believed he knew the answers to be in the affirmative, but this was definitely not within his area of expertise.

“Yes,” came back the emphatic answer. “I fact, we believe given what Tom has been able to help model in the computer that it should actually work better. Back when we were at Fermilab, there was a theory that bigger wasn’t always better. The Large Hadron Collider was supposed to give scientists immediate results, but almost immediately had to be shut down and rebuilt. And, that cost years of time and millions of European Dollars. Our collider at Fermilab ran without any problems for decades. Barely any time down and that was generally only for upgrades.”

Tom piped in with, “As long as we have the scaling down of those elements that can be scaled, and maintain the proper proportions of those that cannot be reduced in size or power, technically we can run the collider at a high enough speed to initiate fusion!”

There was an awed gasp in the room. Fission was well known and was the main component of bombs and reactors around the globe, in space, and even in the main reactors needed to operate *Goliath*. Fusion, on the other hand, was the power of the Sun and had yet to be successfully harnessed for more than a few milliseconds.

Damon turned to his son. “Do you really think you can do that?”

Tom nodded. “Yes, but I won’t. I can’t until we conclude this project. Even then I might need to separate the collider from the ship, leave it someplace where an accident will be harmless, and do

everything by remote control. Perhaps in a few years. If it is there to be accomplished, it can wait a little longer.”

His father looked relieved to hear this.

The group discussed the downsizing and by the end of the day, and the meeting, a firm plan of action had been decided on. It was a plan that would only require a few weeks to get to the test phase, but one on which Tom's entire concept of making his needed antimatter on site rested on.

With nothing more to drive a schedule other than the young inventor's curiosity, he made the difficult—to him—decision to allow things to progress at a normal pace.

Drafting the changes in the computers was a team effort with the former Fermilab technicians working along side Tom. As each new change was made, they spent time discussing it and even running simulations.

Only three times did this point out an inadequacy in the design, and two of those were quickly rectified. One of these was to increase the number of giant power pods to operate the collider. The first setup had included three in the center of the collider ring. The new design would have twice that number now mounted outside the smaller ring.

This extra power would allow the collider to be run for longer periods of time and would also provide adequate power for the four magnetic containment pods that were now to be mounted above the collider. This was where the “charges” of antimatter would be kept until transferred to the *Galaxy Traveler* for its use.

The third change required that new electromagnets be constructed in order to keep the curvature of the materials as tight as it needed to be. A full week went by and no new magnetic devices had been constructed.

The fly in the ointment was delivery of power to each one. It needed to be high, but also absolutely had to be as stable as possible. It was beginning to look as if a separate computer would be needed for each of the one hundred-and-seven electromagnets in the now fifty-six-foot diameter collider to maintain micro-power control.

Then, Tom had a breakthrough. A simple device he had constructed to help drive a special plasma-powered headlight for use in extreme weather and sandstorm blackout conditions offered a ray of hope. Called the CoilCap, it was a funnel-shaped capacitor and power step-up device that doubled, doubled, doubled, and doubled again eleven additional times whatever power was put into

it. And, to make it about as perfect for Tom's needs now, that process steadied out the power to within one-eighth of one percent of being absolutely steady.

That was nearly twice the stability Tom needed.

The CoilCap would obviously need to be enlarged, but earlier experiments had shown this was possible with no downside.

Two days later the new downsized collider was complete and on its way back to Fearing to be reinstalled on *Goliath*. This scaled-down unit could be fit into the two main cargo pods of the *Super Queen* and would require less than ten hours to reassemble.

After that, the mission—or at least the collider portion of it—was repeated.

This time, rather than shut down, the collider reacted just as Tom and the team of technicians hoped it would. As the first collision occurred, a disproportionately large—to the actual mass of the materials—amount of energy was released. In real terms this wouldn't have even given a human the sensation of a static electricity shock, but it was measurable, significant, and precisely what was expected.

In other words, the scaled down ring, which the former Fermilab techs had started calling the Swift Collider Model 1, was proving to be a success.

And, at the twenty-four hour mark the unit was shut down and inspected thoroughly. Every square millimeter of the inside of the tube remained shiny and the array of electromagnetic units were clean, in near-perfect condition, and the collision materials had been totally consumed.

The technicians were ecstatic but not even half of what Tom Swift was feeling as they headed back to Fearing Island. Even though the collider had consumed many millions of times more energy than it had created, the inventor had proved the point.

The collider would do what he needed once they reached the wormhole.

CHAPTER 12 /

SEPARATION, SQUEEZE, AND SEARCH

THREE DAYS prior to take off for the wormhole Tom, Bashalli, Bud and Sandy took off for a brief vacation to a resort in Maine. Built around a hot springs and catering to people mostly in their twenty and thirties, it was a perfect place for the two couples to spend important time together before the men took off on what would be in excess of a five-week trip.

The inventor had also suggested to the collider team, the team of pilots and support personnel and even the five scientists who were to accompany them on the voyage that they, too, take the days off.

The time to go home—for the women—would come shortly after *Goliath's* take-off. Both Bashalli and Sandy nearly refused to let go of their respective husbands, and both woman had red-rimmed eyes from crying as the final two members of the crew rose up to disappear into the platform high above everyone's heads.

Interest in this brand new space ship had been high and so Damon had agreed to allow one camera crew from each of the major networks plus crews from fifteen foreign countries to attend the launch. They had been capturing everything possible within the limits of what Fearing Security would allow for three hours. Now, their sole focus was on the ship. Even as their trucks drew back and away to the safety zone, cameramen and women on the tops of those trucks continued getting their shots.

High above everyone Tom and Bud entered the control room and took their places.

Hank, Zimby, Slim and the final pilot in their team, Red Jones, had come onboard hours earlier to do all the systems checks and ready the ship. All Tom had to do was sign in with his voice and announce imminent take-off.

Even though all had been prepared for it, many of the camera and reporter crews openly cried out when the giant ship failed to rise as rapidly as they believed was necessary. One even went over the line by reporting in a shrill voice that the ship was about to crash to the ground.

Of course, *Goliath* kept rising steadily, gaining a little speed but keeping under the climb rate that would cause buffeting and instability.

Eventually the reporters recalled the briefing materials they had

received earlier and began reporting the success of the launch.

Goliath rose up and disappeared above some wispy clouds about two minutes after it lifted from the reinforced tarmac.

With the ship out of sight, many reporters turned to speculation about both the array of structures on the platform—there had been no mention of the collider—and on the mission—again, no real data had been provided. A few told their viewers this must only be a test flight and that nothing more than a few orbits of the Earth would be accomplished.

One astute reporter from Canada told her viewers about a rumor that there was to be some sort of rendezvous in space with another vehicle, but she had no idea what that ship might be or the reason for such a maneuver.

In the control room, Tom and the control crew were enjoying the smooth ride into orbit. He intended to circle the globe once before heading out into space and their actual mission.

“Liking how she handles, skipper,” Bud reported. “I almost could believe someone is hiding and actually piloting her, but I see Red, Zimby and Slim sitting over in their seats, and Hank appears to be dozing.”

Getting no response from his friend, the flyer turned to look at Tom.

“What's up?”

“Huh?” Tom said giving a small shake of his head and looking at Bud. “Uh, what was that last question?”

“I asked what is up. You seem to be miles sway from here. Trouble?” he added lowering his voice.

“No, it's just I've never seen Bash so upset. Maybe it's the pregnancy, but she is really torn up about our going out to the wormhole. I hope we can get inside, out the other end and find whatever we can about the time difference then get back home. I think she really needs me there as much as possible.”

Bud patted Tom on the forearm. “She's tougher than you think. Both of them are. Besides, we'll get back before she's even at the end of month six!”

The inventor nodded, took a deep breath and turned his attention to getting them into orbit.

It was not to be a smooth orbit, and it almost caused Tom to decide to go back to Fearing.

As they passed high over Pakistan and then India one of the

flight engineers reported some sort of RADAR scan.

“Seems to be a very old anti-aircraft system. Probably nineteen-seventies surplus. It keeps sweeping us but isn't locking on.”

“Keep watching, Jerry. Give me reports any time something changes.”

“Got it!”

They continued their five hundred-mile-high orbit another two minutes before Jerry called out, “Something's incoming! I swung the SuperSight at it and all I see is trailing flame. Some sort of rocket or missile!”

Tom hit the ALERT button on his control panel and made a ship-wide announcement.

“We have something incoming. All hands into your couches and brace. We shouldn't get hit, but if whatever it is explodes near enough we'll get a good shaking!”

“Three minute till it gets here,” Jerry called out.

“Do we take evasive action?” Hank asked his position from seven feet away.

Tom nodded. “Command! Fifty degree starboard turn. Elevate one hundred miles.”

Everyone felt the ship change course and head farther out.

“Whatever it is isn't following our move, skipper!” Jerry called out. “Looks like it'll miss by several hundred miles.”

“Keep watching it,” Tom cautioned. “Things like that can change course just as easily as we did.”

As the missile got closer to their orbit everyone could see it was some variation on an old-time Long March Chinese rocket. The markings were faded with age, but the shape was unmistakable.

Perhaps fifty miles below their altitude the fuel ran out and with a final puff of smoke, the engines shut down. It would continue to drift upward for some time.

Tom ordered computations to determine its origin, eventual turnaround and plunge back through the atmosphere and probable ending point.

“Want me to take one of the little *Starlights* out and give it a good shove?” Bud asked.

Alarmed at the thought, Tom gave him a definite “No!” answer. “What if that thing has a proximity detonator, Bud?”

Bud blushed on realizing how right Tom was. "Sorry."

"Forget it. Command. Reduce orbital speed by eighty-five percent and hold altitude using main drive."

"Skipper? The rocket came from just north of the Vietnam China border. Same spot as the last missile that tried to shoot down the satellites. It will peak at eleven hundred-sixty-three miles and trajectory shows whatever survives reentry will be splashing down about eight hundred miles south-southeast of Loonau Island. That's plus or minus fifteen miles. Time to splash, three hours, seventeen minutes."

Tom turned to look at their radio operator. "Louie? Call Loonau and let them know, then get onto the maritime authorities and inform them. Then, call Enterprises and tell them we are going on with the mission."

He also requested that their video feed and tracking information be compressed and sent to all appropriate recipients.

"What's next?" Bud inquired as Tom increased their speed back to one that would maintain their orbit.

"We head up to the old Outpost and pick up the *Galaxy Traveler*, then it's on to the wormhole."

Bud smiled. "That's the sort of thing I like to hear."

* * * * *

The trip out to the wormhole located outside the orbit of Mars was set to take two weeks and two. Constant 1.5-G acceleration would be manageable by the crew and would get them to the turn-around point in just over eight days.

But, a new sense of speed hit Tom so he ordered that increased to 1.75-Gs, shortening the outbound trip by three days.

Most of the crew spent as much time in their acceleration couches as possible. To help people manage the forces, Tom allowed the ship to coast at whatever its current speed was every four hours for a half hour. During these times meals were eaten, bathroom necessities taken care of, and even short naps were grabbed.

Any time when a person was off duty, they could avail themselves of a pill provided by Doc Simpson to help them sleep even when the drive was on.

These were non-addictive and worked within two minutes. The real plus was that if the person absolutely had to wake up, they could. A special pouch containing a counteractive drink was provided with each pill that would do away with any further sleepiness.

The five pilots took four-hour shifts swapping over during the coasting breaks. So, by the time they were one day out from the last known position of the wormhole, everyone was fairly well rested. They would take a twelve-hour rest period before doing anything after arrival, but would still end up more than two days ahead of schedule.

The scientists along for the trip were getting antsy. Only two of the five had any space experience and they had only gone up to the Outpost in Space once each to use the specialty equipment and micro-gravity offered at that facility.

Four of them were outgoing and even gregarious having no troubles striking up conversations and taking an interest in everything going on during the trip. However, one man, Dr. Filipe de Vie, kept to himself. One theory was his grasp of the English language was weak and so he avoided situations where he might be required to speak.

Bud's assessment was that the man was "*Juste un pisse-froid*," or just a cold fish.

"He gives me the creeps, Tom. I mean, his last name translates as 'to life' and yet he's anything other than. Plus, although he sticks to his room a lot, I did a small check with Debbie and he's not taken any of the sleepy pills Doc sent out with us. It isn't natural for someone with zero space experience to not want to sleep as much of the time as possible."

Tom had shrugged, but he was also getting worried about the man's attitude. Since this was one of their final coasting periods before arriving at the wormhole, the inventor stood and walked over to where Dr. de Vie was sitting. He had been rehearsing some of his very weak French language skills for more than an hour and felt it might help break the ice.

"*Excusez-moi, Doctor, et je ne parle pas très bien français, mais êtes-vous sentez bien?* Are you feeling okay?"

de Vie looked briefly at Tom and shrugged. Slowly, as if realizing he could not avoid a conversation, he turned and spoke.

"Mr. Swift. I am, how is said, unsatisfactory for this voyage. My skill in physics was, I am fear, categorized incorrectly. I have no practical experience with these cosmos, as you may well see, and can find no reason I should be joyous. Forgive me if I now return to my cabin."

He began to stand but Tom's hand shot out and rested heavily on his arm.

In a very low tone, Tom leaned down and said, "Please stay

seated. I am not certain what your personal problem is, but on my ship everyone has a job. Yours is about to begin and I hope you find that *whatever* your set of skills might be, you were not selected at random. And, while I cannot force you to enjoy the companionship of the others, I do insist that you cease moping and start taking part in our activities. Once we get back to Earth you may disappear back to France and complain about me, about the trip, about whatever you wish, but today and for the next week or two *you will participate*. *Comprenez-vous?* If not I will dictate what I just said and you can have it translated by the computers!”

The man's eyes had grown wide during Tom's quiet dressing down and now he nodded.

“*Oui!* Yes. Once I am at my work I will be more at ease. And,” he looked into Tom's eyes as if trying to find something in there, but soon shook his head and continued, “I shall not complain about this trip or how I was treated once I am back in my own facility.” He stood up now, not stopped by Tom, and headed for the stairs to go down to the living level.

Bud came over and sat down on the seat recently vacated. “Interesting conversation?”

“I don't know, flyboy. Our cold fish is also an odd duck. *Un étrange mallard* indeed. He speaks better English than he lets on, uses almost stereotyped asides such as, 'how you say,' that no Frenchman really uses, and is making excuses for things that have not yet happened. Mostly about his skills or lack of them.” Tom paused and thought about something before adding, “Ask Hank and Slim to keep a good eye on him once you and I head into the wormhole.”

As the giant ship approached their destination a complete sweep of the area was made to determine the status of the hole. As before it had drifted some twenty thousand miles from the last time it had been detected and visited, but since the transmitter for the camera on the other end of the hole also notified them of the proper position, they had come to a halt just five miles away.

While the collider team began to put their equipment into operational order, Tom and Bud donned space suits and went out to release the *Galaxy Traveler* from its brackets just below the platform.

Completely rebuilt since their first nearly fatal trip to the solar system at the other end of the wormhole, the *Traveler* was now fifteen feet longer. In addition to the new airlock the boys had used on their most recent trip, it also now featured a new, reinforced storage tank/containment vessel located behind the slightly longer

cabin. The containment tank was strong—made from a single solid pouring of tomasite with a thick mesh of Durastress inside and out—and featured a magnetic coil system capable of holding anything up to four feet across inside. Only the top panel was not part of this single-piece tank, and it could be clamped down in sixteen places.

Up front in the nose where once had resided the ship's tiny airlock, one of Tom's Attractatron units had been added. This device could grab onto anything solid and hold it so firmly that it could be maneuvered around just about anywhere. He had built these for his Mules, or space battering rams, that currently orbited the Earth-Moon system at a distance of one million miles keeping any space debris from hitting either celestial body.

This one was mounted to a complex armature that the inventor hoped would allow them to grab onto whatever they discovered and maneuver it around to be deposited into the safety of the new containment tank.

Because the plan was to first take the scientists into the wormhole for six hours at which time they would perform some direct observations and also plant several tons of sensor equipment, a special docking hatch had been added to both the side of the *Traveler* and to an emergency exit airlock on the upper level of the control cabin on *Goliath*.

The equipment would be taken in inside the containment tank and was going to require a half day before departure for a team consisting of Slim, Zimby, Hank, and the team of scientists to move and pack away their pieces in the tight quarters. All this work needed to be performed in the vacuum of space in full suits.

During this time the collider team began working to get the collider up to speed and to create the first charge of antimatter.

It took one full day to get to the point where the fissionable materials could be introduced and the antimatter to begin to build. They worked without sleep for thirty hours until Jon called a halt to the process. A magnetic containment vessel was lowered into position on the inside for the collider ring and the charge of antimatter—barely the size of a small marble but with enormous power potential—carefully moved into it. Once inside, it could be stored for months as long as the power for the containment field was not cut off.

It would, however, be transferred into the nose of the *Galaxy Traveler* to be used to force the wormhole, currently only as wide as the 3/16th-inch tether coming out of it, to a size wide enough to allow the Traveler to pass through. It would remain open only about half a second, but the onboard computer would already have the

ship shooting forward in time to get inside.

“I want everybody to take four hours and get some rest. That goes double for our collider team. Take eight if you can and then get back to making us that antimatter. We will be back exactly six hours after we go in and I'll want to load a pair of charges into the ship and take off for the other end ten hours later.”

The scientists assembled in the ship's conference room to one side of the control room. Tom briefed them again about the procedures they must all follow. He ended with, “Get your equipment out and set up before you do any looking around. And be absolutely scrupulous about ensuring it is as far to the sides of the wormhole as you can get it or else when Bud and I go through in the *Traveler* it will be destroyed. Not the ship, but your equipment. We'll never know it happened because of our speed and a few other strange things that are part of the inside of this wormhole. Are we all clear about that?”

Even Dr. de Vie nodded his understanding.

After the rest break the seven men suited up and entered the cramped cabin and storage room of the *Traveler*. Tom and Bud took their seats up front close to the view screen while the scientists settled onto the deck and strapped themselves in using the temporary restraints that had been installed.

“All ship status green, Tom,” Bud reported. “Ditto the containment of our antimatter. We're good to go in.”

Tom made the call to *Goliath* announcing their intention to proceed in one minute.

“Roger. Send us a postcard from inside,” Zimby Cox radioed back.

“Okay.” To Bud he said, “Charge the laser.”

The laser would send out a hugely powerful and hot pulse that would break the containment canister of the antimatter at the same moment that a small cannon shot out a charge of positive matter. When that hit the antimatter the physics involved released a huge amount of energy. This, short of an atomic warhead, was about the only thing Tom had found that could open the wormhole.

The only way the probe and equipment tether cables could survive this sort of energy blast is because they were heavily encased in tomasite.

He turned his head around and looked at the scientists. “Stand by. Lean back into the padding we put back there. Also, I strongly suggest closing your eyes until we get in. The energy release is pretty

bright. And some of you might pass out for a few moments. Okay. Ten seconds to go.” He looked at Bud with a sly grin. The blacking out had never been mentioned to the scientists until now to keep them from worrying.

He keyed the radio and continued the countdown. The computer had already taken complete control of everything so all they had to do was brace and wait.

The acceleration hit everyone with about 6-Gs of force. But, it lasted just one second before they were coasting and then quickly slowing as if trying to fly through molasses.

Tom felt stunned for a minute but finally shook his head and turned to Bud. “In.”

“Surely we can't be in the wormhole,” Jon declared groggily a few minutes later. “I don't see a thing. Plus, my head hurts like heck!”

Tom and Bud laughed. “You can't see because it is boo dark in here. We are contained inside something no light penetrates,” Bud explained.

“The pain is from the transition into the hole. It passes in about five minutes. Our first time we came through really fast and that seems to make it worse. We were out of it for an hour or more,” Tom added as he reached out and touched a switch.

Immediately the scientists let out exclamations of surprise.

The inside of the wormhole was now brightly lit by lights placed all around the *Traveler*. Looking like nothing they had ever seen—to Bud it looked a little like an intestine as seen in a colonoscopy video he had once been forced to watch in school—they now clambered out of their harnesses and tried to out-push each other to get a good look through the viewscreen.

Because Tom had not activated the artificial gravity inside the ship, most of them succeeded in shoving themselves up and into the ceiling causing some cursing and more than a few bumps and lumps.

Ten minutes later they had been convinced to get their helmets into place and with Bud forcing his way between them, checking to see they had done it correctly, they entered the airlock in groups of two and headed outside.

There was precious little time to take a look around and they all understood that to miss the schedule was to doom some part of their observations, so everyone got to work unpacking and setting up the equipment.

Only Dr. de Vie had to be nudged into action, but he got to work and had his portion of the equipment out and ready before any of

the others. He went over to look closely at one small feature near the wall while the others continued their work.

All setup was complete in about five hours so Tom allowed the scientists to roam around a little. “Stay within twenty feet of the front or back of the ship. Distances inside here are really strange and if you go much further you might find yourself actually a few million miles away and *we will not be able to come get you!*”

It had the desired effect. Everyone checked their position relative to the ship every few seconds.

Knowing it would take at least ten minutes to get ready and turn the ship around, Tom soon called for everyone to get back inside. Again, Dr. de Vie lagged behind and was seen by Bud to be setting something else down behind a small bump in the wormhole wall. When he asked de Vie what it had been, the explanation was, “One last device I forgot to put out there.”

“Mr. Swift?” one of the scientists asked as they were getting harnessed up. “If we came in using that antimatter blast, how do we get back out. Surely we have not come far enough inside the hole to protect our sensitive equipment if we must blast back out!”

“Right. In fact, we don't have to use anything more than a little nudge to get out. The mouth of the hole is normally microscopically tiny from the outside, but from in here it is not only larger, it is surprisingly flexible and expands with no effort. That's why we can trail the data cable bundle behind us and not worry that it might get stretched to the breaking point or crushed.”

He nodded to Bud and they both ran their hands over the various controls. The ship which had never fully settled down onto the surface lifted only a few inches and began to slowly turn around. Soon, everyone could see the mouth of the hole. From inside it looked to be many yards wide.

Tom slid one finger up a control and the ship inched forward. Fifteen seconds later they were back outside.

In the distance *Goliath* sat waiting for them.

“Tom to *Goliath*. We're back!”

A slightly nervous voice of Hank Sterling answered them. “That's good. Really good. Uhh, come back as fast as you dare. I need to talk to you, skipper. Pronto!”

CHAPTER 13 /

THROUGH THE WORM AND A SHOCK

AFTER DOCKING, Tom left Bud to get the others out and the data cables from their equipment fed in through a special port while he raced up to the control room.

“Here, Hank!” he announced as he got to the top of the stairs.

“Oh, good! Listen. Before the rest get in I have to tell you your father and Harlan Ames called to try to get you to put off the trip only they were fifteen minutes too late. It turns out that one of the scientists may well be an impostor. A body was found that authorities believe might be the real Felipe de Vie!”

Tom was thunderstruck. Finally, he managed to get out, “Are they certain?”

Hank nodded. “Ninety percent plus, and the autopsy will be finished in about five or six hours so we’ll know absolutely by then. Your dad promised to call you immediately once he hears. So, what do we do?”

“We go on as if nothing has happened. No word to anyone else, not even Bud. Does anyone else know?”

“Me, Zimby and Slim. Red was on break when the news came in. I’ll tell the other two to keep their lips sealed.”

The call had come in shortly after the collider team and about half the other crewmen had gone back to work. None of them was any the wiser. All others had still been in their cabins resting at that time.

The one man Tom wanted to be in on things was Gary Bradley. Technically the number three man in Security back at Enterprises, he was on this trip both to observe the large crew and keep anything from getting out of hand in case of stress or personal crisis, he also was training as a radio operator and so was their second man at that panel.

The inventor walked over and knelt next to him. In a very low voice he asked if Gary knew what was going on back on Earth.

“Yeah. Harlan sent a pre-call text message directly to me giving me a heads up. I’m standing by to take whatever action is necessary. I know you and your dad hate weapons, but I have both an e-gun I keep hidden in my boot, and I also have a new type of small scatter gun. Shoots four dozen tiny plastic pellets up to thirty feet that can

penetrate clothing and skin. Inside of ten feet it can be fatal and between that and the outer range it will do some notable damage.”

Tom sighed. He hated the realities of the day that made such deadly weapons almost mandatory. “Outside of that range?”

“Pellets hurt like the very dickens out to fifty feet and at that point they break apart. Ditto they dissolve if they hit anything solid like a wall or a pressure bulkhead. Don't worry, skipper. Last resort only!”

The inventor stood back up and patted his Security man on the shoulder. “Glad to have you on duty, Gary. Oh, and I hear you're in danger of becoming a great radioman. I'd watch out or you might have a change of career!” He grinned at the man.

Bradley snorted. “Fat chance of that! Harlan would never let me go.”

About half an hour later the scientists and Bud, and three crewmen who had gone out to assist in connecting the data bundle to the large ship, came inside. While the others went to their rooms to take off space suits and get back into regular clothing—including a change of their gravity undersuits that had universally become damp with perspiration—the flyer came over to ask Tom if there was anything else to do to prepare for their longer trip.

“Nope. You go get shed of that suit and cleaned up and then take a nap. I'll be doing the same in about an hour.”

Bud, sensing something might be up, looked concerned at his friend. Tom saw this and tried to put on a smile. “Go!”

“Okaaaaayyy,” Bud said slowly but took one more look into his friend's face. Seeing nothing there, he shrugged and headed for their shared quarters just off the control room. Like all senior and flight personnel, their rooms were seconds away from their stations.

Tom's mind was torn. Did he just go ahead and head into the wormhole and hope that Gary and the others could contain the impostor—if he indeed turned out to be one—for the week he and Bud might be in the other solar system?

While he worried about this, Gary called over to him.

“Skipper? Got a radio call coming in from your father. Want it over at your station or in your quarters?” He had slightly emphasized the last suggestion.

“Guess I'll take it in my quarters. Thanks, Gary.” He rose and walked briskly to the door of the room he shared with Bud.

“Hey, Tom. What brings you to our luxury apartment this early. I thought you had lots more to do before you could attach head to

pillow—” Bud started to say but petered out on seeing the concerned look on his friend's face.

“We might have a problem and this entire operation could be in jeopardy, Bud,” Tom replied having just decided he needed to let the dark haired flyer in on what was possibly going to happen. His explanation was short and to the point.

Once he heard about the possible substitution, Bud let out a low whistle. “Jetz! Answer you dad’s call and let’s find out.”

“Dad? It’s Tom. Gary filled me in and I’m here with Bud. What information do you have?”

Even with Tom’s amazing Private Ear Radio and its nearly instantaneous transmission, it still took about a second for his voice to reach Earth and his father’s response to begin.

“Son. The autopsy on the body they discovered shows it *was* the real Felipe de Vie. Doc confirmed that the blood samples he took from the man you have do not match de Vie’s records in France in any way. Like you, the real Doctor was AB negative. Our false Doctor is O positive. Harlan has asked Gary to listen in on this so the following is for both of you. Since we have no idea who or why this other man is with you, Harlan wants him captured and subdued. I also understand from Doc that your medic has a shot she can give in an emergency—and boy is this ever one!—that will knock the man out and keep him out for up to a month. She’ll need to get an intravenous tube in him for nourishment and a catheter to remove urine, but he is to be kept totally quarantined.”

“Understood, Dad. He is below now resting, or at least is supposed to be. I’ll have Gary relieved and we’ll go down in a minute. I guess I’m going to need to rewire the door of his room and the shared bathroom so it cannot be opened from inside just in case he manages to wake up. Uhh,” Tom paused. “Should I scrub the mission and bring this man back?” He hoped that the “Please don’t say yes” tone of his voice wasn’t too obvious.

There was a pause at the Enterprises end before Harlan Ames’ voice came on.

“No, Tom. As long as you can get this man under complete control, *whatever that takes, Gary*, go ahead with what you set out to accomplish. We’ll be prepared to take over when you get back.” Again there was a brief pause before Damon came back on.

“Take care, Son, but trust Gary to do what is right.”

Tom agreed to do that and ended the call.

When he and Bud came out into the control room Gary was

already waiting for them. The other radio operator sat at the station apparently unaware of what was about to happen.

The three men started for the central staircase and were joined by Hank. Without saying anything he nodded to acknowledge his readiness for whatever might be about to occur.

As they approached the cabin of their impostor, Gary reached down and pulled the e-gun from his boot top. Designed by Tom as a modern day hand-held version of the original Tom Swift's electric rifle, it could stun, completely incapacitate or even kill.

Tom glanced over to see that the Security man had it on the middle setting.

"Let me take the lead," Gary told them. "Hank, next. Stand to the side and not directly outside the door." He reached out with one hand as the other held the weapon steady as a rock. Pressing the button to open the door he dropped to his knees.

It was good that he did this as a bolt of electrical energy sizzled out the door and over his head. Gary took aim from his low position and squeezed the trigger. A stifled yelp and the sound of a body slapping hard against the deck was all the others heard. The Security man jumped up and into the room.

The man lay at an odd angle, obviously completely knocked out and also obviously armed with more than his own e-gun that had been set to the kill position. To everyone's dismay on his bed sat a pair of what appeared to be hand grenades.

Gary turned and ushered the others out of the room. "You go get ready for your trip. I'll get our little doctor to give the bad man the sleepy juice shot and then get him trussed up so tight he won't be able to move even if he wakes up. Go!"

Everybody knew that Gary Bradley was a no nonsense man so when he assured them he would have everything taken care of, the three men with him believed it.

Of course it was now impossible to get any sleep for the two men, but Tom and Bud did get some rest before suiting up and entering the *Galaxy Traveler*.

The rest of the crew had been briefed by Tom about the false Frenchman and were in accord that he must not be allowed anywhere their equipment.

The ship held a trio of antimatter charges. The first to be used to enter from this end, the second to come back, plus a spare.

This time the computer did not slow and halt their progress once inside. This time they hit the opening and raced through coming to

the opposite end just forty minutes later. And, like the first time they both experiences such intense pain they passed out seconds after entering the hole.

But, not before Tom and Bud detected a bright flash inside the wormhole just as they entered.

When they awoke both agreed that flash had not been expected and it was a mystery to them until Bud recalled seeing the false de Vie placing something in the wormhole just before coming back to the ship.

“One of his grenades?” Bud inquired. Tom shrugged. They would not know until they could get in contact with *Goliath*, and that would need to wait until they could install the new communications probe at this end. One of the unfortunate side-effects of racing into and out of the wormhole was that the current probe had been smashed into tiny pieces by the nose of the *Traveler*.

The two took a few minutes to check the status of the ship and found it to be in top operating condition, so they swung their helmets up over their heads, sealed them and checked each other’s suit. All was go!

Outside, and as Tom was extracting the new probe along with its high-resolution cameras and enhanced electronics, Bud floated around the ship giving it the once over.

“Here’s a little something, skipper,” he called out. “That flash must have been some sort of explosion. We picked up a bit of soot on the port side wing back here. It wipes off with my gauntlet, and I’ll bet it came from that thing de Vie planted. No damage, though. I’m coming around the back to get the new data link cable.”

A minute later he showed the inventor the black on his fingertips then handed him the one-inch-thick cable they had trailed after them.

Tom clicked the end into position in the receptacle on the probe and was immediately rewarded by only two of the three green LEDs showing the system was working, but they were not receiving power through the cable.

Whatever the flash had been it had evidently damaged the old cable. Now Tom hoped it had not disturbed or damaged any of the scientific equipment that had been installed in the wormhole.

“Okay. We can’t do anything more than trail back another data cable. Fortunately Dad suggested bringing a spare. Until we get back we are out of contact. Let’s get back inside the ship and take a look at what might have changed around here,” Tom suggested.

They had been outside a little more than two hours and both wanted to take a rest and have something to eat.

Before letting Bud remove his gloves, Tom took a tissue from its storage compartment and wiped as much of the black sooty substance off. This he sealed inside one of their trash bags. It would get studied by Harlan's people once they returned.

Again sitting in their seats, the two took a ten-minute break for some sandwiches before they started moving forward bringing the nose around about fifty degrees. There, as before, sat the incredible sight of a relatively small black hole. At present it was running in the proper direction; things could be seen being drawn into the upper area and sucked in by the incredible force of the singularity's gravity. Both knew this would reverse at regular intervals and everything sucked in would be spewed back out.

Black holes were not supposed to be able to do that!

Tom performed an electronic search to see if there were any other ships in the vicinity. He was secretly hoping to see their ship either from this visit or, in a wild notion, from the first visit a couple years earlier.

There was nothing. Whatever the original probe had seen was no longer here. That made sense as the first visit was about half the time between the probe sighting and today, and this trip was to be much, much shorter.

What Tom did detect was something that made his heart race.

To their starboard and approximately twenty million miles away sat what appeared to be a star.

That, like the black hole, was an impossibility.

This was not a binary system; it had just the single central sun.

It seemed to be very small. Perhaps so small that it could be a collapsed star that had wandered into the system. But, that was also improbable if not impossible. A collapsed star, believed by some to be the precursor to formation of a black hole, would have an incredible gravity field. Theory held that a single cubic inch of such material might weigh as much as the Moon.

This was registering no gravity field. In fact, As he studied the readouts, Tom was convinced that whatever it was might not have much mass at all, but it was emitting bright light over the widest spectrum he had ever encountered.

Having been rather brash and impetuous in his youth, time and responsibility to his wife and growing family had mellowed the inventor. Now, rather than rushing in to see what was out there, he

piloted the ship in a huge arc around it. This took two days during which they took countless measurements and made a visual study of all the surrounding area of space.

True to the measurement of no gravitational pull, nothing seemed to be caught in its sphere of influence, but there were things that just were not right about it. It did not, for instance, give off any signature radiation that he could equate with any known element or substance. Even the light waves seemed devoid of energy signatures.

“Could it be some type of new element?” Bud asked.

“I suppose anything is possible, Bud. Our long-range spectrometer ought to register something. It doesn’t. If I didn’t know better I’d say that thing out there is in this universe but is not. Does that make sense?”

“You mean a parallel existence?” On seeing the surprise on Tom’s face, Bud smiled. “I’ve been studying, skipper. You *do* know I can read, don’t you?”

“Ha-ha, it is to laugh, Bud,” Tom said with a wink. “And, in a science fiction sort of way, you are right. It is what I might term simultaneous inter-dimensional appearance. It is something that resides in one dimensional plane of existence and yet it also appears in another bringing with it some or even all of its, hmmm, existence while remaining rooted back where it comes from. It’s a theory.”

Bud had been nodding slightly, but his lips pursed as he tried to digest this information. He gave up seconds later and asked, “How?”

“That I don’t know. Nobody does. This is something that was postulated to explain some of the odd aspects of black holes. By rights, and if they are what most scientists believe they should be, they should suck in huge amounts of matter and leave vast areas of space totally empty. They don’t.”

“What? I thought they sucked in everything including light? You know, the old even horizon?”

“No. Not really. Other than the one out here we’ve never been close enough to study a real black hole, so a lot of what we think we know is observed supposition. Take our friendly neighborhood reverse-running hole out here. Were it actually a collapsed star that had grown so dense it has a gravity surpassing one thousand suns, why does it only take in and toss out at the top and not all around?” Tom’s head tilted with the question.

Bud was stumped. He had never thought of it like that.

“Wait. If I get this right, a true collapsed star would just suck in things from all around it. As in each and every degree all the way around no matter what direction you talk about.”

Tom gave him one good nod.

“Wow. That’s a lot to take in. So what we see as these black holes might not actually exist in our, uh, dimension but somewhere or some time else and we see just a tiny bit sort of popping up and saying ‘Boo!’ Is that it?”

“That is as good a theory as I can come up with. The first time I heard the term ‘event horizon’ in regards a black hole it just didn’t ring true. How could it be? And our new small speck out there,” his arm swung around to point at the view screen, “is just as mystifying as the hole. Is it here or is it someplace else and we’re just seeing a pinpoint of it? Is that a stellar tip of an energy iceberg?”

They sat in silence until Bud straightened up.

“But, we are going to get closer and try to grab onto it. Right?”

“That, my impetuous and eager friend, we are certainly going to do, but only after another day or two of observation. I still want to see if we can detect any time dilation or shift around it.”

“And, if it is tiny like it looks from here, do we try to take it back home?”

The inventor took a deep breath and let it out in a long hiss between his teeth.

“Your steam kettle impression tells me you are about to say we have to be ultra cautious.”

Tom nodded. “We do. What, for instance, do we do if we grab it, get it back through the wormhole, and then it begins acting up? Starts doing very bad things in our own solar system. How do we handle that?”

It took them another day to decide what to do. During that period Tom make countless observations and even brought the ship to within one hundred miles of the bright dot in space. His calculations said it would be between thirteen and fourteen inches across and almost totally round. It was as icy cold as the space surrounding it and yet gave off a constant stream of light.

It wasn’t energy, but it was light. It was the coldest light Tom could imagine and also a light source second only to the star at the center of this and their own solar systems as seen from space where no atmosphere could reduce the intense power.

He was so very close to abandoning the mission and suggesting a return at a later date when the impossible occurred. As they swung

around the object their nose happened to point in the relative direction of the wormhole. At the highest magnification the ship could provide a bright, white, elongated and yet angular ship shot from the hole. It slowed and maneuvered around before halting.

Tom poured on the acceleration throwing them both back into their seats.

It took two hours but they arrived in time to watch the unthinkable happen. Two space suited figures were just completing the connection of a long cable snaking out of nowhere to a round probe. They seemed to be in conversation a minute before one of them pointed to the ship.

After that they propelled themselves back to the airlock, climbed inside and disappeared.

As Tom and Bud sat in the cockpit of the *Galaxy Traveler*, they could plainly see Tom and Bud getting into their seats in the *Galaxy Traveler*, continuing to talk and eat something that looked, when the inventor used the ship's video camera to zoom in, very much like sandwiches.

CHAPTER 14 /

CAPTURE... AND NOW WHAT?

TOM AND BUD could find no words to describe what they believed they were seeing. The copy of the *Galaxy Traveler*—no, that wasn't right; it *was* the *Galaxy Traveler*—sat a thousand feet away from them and had entered the solar system through the wormhole.

Exactly as they had a few days before. And the two men inside and outside of that ship did exactly what they had done.

Finally, Tom stated, "I think we have to believe that is us, Bud. For whatever reason, they can't see us and that's probably because we haven't happened yet. We are in their future. We can see them because what they are doing already happened. They are in our past."

"Does that answer any of the time travel mysteries or paradoxes you've told me about?"

Tom let out a barking chuckle. "If it doesn't, it ought to! As I recall in about five minutes we headed straight forward. That means coming this direction. I don't want to test the idea of two of the same person or object meeting in the same place. Let's move off to the side."

He maneuvered the ship around to the right and eventually had it positioned a mile off the port side of the earlier *Traveler*.

While they waited for the other ship to move, Tom checked some of the readouts. What he saw made him quickly draw in his breath. "Bud! According to the computer scans at the exact same moment the other ship came through the hole, that little bright spot pulsed both brightness and gave off triple its normal amount of light. I could be led to believing the two are connected in some way. Oh, there they, I mean there we go."

"Do we follow ourselves, or could that make the other us feel as if we are being watched. Hey! You don't think that when people have that 'someone is looking at me' feeling that it might be themselves, just in another time?"

"Honest, Bud? I have no idea what to think. I could make rash statements based on very little information and be totally wrong, or totally right or anything in between, so I'm not going to play the guessing game."

They decided that for the time being they would play the wait and watch game. That lasted about a half day while they shadowed

their other selves, but it soon grew tiresome and Tom decided to go back to the bright spot for some very close study.

What happened as they drew nearer astonished them both, but made Tom excited.

Ghost-like images of themselves seemingly from about an hour earlier could be viewed by watching their reflections in the dark view screen. Direct viewing did not work, but this reflected viewing, for some unknown reason, did. Tom tried to do as detailed a study as possible, but the sad fact was the *Traveler* lacked much of the instrumentation and devices he would normally need to examine a phenomena such as this.

On day five he made a decision.

“Now, I don’t have any idea if what I intend to do will mess things up for us, or for them,” he said pointing at a random spot outside the ship but meaning the other *Traveler* and their other selves, “but I know the only thing to do is to... check that. There are two things to do. One, we just go home with the electronic data and be satisfied. In other words we leave that thing behind.”

Bud grinned. “Or, we do what we both know you really want and that is to see if we can first grab hold of that and then also see if we can get it into the containment compartment and take it home with us.”

“Yes. That is exactly the other thing. How do *you* feel about it? What I mean is this could be dangerous to us both. We would go slow and steady and take things a step at a time, but in the end, even physical contact with that might blow up in our faces. Literally!”

Bud thought about the options. In his heart he wanted Tom to have his way and to try to capture the object. But, Tom was going to be a father in several months and the flyer was aware how much his young wife depended on him emotionally.

Then there was his own wife whose last words in his ear before telling him she loved him had been, “Take no chances. You have to come back. Got it?” He had and did get it, but ultimately knew he would back whatever Tom suggested.

“Skipper? As far as I’m concerned, if all this thing does is the back in time parlor trick, I’m not certain what good it is. Now, if it could look forward and give us stock tips or a World Series winner, *that* would be something. Having said that, what if this lets the police look back at the scene of a crime? What if they could definitely see who shot someone, or kidnapped a child, or robbed a bank? That is most definitely something I’d like to see put to use.”

“Thanks, Bud. I was also wondering about the backward only

aspect. But, maybe like our black hole this runs one direction and then the other. Unless we stick around for days or even weeks we might never know. And so, I'd like to propose that we get very close and first see if we can touch that object. If we can line up some sort of straw and shoot out a spit wad and hit that, and assuming we don't anger it and make it explode or even disappear, the next thing is to try to grasp it with the Attractatron. What do you say?"

"I say yes, skipper. Go for it!"

* * * * *

In the end Tom could not devise a way to lob an object at the brilliant spot of light and so he decided to try the Attractatron. To both their delight and surprise the beam found something tangible to grasp and soon Tom moved it about twenty feet to his right.

Releasing it, he made a new series of measurements.

Everything remained the same as far as his instruments could tell him however when he attempted to locate the other ship—and he knew exactly where it ought to be—it was gone!

"There is something to do with the position of the thing," he muttered to himself as Bud drowsed in the seat next to him.

Very soon it would be tomorrow and the day they were supposed to go back into the wormhole. So, faster than he would have liked, Tom came to the decision that they had to try to get the object into the containment room behind them and to bring it back out the other end of the hole.

First, however, he wanted Bud to finish his sleep break and then he wanted to grab a few hours himself. The more time they had spent on this side of the hole, the more tired he was becoming.

Once the flyer awoke and was apprised of the decision, he nodded and agreed with it. "Now, don't think for a moment I've become your 'Yes' man, skipper, it's just that the more I've thought about it, the more I realize you can't get to grips with exactly what that is as long as we, and it, remain out here."

After a five hour nap, Tom felt refreshed and ready to tackle the job. What he had not planned on was it only taking about ten minutes.

The Attractatron once more grasped the object and was able to move it. This, to Tom, proved it had some mass in this universe and made him doubt his earlier theory that only a small part of it was in front of them. This was amplified when it slipped right into the magnetic containment vessel build into the ship. With no more fuss that setting a sleepy kitten in a basket the object, or anomaly or whatever it ought to be called, was snug in the closed vessel.

Getting back to the wormhole took a few hours but they arrived nearly seven hours before the schedule called for them to enter. Tom didn't wait. After taking one final scan of the area around them and still not seeing the other version of their ship, he positioned the ship in front of the hole's entrance, magnetically retrieved the end of the spare power and data cable to take back, set the computer program running and ejected the second of their antimatter loads.

It wasn't until five hours later that he and Bud awoke in the small medical room of *Goliath* with a worried Hank Sterling and their medico, Debbie, hovering over his bed.

"Are you okay, Tom?" the big man asked in a low voice.

Tom nodded and found that the back of his neck was very stiff and sore. "Yes. What happened?"

Hank looked at Debbie who shrugged. She placed the end of her stethoscope on Tom's bare chest and listened a moment.

"Seems to be fine, Hank, but I'll keep an eye on both their vitals for a few more hours. Go ahead and tell him."

"As soon as you entered the wormhole there was an explosion of some kind. It wiped out most of the scientific equipment inside and made communicating with your impossible. We were receiving no data from the probe and couldn't keep tabs on you. Did you see anything inside the hole or once you got there?"

Tom told him about the flash of light, the ghost image and the time dilation.

"I'm mostly certain that we brought back the source of that dilation, Hank. It is in the containment vessel in the *Traveler*. The first time I moved that strange object the other ship disappeared almost as if the act of movement flung it into another place. I don't really know. So, how badly have the scientists taken the loss of their equipment?"

"Not as badly as you might suppose. That is in part to a little magic our collider folks provided plus a little engineering shuffle on my part. They made a special shaped antimatter charge for me and I repurposed one of the little ships to carry a small pilot and a lot of replacement gear. We didn't get them everything they lost, but enough managed to get taken inside so they have been practically wetting themselves with happiness at the data coming out."

Tom was feeling tired so Hank excused himself saying he would come back in six hours.

Debbie felt Tom's forehead and smiled down at him.

"Seeing you laying there, sort of helpless, makes me understand what it must be like for your wife. I don't mean I've got a thing for

you, Tom, but it made me think how I would feel if my boyfriend or husband, whenever *that* happens, were to be ill or injured. It isn't pleasant I can tell you. But, how do you feel? Your vitals are good and strong but your white blood cell count is off. Nothing I'm not contending with and correcting, but it is strange. Doc never mentioned anything about that on your previous trip out there."

The inventor couldn't recall any mention of that either. He closed his eyes and almost immediately opened them as his shoulder was being jostled.

Hank looked down at him. "Wake up, skipper. It's been nearly ten hours. I let you sleep in." He grinned. "So, sorry for the nudging, but I need to get some command decisions out of you."

The first one involved the renegade impostor. Harlan had finally traced the man back to France and from there to China. He had hastily departed France as a teenager and disappeared in China. The only way he knew who he was had been via a blood typing and DNA classification course he had taken before leaving his home country.

"His name is Jean Clavelle and he is wanted by the French authorities for a possible murder committed just before he fled the country. As you no doubt have figured, he is dangerous and the French government have authorized anything up to and including constant sedation until he arrives in France."

Next, Hank mentioned the scientists. With the four day delay in getting any usable information coming back out of the hole, they were requesting an additional five days on site.

"If they are getting useful stuff, then all I can ask is how are we doing on supplies?" Tom inquired.

"Fine. We have enough to stay here an extra two weeks if need be. So, do I tell them the good news or do you want to?"

Tom gave a rueful chuckle. "I think our Debbie Doc is going to insist flyboy and I remain here for another day before we can be released."

"I heard that," grumbled Bud from under his covers. "I have to go to the bathroom and I do not wish to avail myself on that stupid plastic jug thing. Debbie?" he raised his voice and she came over. "Help get me upright and into the john, please. Nature and I have an almost immediate appointment!"

As she helped Bud to the bathroom, Tom looked at Hank. "You tell them they can have the same four days they missed out on. After that I need to get us back home as quickly as possible."

He saw that Hank was smiling and had to ask shy.

"Because they candidly told me they could do it all in three days

but wanted to offer five or even six so you could counter with four!”

Tom laughed causing Bud to raise his voice demanding that they stop having fun until he got back into bed.

Hank changed the subject. “I checked on the *Galaxy Traveler* and your little payload. Everything seems fine and I made certain the computer will keep the power flowing to the containment field indefinitely. She’s been reattached under the platform. And,” he looked at his young boss hoping he had done the right thing, “I also set things to eject the containment vessel should power get cut.”

Tom smiled reassuringly. “Couldn’t have asked for more. Thanks. Oh, here’s our wayward Bud back from potty time.” He told the flyer about the scientists and their request. At the thought these learned people could have a streak of the mischievous in them, Bud laughed.

By the following morning, ship’s time, Tom and Bud were ready to resume their normal shipboard duties. Debbie had sent their latest vitals via data link to Doc Simpson with her recommendation they be released from confinement. Doc heartily agreed and sent back, “If you are going to be doing serious diagnosis like a real doctor, I might need to send you off to real doctor school!”

Tom took charge of the ship with his first duty to call a meeting of the scientists to see where they were in the process of their investigations.

Only Jon could not drag himself away from a time-sensitive observation but he promised to listen in if they all remained close to his station.

The situation was better than he hoped. Even with the loss of some vital—and expensive—equipment they were gaining an incredible amount of knowledge about the makeup of the wormhole. There would be several years’ worth of data for them to take back that they and others might study.

“All in all, Tom,” Jon called over his shoulder, “unless the rest have objections, I believe we can shut things down a day early. That would be by, oh, around eleven in the evening tomorrow. The only question is whether you want to try to recover those instruments.”

Tom had thought about it and had even discussed things with Hank. Technically it was feasible to open the mouth of the wormhole and send the one-man ship back inside. He really did not wish to risk the *Galaxy Traveler* and her payload. But, as the large engineer pointed out, “Everything in there is connected out here via a pretty large cable. Why don’t we try to drag it all out using that?”

“I can’t actually think of a good reason to not try it,” the inventor had responded. “If that breaks we simply come back at a later date and recover things.”

They would not need to do that.

Tom decided to not use the enormous power of *Goliath* and instead launched another of their small auxiliary ships. Using a small clamp on the nose of the ship, it backed away from the mouth of the hole and the cable was gently pulled. One by one the pieces of equipment and sensor packages popped out and floated in space until the final piece—one of the original video packages that had been damaged by the bomb blast—came out.

A team led by Bud had everything disconnected and stowed in various bins and compartments two hours later.

After that it was a mandatory rest break and then *Goliath* made a slow and somewhat ponderous turn back toward Earth.

Before sending them racing forward the captain called his young bride and spent a full fifteen minutes telling her how much he loved her and listening to her say the same back to him.

* * * * *

Their prisoner was delivered to the FBI. It took them only a day to get back to Harlan with the news that the man in custody was indeed the wanted fugitive who had known ties with the ex-Frenchman, Lacrobat. While the man would say nothing for the four days, his temper finally snapped and he began shouting at his interrogators about how “Lacrobat will kill you all, and that damned Tom Swift as well!”

* * * * *

Damon sat in the conversation area of the large office. The younger Swift had returned to Earth a week earlier and had hoped to get into study of the incredible piece of matter they brought back. However, Damon had cautioned him to take things very slowly and to leave it in orbit for a few days while the inventor got a chance to spend time with his pregnant wife.

“We’ve left that anomaly in the hold of the *Traveler*, Son. Seems the safest place. And, while I know you are raring to go I will advise great caution. So much so that I have a suggestion I hope you will take. If not, I will make it an edict.” He looked very serious about this.

“Dad, I can make this exceptionally easy on you. If you say something really needs to happen, I’ll make certain it does. So, tell me what this is.”

“Okay. Here goes. I want you to study that thing remotely. At least at first. And I want that to happen up in space. Until we have a really good idea what that is made of, and the amount of power it contains, I would rather it not be brought down to Earth. Then,

once it is going to come down I want that to be into a special, highly-reinforced structure. If it can be, on some deserted island. If it really needs to be here, then deep. So deep that if it were an atomic bomb and exploded, all that would happen is the good people of Shopton would feel something akin to an earthquake.”

Tom had to think this over. A remote study was not difficult, only very limited. And constructing what amounted to a deep bunker could be managed. Enterprises already had a heavy bunker set in the side of a nearby hill that had been built when a threat of a nuclear bomb flown toward them in a remote aircraft had made it advisable. He mentioned that to his father and the older man smiled.

“I nearly forgot about that. But, I don’t want to cannibalize that so you will need to build something that strong but with ready access to everything we have here. Which means, now I think about it, you need to dig a very deep hole and make it within our four walls.”

At four miles on each side, Enterprises covered a lot of ground. Only about fifty percent of the actual surface contained anything and a lot of that was taxi and runway surface. There was a barren and rocky test area to the far eastern side, the one closest to Lake Carlopa, and an even larger unused area to the west.

Tom mentioned this area and his father promised to give it serious thought.

Goliath had been brought down for a landing back at Fearing Island leaving the smaller ship in an orbit about ten thousand miles farther out than the old Outpost in Space. It was sending back constant reports on its status and that of the containment vessel. In order to make any new observations Tom knew the ship would need to be brought into a lower orbit and the containment cube removed.

For three weeks he worked to amass a set of instruments necessary for his remote study before flying up in the *Challenger* and setting things in motion.

A new, separate power supply was one of the first things put in place. It was built into a small platform on which the containment cube would be sit, the new power attached and old removed in one swift action. There would be about one second where no power was keeping the containment field going, but with no apparent gravity mass Tom doubted the object would attract itself to the side of the cube. More likely it would just float around waiting until influenced by the return of power.

There were any number of things Tom would gladly volunteer to do rather than ask anyone else to put themselves in harm’s way. But

a concerted effort by Bashalli, Mr. Swift, his mother and even Bud and Sandy made him see the reasoning behind allowing another person to do the power changeover.

Slim Davis was not just a Swift pilot, he was a seasoned astronaut, one of the go-to people for space walks that included manual labor, and about the most sure-handed individual Tom knew.

Without fanfare, he lifted off by himself in *Challenger* and headed to the *Galaxy Traveler*, recently brought lower and parked in a twelve thousand mile orbit.

“I’m pulling up near the *Traveler*, skipper,” he reported an hour after liftoff. “Golly but she’s a good-looking little ship. Okay. Coming to a... stop. I’ve set the controls to maintain this distance, and that is two hundred fifty feet. I’ll go the rest of the way by backpack. I’ll call back when I’m outside.”

Tom was very nervous. It was one of the things that made his wife hate it when he chose to not be the driver in their car. He was *not* a good passenger always tensing up when she didn’t do something the very millisecond he would have.

The minutes passed slowly and Bud, in the seat next to his friend in the Communications building, reached over and patted him on the shoulder.

“Slim is tops, Tom. Stop drumming your fingers and just relax!”

“Slim to Tom. I’m outside and on the porch. Just heading over now.”

He kept up a near play-by-play description of what was happening as the containment cube was removed so when the moment of truth came and passed Tom had to mentally adjust himself.

“You’re finished? Is everything all hooked up?”

“Yes, worrywart. Old Slim here got the connection out in less time than it takes to rope a calf and the shiny new one shoved into that odd-shaped hole thing on the side. Seriously, skipper, she’s hooked up and I’ve got green lights. Heading back inside.”

Bud looked at his friend. “See? I told you!”

CHAPTER 15 /

POUR A BUILDING... BURY IT GOOD... CROSS YOUR FINGERS!

THE ACT of studying anything from a remote location by robotic devices will never be as good or as thorough as the same type of study done at close range by a trained human. That was why after all the years of remote lunar and planetary probes which moved with a ponderous slowness that made them an excruciating method of study, technology had given way to, and allowed, manned missions.

It was not a surprise when Tom reported his difficulties a week later that Mr. Swift changed his mind.

“Right. Then build the shelter and bring that thing down. It has remained benign for weeks now and I doubt it is just waiting to spring some sort of diabolical trap.”

Tom had to smile at that. He was of a similar opinion although the word “diabolical” had not come to his mind.

Knowing he would eventually be doing just that, the young inventor had already arranged for the necessary equipment. And, although there would be some traditional digging involved, he put a trio of his atomic earth blasters into play to perform the basic deep excavation.

Working on the principle of using the intense heat from a small atomic reactor to vaporize whatever it touched, the blasters made short work only having an issue with the dampness of the soil once they reached a depth of one hundred-thirty feet. That would be seepage from the nearby Lake Carlopa and digging became slower because of it. Great billows of steam emitted from the hole once water was reached. Fortunately, most of the work was done at night for security reasons so nobody saw the steam. Even folks at Enterprises coming in early in the morning thought it was just some low-lying fog.

Down and down, hour by hour over several nights the hole went. By the end of day four it was sixty feet wide by seventy-five feet long and one hundred feet deep.

Tom called an end to the blaster work and had two of them retrieved, cleaned and put back into storage. The third one he set to the task of creating the single access passage from the very bottom of the hole to a vertical shaft he would also blast down from the

surface a hundred feet away.

As work progressed on squaring up the walls, a special machine was brought out of storage. It was a high-density extruder that mixed a special formula concrete with tomasite for radiation safety and Durastress fibers for strength throughout and the created walls under such great pressure that they could barely be dented with sustained artillery fire and could contain a small nuclear explosion.

This machine went into action first creating a floor slab that was lowered into place within hours of coming from the machine. This was followed by interlocking walls that reached from the very bottom to about forty-five feet below ground level. Once the “cap” was added and sealed, the only way in and out would be through the adjacent shaft and access tube, and that would have multiple pressure doors to go through.

Hank Sterling and the old Swift Construction Company had not been idle. From Hank’s vacuu-form equipment came structural beams and braces that would end up as a fully constructed building down inside the hole. The Construction Company was turning out wall panels to be added plus interior room structures and electrical conduit.

Just two week from the start date, the building was finished and ready to have its guest, the time peculiarity, brought down and installed.

That would be placed inside a brand new containment room that would be set into one end of the lowest corridor and be fronted by a thick sheet of clear tomasite. On either side of the central hall would be the control room, power station, meeting rooms, an observation area and other spaces with both sides rising three floors.

Power was to be supplied by one of the large atomic power pods similar to those used on *Goliath*. With it, every power need for the entire subterranean building could be met three-times over. Nearly everything was staged and ready. Of course the anomaly could not simply be packaged and carried in by hand. It would need to be brought down to Enterprises, removed from the current containment vessel and placed carefully in the new one using an Attractatron. Once power was energized, everything else above the top ceiling would be lowered, connected, and made functional. The final step would be sealing the thick top slab to the sides and covering the entire thing with forty feet of heavy rocks and then a couple feet of dirt.

Once finished, and the grass sod planted on top, it would be difficult to detect where the actual building might be. Even the access at the top of the elevator shaft simply looked like a typical

runway equipment shed.

An additional week of night work made the building ready with everything covered by special tarpaulins by day. From the air it simply looked as if a new portion of runway might be in the works.

The day came, and Tom could not be convinced that he and Bud were not the right ones to go fetch the anomaly.

“We will be up and down in about three hours bringing the current platform back on the porch of *Challenger*.” By that Tom meant the railed outside deck area that surrounded the lower level of the *Challenger’s* three levels and specifically the slightly wider area in front of the hangar.

“We’ll head out to Fearing at dinner time and have the package back at Enterprises at midnight. By one a.m. it will be in its new home and we can begin buttoning up the building.”

Preparations were minimal. Now that the underground building was ready to be populated and sealed up, it would be a fairly simple process to extract the containment vessel from its current position, transport it slowly and surely to Enterprises where the *Challenger* would land within feet of the hole, and then lowered using a portable Attractatron mounted to a heavy-duty boom into position.

“Remind me again what we are doing once the thingie is in the hole,” Bud requested as he and Tom crossed the tarmac heading for Tom’s private SE-11 jet.

“Okay,” Tom responded slowing slightly. “I go into the hole in a special suit the ladies in Uniforms made just for this. Overlapping plates of tomasite mounted to a Durastress and rubber undersuit. Not really sure why I designed it like that or how effective it might be if things get out of hand, but there you are. You will be the communication link with Larry Moss who will operate the boom and the Attractatron.”

“With you so far, but since I haven’t been allowed down there what the heck is going to go on with the time thing?”

Tom smiled. They had arrived next to the open-sided structure known as the Barn and at the jet. As they climbed into the aircraft, Tom said, “We really have to come up with a better description or name for the anomaly. That aside, I will be standing well back and directing the lowering of the containment vessel. Then, after I release the top the Attractatron will narrow its beam and pick up the anomaly.”

“Time Dot,” Bud offered.

Tom shook his head. “Not absolutely certain it was responsible

for the apparent time phenomena, Bud. Anyway, I'll direct Larry on how to lower it and exactly how to position it inside the new containment equipment down there. Then, once I get things turned on I step back out through the side tunnel and come up. After that it will be up to the construction folks to set the other things in place, make the necessary connections and get the top on before the sun comes up."

During this part of their conversation, Tom had closed the cockpit, started the engines and run the jet through all of its self checks. With all green lights on the control panel he moved the throttles forward and they taxied out to the shorter of the west side runways. With immediate take-off clearance they were in the air within a few minutes of arriving at the jet.

"Ya?"

"What?" Tom asked taking a side look at his friend.

"Y-A. YA," Bud explained. "Yesterday Anomaly. Anything?"

Tom shook his head but grinned. "Not there yet, flyboy. Keep thinking about it, though."

The *Challenger* was waiting for them when they taxied up next to it. The evening ground crew had the ship ready. All systems had been activated and the only thing Tom and Bud needed to do was climb the ladder to the "porch" outside the lower level hangar and enter the ship.

Five minutes after touching down in a jet they headed for space in what had been—before *Sutter* and the *Goliath*—Tom's largest space ship. Still, it had an intimate feel to him and even with its recently updated operational systems, it had a sameness to it he had come to appreciate over the years.

They would also be using an Attractatron or grab onto the containment vessel and its power supply, then use that to bring the pair onto the porch where they would be lashed down for the trip back to Shopton.

In order to accommodate the necessary movement and placement, the Attractatron had been mounted on an extendible arm and that was attached to the outer circular girder of the ship so it could not just grab something away from the ship, it could also swing around pointing back at the ship and set its cargo down precisely where it was supposed to go. While Tom held their position it would be up to Bud to operate the ray that had first been developed to grab onto and fling space debris out of any potential collision path with the Moon and the Earth.

As powerful as it was it was a fairly refined device, and Tom had

ample reason to believe it would do the trick both in orbit as well as back at Enterprises. It had proven up to the job in the other solar system after all.

His trust was well placed.

With the *Challenger* hanging about one hundred feet away from the containment vessel, Bud latched onto it and began to slowly bring it back to the ship. Five minutes after they started, the young men were both suited up and heading outside to strap their capture down.

Unknowingly, Bud nearly shoved their cargo back off the deck when he turned around to pull the first hold-down strap from a bundle of them magnetically held to the outside wall, and his backpack hit one corner. With nothing to hold it except inertia, and the mass was not all that much to begin with, the containment cube tilted to one side and its edge lifted from the surface as it began to rotate away from him.

Tom heard Bud's cry and tried to make a fast grab of the smooth surface that had no hand holds on it. His fingers slipped a few times before the rubber fingertips got a hold and he, too, was lifted from the deck by the greater mass and might have followed the cube off the side of the ship had not Bud grasped one of his feet.

It took another few minutes to get the Attractatron back on line and to pull in their cargo. This time, Bud remained in the control room holding the cube in place while Tom got the first of twenty straps secured. He only came back out once four of them were in place and there would be no chance to knock the thing away again.

Sheepishly, he looked at Tom through his clear faceplate. "Score negative one for the goof patrol, I guess."

Tom shook his head. "If it wasn't you it would have been me. I was just about to do that same turn when you cried out. Oh, and thanks for grabbing me by hand. I've never tried using the Attractatron on a person and don't really wish to be the guinea pig."

In no time the cube and power supply were secure and they were back at the controls. Bud kept a look out on a monitor showing the outside deck area while Tom got them headed back to Earth.

The trip down was considerably longer than the one up. It had to be. As they entered denser and denser air, the buffeting on the ship grew. A normal descent was so fast that the ship overcame such air movement. This time it was subject to normal physical forces. The slow descent also kept heat from building up as they came down.

They touched down five minutes ahead of schedule on an area of runway fewer than fifty feet from the southern edge of the new hole.

Waiting for them in darkness—even the runway lights had been doused and FAA-standard lighted “X” markers placed at each end of the two parallel runways marking them as closed—were about thirty men and women plus most of the available heavy construction equipment owned by Enterprises.

While a traditional crane swung around, six people specializing in cargo handling swarmed up the ladder and brought with them a tight mesh cargo net, a plastic-coated cable, and a hand-crank device known as a “come along.” The cable was looped around the upper portion of the cube while the come along was attached to one of the ship’s support girders. Next, the cable end was threaded through the gears and one man was able to ratcheted the handle back and forth to pick up slack, and then he moved the handle three more times and the far side tilted up a few inches.

As much of the net as possible was shoved as far under as possible, tension was released, and the cube was allowed to tilt back down.

The process was repeated on the opposite side and before long the team had the net under the cube and power supply, and connected at the top to a heavy cable coming from the crane. Slowly, so that the handlers could control its slide to the edge, the crane operator took up the slack and the entire package lifted off the deck. The handlers used a rope knotted to the net to let it swing out and away from the ship under their control until finally it was straight down from the end of the crane boom.

Ten more minutes saw it being swung over to the hole and lowered with a precision Tom marveled at. By the time the cargo reached the bottom of the hole he was standing there with the only other man inside... the one directing the movements of the crane operator.

“The moment you get it on the floor next to the new containment room I want you to take off, Peter. Bud is going to move the *Challenger* over here and use the Attractatron to pull our guest from the box and put it away. I need to be here to activate things but you don’t.”

Peter had been listening but paying more attention to the job at hand. A minute later the cargo was settled on the lowest level floor and the net had gone slack.

“Skipper. Unless you have some special multiple arm skills I don’t know about, it’s gonna take us both to get that cargo net detached. So, I stay for another minute or so, and then it’s your party!”

Tom tapped the TeleVoc pin under his collar and informed Bud

of the plans.

“Thought you might not be able to do everything yourself, skipper,” the flyers cheerful voice came back. “Just let your friendly neighborhood Attractatron Airman know when he is to go into action.”

“Will do. Get ready to move the ship into position. You might need to wait until the crane has pulled back so let me know when you are set for the next step.”

Tom and Peter clambered up the slack net and reached opposite sides of the cube. With Tom holding onto the shackle, Peter turned the retaining screw and soon had it ready to be pulled out.

“You climb on down while the cable is still holding the net, Tom.” The young inventor did this and was standing next to the cube a moment later.

Peter climbed up and did pull the retaining pin out causing the net to drop all around the cube and onto the floor. Then, with a simple thumbs up signal, the cable rose a foot. He put the retainer back in and gave it a couple twists. To Tom’s amazement, the man who had been standing on top of the cube, slipped one foot into the shackle and gave the signal again.

He and the cable rose out of the hole leaving Tom alone. *Of course*, he thought. *How else would he get out? Certainly not by walking and taking the elevator!* He chuckled as he activated the TeleVoc again.

“Okay, flyboy. Time to lift off the top of the box and get our friend into its new home.” The inventor reached up and began disconnecting the hold-down latches.

“You just be sure to stand back, skipper. Like as in all the way to the other side of the building and even then I’d prefer you to be inside the tunnel and behind at least one set of doors even in that strange suit of yours. If you won’t do that for me, think about Bashalli and the little Tom or Thomasina. Huh?”

“Right. Heading there now. Give me thirty seconds and then its *your* party.”

Slipping inside the tunnel and going through the first doors that opened and closed like those on an elevator, Tom wished he had thought to mount a camera up at ground level and have a monitor with him. He began taking off the clumsy suit. It would not be necessary once the anomaly was in the containment vessel.

Bud gave a play-by-play of the events over his TeleVoc.

“I’m grabbing the top of the container, Tom. Got it... and... lifting

it away. Say, is the containment field going to pose a problem?”

“No. I set things up so that once the top is off all you need to do is wait five seconds, which is now past, and the time ball is just floating. You’ve got fifteen seconds to get it out.”

“It’s coming up right now,” Bud reported. “And, I think I need to raise it about five more feet before... right. I have the beam swinging it over to the new room. Just another few feet and... In! Okay, it is inside and sitting on that special plinth you put there. Uh, it’s starting to waver a bit. Brighter and then darker. What should I do?”

Tom had to think a second. “Get the beam off it and back away. I’m going in to close the box.”

He hit the **OPEN** button and the doors slid to the sides. Striding quickly Tom reached the small control panel mounted to the right of the clear-fronted containment room. His right hand slapped against the green button and a slight thudding sound could be heard. The following hiss told him that the air was being pumped out and a vacuum similar to outer space was about to be achieved.

A small red LED on the panel turned amber and then green as the pump slowed and stopped.

A deep thrum of electrical energy being released announced that the magnetic containment field was once again surrounding the object. He glanced through the window and smiled on seeing the ball was now floating about five inches above the clear tomasite plinth.

“She’s contained and seems to be happy. I’m coming up,” Tom announced after three more minutes.

Again, Tom entered the tunnel through the first doors. A second pair were set just ten feet further along the tunnel. As those opened, the first of the blast-retaining walls slid upward into its recess. Should it be necessary to lower it, a simple cut of electricity would allow gravity to drop it down in under one second.

Another such panel slid up twenty more feet down the corridor to reveal yet a third set of sliding doors. These, Tom knew, were to the actual elevator.

He stepped inside and pressed the one and only button. If pressed at the surface it would signal the elevator car to descend. When pressed at the bottom, it would bring the car to the surface.

He knew the ride to the surface would take sixteen seconds. Seemingly slow, but with no way to mount a cable and pulley system in the shed above him, the car rode up and down on a pneumatic

shaft.

Without warning, the car stopped moving and shook. Next it juddered up and down a few inches before ceasing all movement.

Tom was never one to give into panic, so he patiently reached out and pressed the button again.

Nothing.

He pressed a couple more times and got the same results. Reaching up he tapped his TeleVoc. He received no slight *ping* to tell him there was a connection available.

Even though he knew he was surrounded by tomasite walls, making regular communication impossible, he tried making a call. In his mind he thought Bud's name and silently used his mouth to form the word.

He really did not expect his call to be answered and so wasn't surprised when all he got back was nothing.

He looked around at the car. It had been purchased from a company specializing in them and was nearly identical to those used in most of the multi-floor building at Enterprises. Easy to wipe down walls, easy to clean carpet and a basic control panel. The one thing it did not have was an emergency call button. It did have a small phone hidden behind a swing out cover. He reached in and pulled it out, pressed the button and put the receiver to his ear.

Tom half expected to hear music on hold. He remembered that the circuits for the building would not be completed until the entire structure was complete and buried. He hung the phone up and started looking around. For security reasons there was no magic hatch at the top of the car.

He hoped that some sort of alarm had been sounded when the elevator had stopped. He also hoped that even if there was no alarm that someone, Bud for instance, would begin to worry about him not stepping from the small shed at the top of the elevator shaft and sound an alarm.

What he did not expect was for the lights to go out, the elevator car to shake violently and then, as if the pneumatic cylinder on which it rode had collapsed, Tom, trapped in a dead elevator, plunged downward!

CHAPTER 16 /

HOLDING THE BARELY CONTAINABLE

TOM WAS used to emergency situations. Any truly good pilot is. Rather than panicking which he knew would take up precious time, he dropped straight to the floor. Impact would be in about one second.

But, rather than the potentially deadly instant deceleration of hitting the bottom of the shaft, the elevator slowed incredibly fast and then bounced slightly. Knowing he must be right at the bottom, he decided to stand up. A minute later the phone buzzed at him.

“Impossible drop central,” he answered feeling lucky to be alive and uninjured.

“Skipper?” Bud’s frantic voice shouted in his ear.

“Yes, Bud. Who were you expecting to answer?”

“Huh? Oh, sorry,” the flyer said sheepishly. “One of the trucks accidentally rolled over the temporary power line to the shed and it broke. Man, I thought you’d be a goner. It took a minute to get the phone connection hooked up.”

Tom checked himself. There were no signs of anything broken but he knew his backside would be bruised for a few days. “I’m fine. Really. Bumped up a bit but basically fine. When do you think you can get me out? With the power cut the only thing down here still running will be the containment field.”

As if to answer his question, the lights came back on a second later.

“Oh. I’ve got power now. What’s going on up there?”

“Hang on a second,” Bud answered and the line went silent. About a half minute later he came back on. “Turns out only a power coupling got disconnected. They’ve got it back together and tell me you should be able to come up now.”

Tom reached over and pressed the button. The elevator began to move back up. When the doors opened he stepped out and found himself wrapped in a bear hug from his friend.

Another man, Walter Dunham, stepped over to them.

“Gee, Tom. I’m so sorry for the scare. I could have bet a hundred bucks I had another fifteen feet before I would have backed over that cable. You okay?” He looked relieved and very concerned.

“Yes, Walter. I am. I guess I should have allowed small lights to be added to that line, but what with the need for absolute secrecy... well—” and he left the rest unsaid.

The power outage had caused only five minutes delay and so work got back on pace quickly. By two a.m. Tom and Bud headed home; it had been a very long day for them, and the inventor knew he needed to be back at Enterprises in about five hours.

By the time he arrived, and drove straight from the gate to the new building site, it was to find... nothing!

The “burial crew” had not only inserted the rest of the building and locked it up tight, they had covered the top with the various materials and even rolled out new turf. Unless you stood right on it or flew a few yards over it, you would be hard pressed to see that anything had gone on. Even at that, you would be equally hard pressed to think anything other than, “Somebody decided to replace some dead grass out there.”

As he stood on top of the new building a second car pulled up and he was joined by his father.

“I see that the building is all closed up, so I have to believe your time anomaly is all secure. Oh, and good morning, Son.”

“Good morning, Dad. Yeah. Now all I have to do is figure out what to do with the darned thing.” He grinned. “Study it, of course, but at some point I’m going to have to decide whether to dig the thing back up and return it.”

Damon Swift nodded. “Until then, I don’t need to tell you to be careful.” He shook Tom’s hand and went back to his own car. Before he got in he called over, “Oh, and please find something else to do with this once your experiments are over. It cost the company nearly two million so I’d like to see it in use for years to come!”

Tom walked to the equipment shed, keyed in through a pad set behind a small wooden panel, and called for the elevator. For security purposes the car would always be stored at the lowest position and only be sent to ground level when an authorized person requested it.

The doors closed and Tom felt a shudder and a cold spike run down his back. However, sixteen seconds later the car arrived at the bottom and the door opened with nothing occurring in between. He stepped out and the lights came on. He walked through the various doors and under barriers and finally stood at the end of the large central room.

Another shudder ran through him only this time it was because of the incredible appearance of what stood before him.

To the right and left were heavy clear tomasite windows behind which—on the left—were three levels of space. The lowest level was empty, but set behind blast-proof doors. In case of an emergency, it would be easier for occupants to either run into the room or slide down emergency tracks to it than to try for the elevator. The middle level held the nuclear power supply that powered the entire facility. It was shielded in thick tomasite and Durastress triangular panels.

The upper floor was space filled with computers and equipment necessary for the study of the anomaly. Both upper levels could be reached via stairs set next to the elevator doors.

On the other side were three levels of observation space and meeting rooms.

But the most impressive aspect was right in front of the inventor.

Forget that the black walls and subdued lines of lighting reminded people of either the classic movie, *TRON*, or even an electronic circuit board, it was the thirty-foot-tall cylindrical shape of the containment vessel for the time anomaly. The exposed inner mesh of electromagnetic materials surrounded and hid a five-foot wide and thirteen-foot tall open area currently home to the anomaly.

As an indication a great deal of power was contained inside the cylinder, the mesh actually glowed with a dull blue-white light.

A central band of bright white light crossing on front of the tomasite window by a foot was a constant reminder there was a barrier here. One people should not be tempted to cross. In fact, if anyone stepped within five feet of the band it would begin pulsing bright red. At two feet, alarms would sound.

Inside the entire chamber a total vacuum was maintained to give the anomaly the closest thing to deep space conditions as possible.

About the only thing the chamber did not normally simulate were the effects of a bright sun some one hundred million miles in the distance as there had been in the other solar system. That was taken care of by the addition of a small and incredibly powerful light source at the top of the chamber that could simulate the right level and frequencies of light if needed.

Because the artificial sun was so bright it would require that a layer of electrically-agitated opaque particles trapped in between the outer two layers of the tomasite to be turned on causing a total blackout of the chamber inside.

Tom glanced at his watch and was a little surprised to see that nearly an hour had gone by. He turned at the *ding* of the elevator call and watched as the doors in the hallway slid shut. Less than a

minute later the doors opened and seven men and women stepped out.

He greeted them in turn and was told the other eleven people who would be working in the underground building would arrive within five minutes.

“Then, I’ll hold off on the tour,” he told them. Once everyone arrived he made certain they all knew each other—only two had never worked on the same project before—and then started walking them around the entire facility. He was especially attentive to ensuring they all understood that in case of an alarm, absolutely no questions were to be asked. If they were on one of the upper floors they were to jump into—dive into if necessary—an emergency chute. If on the lowest floor they were to turn and run into the closest of the three doors; they would have just three seconds to do so before the doors would close.

“Modesty must be left up at ground level,” he insisted. “Ladies can certainly wear pants but are not required to. If you are in a dress don’t stop to try to bundle it up around you. Jump!” He grinned. “And, don’t be surprised if it is an everyone for themselves situation. Don’t anyone expect head of the line privileges. Not even me or my father!”

Once they assembled in the control room, one of the techs looked at a red, flashing readout. “Tom? Is that trouble?” he asked, pointing.

“That is not trouble, Dale. That is just the reminder light that says we are dealing with something that is barely understood, might not ultimately be containable and that all caution must be exercised. And, now that we are up here I want you to look out and up from the window. See that disk up there?” Everyone said they did. “That is the special emitter I hope to use to feed any signal or power from our anomaly down and onto various objects. I need to find out how everything from bananas to human tissue are affected.”

Tom decided that it would be best to practice everything the team might be doing before attempting to study the anomaly, so for the next three days everyone spent time going through procedures and working a few small bugs out of the systems.

After the weekend, during which a minimal staff of four remained in the building twenty-four hours a day, Tom and the main team arrived at eight and began to get serious about what they had in the containment field downstairs.

Several days were spent just in the study of the power emanations coming from the anomaly. There were minor but noticeable differences when the artificial sun was in operation. Then

again, they were nowhere close to significant enough to make anyone go “oooooo,” or “ahhhhh.”

By the fifth day the team met in the conference room before heading home for the evening. When Tom cleared his throat and asked if they were ready to report, one woman stood up and nodded, saying, “Sure. But to tell you the truth, Tom, there is little to report. That thing is emitting energy of some sort, but none of us can tell if we are getting true readings or if the containment field is interfering.” The others appeared to agree with her.

“Right. I was a little afraid that would be the case. Have any of you taken a look at the data Bud and I brought back of the anomaly as it sat in front of us in space?”

There were a few murmurs and he grinned at them. “I thought not. So, we have the weekend starting tomorrow. The duty watch roster is posted in the elevator shed upstairs,” he pointed upward, “but come Monday I want a full side-by-side comparison of the old and the new. Unless any of you have anything else...” he said more as a question.

The same woman, Shauna, stood back up. “I do have one thing. At first I believed it to be a bit of false sensor info, but now that I think about it, I want to go back next week and run one particular test again. A test of releasing a single water droplet inside the chamber.” She looked uneasy about something.

Now, Tom was curious.

“Can you give us a hint?”

Her face scrunched up as she thought this request over. “I would really rather not. Not, at least, until I get the chance to do it again. It was weird, I can tell you that. No, that’s not right. That was on Thursday. What was weird was in looking back at Wednesday’s data.” She bit her lower lip.

Tom knew that pressing her wouldn’t be the best thing, so he smiled. “Okay. Then on Monday make that your priority while the others start the data checks. Have a good weekend!”

As the others shuffled out the door and across the control room to the stairs, Shauna held back. So did Tom.

“I believe you do want to tell me something, but aren’t certain if I will believe you. Right?” She nodded, sadly. “Well, I won’t press, but I also will promise to take whatever you say as a confidence and not judge either it or you. Not until you get the opportunity to repeat your test.”

She took a juddering breath and let it out as a nervous sigh.

“Sure. The thing is, if I’m even partly correct, I will get nothing by doing the experiment on Monday. Absolutely nothing... like before. Unless, that is, I wait until Tuesday to try the experiment.”

Tom’s eyes narrowed. “Meaning?”

She sighed again. “Meaning that I think I detected a droplet of water in the chamber a full day before I did the experiment with it!” She looked at him, her eyes saying she didn’t want to believe what this might mean.

By silent agreement they headed for the door.

Tom told her, “Go ahead with the observation on Monday and then run the experiment Tuesday.” He stopped and she did as well, facing him. “In fact, observe on the hour from about eleven to four and repeat the experiment at those times the next day. If what you think happened, and what I could easily be convinced happened, then we have our very first piece of significant information about our captured friend.”

They resumed walking and said nothing else all the way to the top of the elevator where he offered her a lift in what was a maintenance pickup, left there in keeping with the disguised shed’s appearance.

When Tom told Bashalli the potential news at the dinner table that evening, she did not put the related information together at first. Then, as she was turning to go to the kitchen to refill their water pitcher, she stopped, spun around sloshing the remaining water onto the table and Tom’s right leg, and her mouth opened in amazement.

“But,” she practically gasped, “that would mean the water traveled back in time!”

He nodded, looking down at his damp trousers. “There are a couple things I never told anyone except for dad about Bud and my adventure back through the wormhole. Get me a towel to wipe up this water and then take a seat. I’ll tell you all about it.”

She quickly returned with a full pitcher and two towels. While Tom tried to dry his pants she mopped up the edge of the table. He dropped his towel to the floor and stood on it to get what had dribbled down onto the carpet, but in two minutes she was sitting next to him, looking expectant.

“As you can guess, this is absolutely top secret, Bash. Not even Sandy. Okay?” She nodded vigorously. “Fine.” He proceeded to tell her about the surprise they both had on seeing the *Galaxy Traveler* coming out from the wormhole a few days after they already had, and in watching that version of ship and crew do exactly what he and Bud had done.

She took in everything he said and only asked a single question when he used a term she had not heard before. In the end, she sat looking at her husband.

“It is a good thing you did not take me along,” she told him. “Even though I would gladly go with you on any of your voyages. But, I would have been frightened out of my wits and probably embarrassed myself. That must have been, umm, startling at the very least.”

He chuckled. “Let’s just say that neither Bud nor I had anything intelligent to say for quite a few minutes. It was the spookiest thing I have ever witnessed. Watching yourself do things you know you have done, and thinking, ‘He’s going to pick up a wrench now,’ then seeing the other you do exactly that is the ultimate in *déjà vu*.”

It was a term he knew he didn’t need to explain to her; she had learned its meaning more than three years ago when he took her to explore an old mine and cave in the hills above Shopton. Although she had never been there before, his childhood recollections and vivid description had placed such a strong mental image in her head that on stepping into the inner chamber she had cried out and flung herself into his arms, sobbing.

Asking her what was the matter, she told him, and he laughed. Then, after she hit him in the chest for being so cruel he explained *déjà vu*. She apologized for her anger and promised to remember what it meant.

“Did they, I mean, did *you*, ummm, see you? No. What I mean is —”

Tom laughed, reached around the table and eased her from her chair and into his lap. “What you mean is did the yesterday us see the today us.” She nodded. “No. And I am certain of that because I looked out the viewscreen right near where we—today’s we—were at some point and didn’t see us. My belief is that since today’s us hadn’t happened to the earlier us yet it would be impossible to detect us.”

She kissed him and stood up. Tapping herself on the chest, she declared, “At some point I shall understand that. I think I do but I think I don’t. Not yet. In the mean time, if you will help me with the dishes and not try to sway my attention elsewhere, I will think very hard about this.”

She smiled sweetly at him and began to pick up some of the serving dishes. Tom stood up behind her, reached gently around her and patted her on her increasingly larger stomach. It was only a matter of five weeks to go before they would be parents.

As she washed and he dried—even though the kitchen was outfitted with a dishwasher Bashalli enjoyed the physical interaction between sponge and soapy plate—she tried to explain what she thought was the truth of the encounter.

“You got that in one try, Bash!” he told her. “Yes, because the yesterday us had not traveled away from that spot and returned a couple days later at the yesterday point in time, there really couldn’t have been a way for them to see us. However, our seeing *them* gives me some proof, even though not totally scientific, that it is possible to see yourself in the past. One more time question answered.”

She sighed and dried her hands. “I am glad I have tied my life to yours, Thomas Swift! Each and every one of my horizons have been far extended beyond anything I might have dreamed about as a young girl. And, with that I must tell you that this mother-to-be is officially exhausted. I am going to take a warm shower and get into bed.”

* * * * *

The phone rang on Tom desk. It was Harlan Ames.

“Skipper? I hope you’re sitting down because I’ve got some disturbing news to tell you. Remember when you ran into someone who was supposed to be that FBI man, Agent Stowe, who was standing in, supposedly, for Abner C. Everton at the Thursby Manor?”

“Sure.”

“Well, I just got a call from the FBI. I had requested to find out as much as possible about what’s been going on with him lately and why he was holding up in the Manor guarding Lindsey Everton. It turns out they have not heard of him since he retired more than three years ago, never assigned anyone to Shopton as a babysitter, or know *anything* about Thursby Manor.”

“It took them nearly five months to get back with that?” Tom asked, incredulously.

“My request went in just last week. I took it as a truth he was here based on your description of his birth mark. But here’s the other pair of bad things. The actual Abner Everton resides in an assisted living facility in the Pacific Northwest and has been there for just about two years. He’s suffering dementia and can’t even button a shirt or tie his own shoes any more. Then, it seems that the actual daughter, Lindsey Everton, was killed in a skiing accident more than a year ago. Whoever the phony FBI man was supposed to be guarding *is an impostor, too!*”

CHAPTER 17 /

AN EXPERIMENT WITH UNEXPECTED RESULTS

“WHO THE HECK can they be, and why were they around here?” Tom asked. “I’m going to assume that you have someone heading to the Manor to check to see if they are still here.”

“I do,” Ames admitted. “I’ll call you back once I hear anything.” He hung up.

Tom pattered around the office for a few minutes both bothered and anxious. There had been nearly as many threats made against his life as the number of major inventions he had created over the years. Some were actual physical attacks; he couldn’t recall each and every time he had been smacked over the head with something only to wake up in some bushes or a shack or even some dingy basement.

But, those had been different, somehow. None of those happened when he was about to become a father. The stakes had become much higher.

And, he realized, there were those out to “get” him who would not hesitate to attack the ones he loved.

He sat back down, feeling miserable. He did not have to feel that way for long. The phone rang.

“Tom. Harlan. Okay, there has been a tangible sighting of this Lindsey Everton stand in, and she has just made a threat against you, so the FBI’s ears have perked up. You’d think after all the attacks on you and your dad they would jump up and race out of the room at the first sign of— no, sorry. Been there and done that. So, the story is they are assigning their local man, Quimby Narz, and three others in his office to this.

Tom felt his mouth go dry. “You said she’s made a threat against me. What was it?”

Harlan was silent for a few seconds. “It was yesterday. I didn’t want to get you bothered until I had looked into things. She was spotted at the front gate driving past in a late model green coupe. As she drove by the gate one way she made a rather obscene gesture to the guard. She then turned around and came zooming back only this time she tossed a rock out the passenger’s window with a note attached. It said, ‘Tom Swift and his precious wife are in for it. L has decreed it!’ I am only guessing here, but that ‘L’ might be Lacrobat!”

Tom felt woozy. *Lacrobat!* That name was driving him crazy. Lacrobat who shoots satellites from the sky. Lacrobat who employs

people to spy on him and possibly do him harm. Now, a threat to Bashalli? *Lacrobot!*

“You still there, Tom?”

“Huh? Oh, yeah. I was just contemplating how badly I hope this Lacrobot gets treated once they catch him. Imagine him threatening Bash!”

“And, you,” his Security man reminded him.

“But, I’m used to it, Harlan,” the inventor protested. “This turning into something that goes after Bash and our baby infuriates me! First it was the kidnapping at the day spa and then someone luring Bud and me to the Thursby Manor presumably to attack us or at least to... heck! I don’t know what!” He was practically shouting.

Harlan tried to smooth Tom’s jangled nerves. “You know, Tom, this all could be an elaborate hoax. Get you all hot and fired up until you just about explode, and then just disappears.” He paused and added, “Not very likely, but it is another scenario to consider.”

Harlan informed him a Security man was already watching their house and would tail Bashalli wherever she went until things were settled.

To take his mind off his feelings of unease, Tom walked out of the building and climbed into the maintenance truck parked in his usual spot. He drove out to the equipment shed, keyed himself in, and took the hidden elevator down into the buried building.

As he entered the control room he glanced at the digital clock on one wall. It showed five minutes before noon. Tom stopped behind the chair occupied by the technician, Shauna. When she sensed him there, she turned around and smiled.

“What have we got?” he asked. “Anything from your eleven o’clock experiment tomorrow?” He wasn’t quite certain if he wanted a positive or a negative answer. Whatever it was, he would deal with it.

Shauna nodded a little. “Yes. As I was observing the place I will inject a water droplet tomorrow, one appeared in the blink of an eye.”

Tom felt a sudden surge of excitement. He also found that his mouth had gone incredibly dry making it difficult to say anything. He swallowed and tried again.

“That’s... that’s incredible!” he got out as a harsh whisper. “So, assuming I didn’t ask you to not do the same thing at noon, we ought to have a repeat performance in, umm, three minutes. If Bud were here he’d say, ‘Jetz!’” He pulled over an unoccupied chair and sat, staring at the monitor showing one small area inside the

containment field.

While the clock silently counted the seconds, Tom found he had tensed up so much his shoulders actually hurt. He tried to roll them and took a deep breath to relax.

“Okay. Here we go,” he said. “Three... two... and...”

Neither of them had been blinking so they both caught the incredible sight of a single drop of water appearing out of thin air. Well, not air as the chamber was in a vacuum. Then, Tom let out a little gurgle of surprise.

Rather than appear to vibrate as the vacuum caused the water to boil at an incredibly low temperature, it simply became indistinct and faded from view.

Three seconds after it began, it was over.

He tried to choose his words carefully. “What did we just witness?”

Shauna let out the breath she had been holding. “That is what I’ve spent the past hour trying to figure out. I intend to go maximum close up on the next one and I have a couple other instruments I want to bring into play. Didn’t do it this time because I wanted you to have an unobstructed view.”

He patted her on the shoulder. “Smart thinking. So, how long to get those in place?”

“Uh, three minutes. Maybe two.”

“Do it. And then I want you to remember to inject another droplet at five minutes past, then at six, seven, eight, nine and ten. If you do that tomorrow we ought to have a series of water drops to study in the next seven minutes.”

Shauna got everything ready eleven seconds before Tom’s first requested drop point.

Right on time, there it was. It did exactly the same thing only it took slightly longer because she had injected a larger drop of water. They watched the next five times before sitting back and beginning to study the computer readouts.

It required half an hour, but Tom came to the conclusion that what they were seeing was a series of vibrations caused by the electromagnetic containment field. Certainly, the water appeared a full twenty-four hours before it was to be injected, but the mystery of its disappearance could be explained.

That still left the phenomena of the apparent time travel.

After requesting that she transfer everything to the company server so he could study it from his desk, he told her, “Go ahead and

keep a watch. Tomorrow I want you to do all these plus the one o'clock and two o'clock drops anyway. Make them triple the size. Oh, and get a moisture reading in there. I want to see if the water vapor needs to be removed. If there is no moisture, then we have another mystery. Call me if anything else odd happens."

By the time he got back to the large office Bud was sitting in the conference area waiting for him.

"Lunch?" he suggested.

Tom realized that he was hungry but was also so excited about the backwards time traveling water drops that he wasn't entirely certain he could eat anything. But, he nodded.

"Good, because I called Chow and asked for a couple of his chicken pot pies and some chocolate pudding," the flyer told him with a grin. "They sounded good to me."

That sounded good to Tom as well. He walked to the side table and poured himself a cup of half coffee and half hot chocolate from the two insulated carafes and came to sit next to his friend.

"Flyboy, have I got some story to tell you. It's more than company confidential at this point so not even Bash or Sandy are to hear. Don't even mention it to dad. I'll tell him."

Bud's eyebrows furrowed and he tilted his head in curiosity. "Well, okay. I can keep a secret, but you're making this one sound really ominous. What gives?"

Before Tom could speak a knock came on the heavy office door and it opened.

"Afternoon, buckaroos!" Chow practically bellowed to them as he wheeled in his lunch cart. "Got 'cha both somethin' Buddy boy asked fer. Hope yer in the mood fer chicken pot pie, Tom." When the inventor smiled and licked his lips, that was all the westerner needed. "Great! Kinda a new recipe, ya un'erstand. Got differnt veggies inside than jest carrots and peas. If ya like 'em, great. If not, I got two o' my reg'lar ones ready ta heat up in that microflash oven thingie Tom rigged up fer me."

The old ranch cook continually marveled at the combination of microwave, high-intensity quartz halogen elements, pressurized steam and an instant-on heating coil that could cook things such as a fifteen-pound turkey to perfection in just twenty minutes. For something as small as an individual pot pie, it would take him just forty-five seconds to bring it to piping hot perfection.

"You know, Chow, old man," Bud said around his first fork full of the filling, "this'll do me just fine. Should I ask about the insides?"

Chow was well known for his outrageous concoctions such as

prairie dog hash and armadillo fritters, often to Bud's consternation. "Shore, Buddy boy. It's, o' course, white n' dark chicken meat, onions, parsnips 'nstead o' taters 'n carrots, then its got rutabaga, Jerusalem artichokes, celery root, 'n finally golden beets."

Tom swallowed his first bite. "Mighty good, Chow. Keep the other pies for some other lunch. These'll do us just fine!"

Chow left to attend to something leaving the young men in peace. After another mouth full of his pot pie, Bud looked at his best friend. "So, spill. What is this great secret?"

Tom told him about the time traveling water droplets.

Bud's mouth was still hanging open when Chow returned five minutes later.

"Ah, shucks! Ya really don't like it, do ya?" he complained.

Tom looked at the older man. "No, Chow. He likes it a lot, it is just that I told him about a secret experiment I am performing and he is so shocked at the preliminary outcome he is both speechless and gape-mouthed. Bud, take a nice bite and show Chow you do like the new vegetables."

Bud came out of a trance and shook his head. "Sorry, old-timer. I really do like this," and he took an extra large fork full, "but the skipper's right. He just told me something that shocked the dickens out of me. Give me a couple minutes and this plate will be empty. I guarantee it." He dug in to show Chow he meant it.

"Wahl... okey-dokey, then. It's just that you sometimes tell me ya like somethin' but ya leave a lot on yer plates. If ya really do like it, tell me and I'll put it in the rotation o' dishes. If ya act'shully don't cotton to it all that much, tell the truth, boys. Betcha dollars ta doughnuts I've heard worse out on the plains o' Texas!" He looked hopefully at the two who nodded and grinned around their final bites.

"It is really tasty, Chow. I say add it to your list," Bud told him.

Once Chow had cleared their dishes and gone back to his kitchen, Tom suggested Bud come with him the following day to witness as much of the experiment as he could.

"I'll even get things set up so you can see something that will have been added the following day so you can see it come out the day before it happened."

Bud scratched his head. "It all sounds interesting and wonderful and all that, but what possible use could you put it to? I mean, add something to the chamber on a Thursday only to have it come out on Wednesday." He paused. "So, what happens to the thing when it gets to be a day later and it meets up with the thing before it travels

back in time?”

Tom shrugged.

“If one time paradox is true, it will cause them both to disappear. If another is correct, the time traveling one will cease to be since it has come back around to its proper place in time.” He frowned. “Of course, another says that if they occupy the same spot they will explode so violently that either they blow apart or a great deal of collateral damage will occur. I’m not certain how we will find that out without the possibility of any or all happening and some damage taking place. In the case of the water drops, I’m certain the containment field broke them up and the vacuum made them evaporate. We’ll need to try something more solid.”

Before leaving the office, Bud promised to be back at 10:45 the following morning.

“Meet you down at the pickup,” he said before heading back to his office in one of the far-off hangars.

The following day when they arrived at the elevator, Tom gave Bud a warning on what they were going to see and also what they might not see.

“This has been going on a few days and Shauna has set things up today to force a grand meeting between a drop from today meeting up with itself having come through yesterday. She’s doing it all inside a sealed tube.”

“But. I thought you said all the drops vibrated and evaporated, or broke up or something.”

Tom smiled as the elevator doors closes and they started down.

“I did, but today’s experiment is going to take place in a ten-second period of time when we shut off the containment field. And, don’t worry. We tried it the other evening and it takes at least fifty seconds for our gravity to affect the anomaly and start to drag it down. This will be over long before that.”

They stepped out in the lower level and headed up the stairs to the control room. As they climbed, Bud requested, “Tell me again why the elevator only goes to the bottom and there are no interim stops.”

“Because,” Tom answered as they reached the door to the control room, “I don’t want the elevator stopping more than necessary in an emergency. Anybody down here will have evacuated to the lowest level and those safe vault-like rooms so I figured the one stop approach would be best. Besides, you’re not going soft on me and find a couple levels of stairs do you in.” He arched an eyebrow.

“Touché, skipper.” They headed across the floor to Shauna’s

station. With word down in the control room having gotten around, just about everyone down there was sanding near to the tech's station.

"Looks like this crowd is expecting a show, skipper," Bud commented as they came over and took seats next to the woman.

"I did as you requested, Tom. That drop we captured yesterday is still in the isolation tube in there. Coming up on three minutes until I actually drop it in today. And, I'll be adding another tomorrow at this time. Are we ready?"

Tom laughed. I think that is something I needed to ask you. Are we?"

She drew in a deep breath. "I think so. At least I have the tube in there with the line running into it. The computer is set to dispense at exactly the hour. So, yes, I am ready."

Bud looked at the monitor, "Umm, hate to tell you this but you already have a tube with a drop of water clinging to the side in there."

"Ah, yes and no. That is the drop of water and the tube Shauna is about to combine right now. Look closely and you will see the today tube coming into the shot."

Everyone did and as they watched a second, identical tube except for having no water droplet inside lined up right next to the first one. They were separated by a fraction of an inch.

"Here goes," Tom said looking at the clock.

Shauna pressed a button and a small drop of water exuded from a thin line and into the clear tube.

There was a general outcry from everyone as they watched when five seconds later the tube that had been in there from its travel back in time began to look wobbly and then it disappeared into nothingness!

"Well?" Tom asked the tech.

"No radiation, no energy released. It just sort of got wiggly and went away." A second later the tube was back.

"What?" Bud exclaimed.

"That's tomorrow's tube, Bud. And for some reason although it is all timed by the computer, the three of them were not in there at the same time. Interesting!"

Over the next week hundreds of experiments were conducted using a variety of materials and with wildly differing results.

In the case of things considerably more dense than the water, or much larger, the time the object seemed to return to the past varied

by as much as fifteen hours.

Tom hit on the idea of turning up the power inside the containment field for an experiment with a block of aluminum.

At the normal level of power, the block went back nearly twenty-two hours. At a lower level, it only managed to go back eleven. And, during the experiment using absolutely zero power within the containment field, it started off dropping straight to the floor before disappearing, and came back out, as they knew from already having witnessed it, eight hours earlier.

Time and again, the denser and/or heavier the object, the more power it required. But, no test ever sent anything back more than twenty-four hours and eleven seconds.

Bud quipped a few days into the experiments, "Guess you've got yourself a shiny new yesterday machine, skipper."

Tom would have groaned as he generally did when the flyer proclaimed something to have a pun or silly name, but this one was spot on.

As long as things remained inside the chamber and inside the containment field when they arrived back at their normal point in time, they simply disappeared.

When he was discussing the results with his father at lunch in their office, Tom said, "I think I would like to use the bypass."

"Well," Damon began slowly, "first remind me what that is, if you have ever discussed it with me to begin with."

Tom thought a moment. "You know, I might have not mentioned it at that. I wasn't certain it would ever be a good thing to use, so I built it into the underground structure but it has remained a closed system. Basically, it is a tube containing additional containment electromagnets, but it curves up and into the ceiling and from there out about fifteen feet to a spot above a pedestal that can be raised from the floor."

"With you so far. But, why?"

"Well, we know the effect of the anomaly travels a considerable distance. From the wormhole exit it was sitting about several million miles away. I figure the power or influence it exudes can travel up and out through a tube and then down onto something on that pedestal which, by the way, will be floating on a thin blanket of air to avoid any friction that might skew the results. We know there is no radiation caused by it so once we close the tube back off the lower floor will be safe to walk through."

"Let's say I believe you and believe in you. So, I think you might do a single, *single*, experiment with whatever object suits you. By

that I mean inanimate object and not my favorite son. Got it?”

Tom grinned. “It never crossed my mind!”

The object Tom selected was the aluminum cube. At three inches on each side it weighed under nine-tenths of a pound and could be sent back ten hours at minimal power.

He headed to the new lab and set things up for a send-off to be held at midnight. As it was going on just one in the afternoon, it would then appear in an hour.

That is exactly what it did. At two p.m. the cube appeared out of nothingness resting near the center of the pedestal. Tom checked the reading in the room and found nothing amiss so he went down and carefully examined the cube. Even using a camera at high magnification there was nothing different about it. He was about to retreat back to the control room when a thought hit him.

He reached back and moved the cube five inches to the right. It was no longer centered on the pedestal.

Going back to the control room he made a note and told Shauna about his little side experiment.

“We’ll place the cube exactly in the center and see what we get.” They both looked over at the aluminum cube sitting on a table to the side. It was the one they would send back to this earlier time.

Thinking about it gave Shauna the shivers.

Lots of what she had been involved in recently gave her shivers. She had never considered time travel to be something that might occur in her lifetime, and now that it apparently was happening, she thought it was more than a little bit spooky.

When he came back to the lab at eleven that night, Tom expected to find only the two-person night crew who would be simply watching a few instruments to make certain things stayed within the range of “normal.” Instead, he had a huge laugh on seeing everyone was still there—some were dozing on sleeping bags that had magically appeared—and even Bud and his own father were sitting with Shauna in deep conversation.

“Son? A question. Possibly a big one,” Damon said rising. “You set the cube to one side, but will that be enough separation when you go down and set it in position now? I think we all know they should never touch. Thoughts?”

Nodding, Tom sat down. “Yes. I’ve thought about that which is why I will be going down in a minute and moving the traveling version of the cube to the far corner. Then, I’ll come back and get this cube and set it in the opposite corner. It’s the best I can do right

now. I'd ask if you thought we should delay, but the fact the cube already appeared earlier says you would tell me to go ahead."

Damon shook his head and chuckled. "Can't fault the logic of that," he stated.

Tom walked out the door and they all heard him going down the two levels of stairs. He appeared in the room below and moved the cube. After coming back up and taking the cube with him, he returned to the lower floor.

Gingerly he moved forward, pausing every few feet until he was standing to the side of the pedestal.

The cube in his hand felt slightly warm but Tom was certain that was from his own body heat.

He squatted down on his heels and reached the cube up to the corner, setting it down and quickly pulling back his hand.

As he stood up the people in the control room looked in horror as the cube already in position began to slowly move toward the other cube. It was as if it knew it had to be in that position when the moment of power was reached.

Bud jumped up and pounded on the window. It got Tom's attention and on seeing his friend frantically pointing at the safe room to the inventor's right, Tom put everything together in his mind and jumped into that space, slamming his fist into the **CLOSE** button. The door dropped and an almost explosive **bang** told him the air seal had been inflated like an automotive airbag.

Tom held his breath waiting for what would come next!

CHAPTER 18 /

TRYING AND TRYING AND TRYING

THE INTERCOM buzzed seconds later. It was his father.

“Son, you can come out. Shauna hit the send button early and the today version disappeared before it could move over and touch the yesterday version. Crisis, for now, averted.”

Tom pressed a hand-sized panel marked **RELEASE** with the palm of his right hand. The seal hissed again as it deflated and in seconds the door rose back into position. He made a mental note to have the explosive pack in the seal replaced immediately.

As he arrived back in the control room he grinned and said, “Thanks, everybody! It all came out fine, but could have been a lot worse. I appreciate what you all did, and especially my dad and Shauna.”

“It was nothing, skipper. Your dad nearly smacked poor Shauna in the back of the head and she just sort of slammed her hand down. It all worked out!” said Bud with a sly look on his face.

“He did not,” objected the woman. “Your father was calm and cool and simply asked me to press the appropriate button with as much haste as possible.”

Damon shook his head. “I yelled out, ‘Dump it!’ and Shauna reacted.” He placed a hand on her shoulder. “Thank you.”

Tom asked to review the video and was unsurprised at seeing the one object move as if by a hidden hand and the other disappear as it was sent back in time. What he did not expect was he would feel that this just wasn’t right.

It hit him. The version of the cube that had already gone back in time was still there! It had not disappeared. And, Shauna had not sent the other back quick enough; the two had touched briefly.

Standing back up he turned to his father. “Dad? It doesn’t add up.” He pointed a thumb over his shoulder in the general direction of the windows. “Follow me on this. If the cube arrived earlier sitting in the middle of the pedestal, which is where it was not when Shauna sent it away, how did it get to the middle? Shouldn’t it have come back in the same position as it left? And, why is it still there?”

The older man was about to answer when Shauna sighed. “That’s my bad!” she declared. When both Swifts looked at her, she added, “The pedestal has both the air blanket coming from underneath, it

also has stronger air jets coming up around the perimeter to keep things from rolling off. I am certain I turned that all on right after you set the cube down a few minutes ago. I think it shoved against the side of both cubes and started them moving over the layer of air jets. I know that doesn't answer the ending position or why it did not go away but it explains the movement of the cube. Sorry."

Tom and Damon patted the woman on her shoulders.

"It's okay, Shauna. That is something I should have taken into consideration. And, you are right. I did put the cube right on the edge. Probably over it to be honest. That just leaves the mystery of the placement when it came back earlier and it not disappearing. I've got to go think about that."

Before leaving he thanked everyone and told them to come in late the following day. As nothing else had arrived earlier he knew they would not be sending objects back first thing in the morning.

When he arrived home Bashalli was sitting in the living room with a blanket wrapped around her. She smiled and got up.

"I am happy that you are home. Did it all go the way you hoped?"

He told her about the slight scare and her right hand flew to her mouth where she bit on her knuckle.

"Don't worry, Bash. Dad and the rest of the people up in the control room had my back. All we ended up with was another mystery on top of the mystery of how this thing we brought back actually does what it does. And *that* we might never figure out!"

She hugged him and offered to make a snack, but he said he was tired and just wanted to go to sleep.

In the morning he woke suddenly at seven-oh-nine and sat up. Getting out of bed as carefully as he could so as not to disturb his wife he left the room and went down the hall to the spare bedroom he used as a home office.

The computer came to life and he keyed into the secured system at Enterprises. He watched and re-watched the video from earlier the previous day when the cube they were sending back in time moved toward the earlier version of itself. As he believed, it did touch the time traveling version for a split second.

His face split into a grin as he watched things in super slow motion and watched as the two cubes got quite close. It was at the precise moment the real time cube reached the point that it was sent back. In may have been earlier than expected by a minute or so, but it was there for all to see. The real time cube touched the traveling one, the real time cube disappeared to go back in time, and the one

already there turned slightly invisible for a millisecond before solidifying. It did not go away.

It remained where Tom had moved it. It should have disappeared. He silently chided himself for not having paid very close attention to that last night.

That mystery was a big one needing to be solved. He typed up a message for Shauna asking her to see if the cube that remained was still there and whether some sort of new paradox had started and multiple versions would keep appearing.

“Do you want some breakfast?” Bashalli’s soft voice came from behind him, startling him.

“Sorry, Bash. I tried to not wake you up when I got out of bed.”

“It wasn’t that, Tom. It was the combination of my needing to go to the bathroom, rather desperately, and the ‘Yes!’ you kind of shouted a minute or two ago.”

Tom said he would get something at work so she could go back to bed. With the pregnancy now eight-and-a-half months along she was only working a few more half days—afternoons—at the advertising agency. And that would stop in another four days. Both mother-to-be and baby had been taking advantage of sleeping in the past few weeks.

He showered and got into some clothes, kissed her goodbye and left the house.

As he walked to his car a small green sedan drove slowly past.

When he saw who it was, and what she did, ice ran down Tom’s back and he found he couldn’t get his breath.

It was the fake Lindsey Everton and she had a wicked smile on his face as she made a pointing gun from her fingers and pulled the imaginary trigger before racing off at high speed.

Tom’s brain raced for what to do. Harlan had a man watching the house and area. What had happened?

He reached up and tapped his TeleVoc pin. It instantly connected him to Enterprises via a powerful transmitter in his car so when he subvocalized, “Security,” it beeped to verify the connection.

“Yes, Tom,” came Phil Radnor’s voice a second later.

Tom told him what had just occurred.

“Give me a sec,” Phil requested. When he came back a minute later his voice had taken on a serious tone. “Tom, I can’t get our man to answer. I’m dispatching both a truck with a half dozen of our people, I’m also sending an ambulance. Just in case...”

The inventor told his Security man he was staying with Bashalli until the others arrived.

“Did you get a license number by any chance?”

Tom’s shoulder’s slumped. “No. I was nearly in a state of shock at seeing her right in front of my house, Phil. But, it was a small European sedan. Green like before. I think one of the French Citroëns.”

“It’s something to go on. I’ve just sent an APB to the Shopton Police and to Captain Rock out at the State Police post. Hopefully she doesn’t have a place to hide. And, before you suggest it, I’ve mentioned the old Thursby Manor to the police as well.”

Tom shivered as he thought of how exposed Bashalli could be. He asked if Phil thought she’d be safer either at Enterprises or up the hill in one of the guarded guest houses.

“Good question. Until we figure this out a bit more do you think she’d mind a temporary relocation?”

“I’ll ask her and you get back to me about your guard.”

When he roused his drowsy wife from her sleep, she listened as he described his encounter. She let out a gasp when he got to the “finger gun” part and gasped again when he said this wasn’t supposed to be possible with the guard down the street.

“So, I want you to pack a suitcase with three days of clothes and bathroom stuff. I want to leave here in less than half an hour and you are going to the houses up the hill. Nobody gets past that Marine detail at the gate.”

It was true. Once a housing development under construction by a foreign industrialist who intended to use it to spy on Enterprises, it had been confiscated by the U.S. Government who then gladly turned over all but one small corner of the development to the Swifts. That part now held a tall control tower with two levels. The top one was the newest Eastern FAA Control facility with up to twenty controllers and the latest in electronics while the lower level served as Enterprises’ long range tower. The tower in the center of the grounds below the hill could only maintain RADAR contact out to about twenty miles to the west, north and east because of all the surrounding terrain. This one had a range of nearly three hundred miles!

The Feds had decreed the tower to be of prime military and national security importance so the front and only gate in the tall surrounding walls was manned 24/7/365 by four or five armed U.S. Marines.

Ten minutes later Bashalli was waiting in their living room going through some deep breathing exercises her pediatrician had given her for any time she felt stressed. As they walked to his car a few minutes later she explained that this was about as stressful as she could imagine.

“But, I am happy to have you take me to the guest houses. We will need to stop and do some shopping, though.”

He shook his head. “Nope! Chow has promised to bring you food during the day and fill the freezer up with frozen dinners for us both. He said microwave them five minutes and eat. With his accent, of course.”

For the first time since he told her what happened outside, she smiled.

An Enterprises Security man knocked on the door to tell them it was okay to leave. “You’ll be bracketed by police cars front and back all the way to the hill, skipper. Have a better day, Mrs. Swift!”

The Marines saluted and one held up a hand requesting Tom stop at the gate.

“Hello Mr. and Mrs. Swift. Nice to see you both. We got the word from Mr. Radnor about the circumstances. I’ve authorized the extra wall runner to be let loose and we’ll make continuous rounds of the perimeter. Hope this blows over for you real quick!” He stepped back, saluted and motioned for the gate to be lifted.

The wall runners were automated surveillance systems that raced around the entire tall wall in a random pattern watching the entire area around the development.

As they drove away, she said, “I know that you and I are only a couple years older than those men, but they all seem so young!”

Tom laughed. “Young and among the best trained in the world, Bash!” Another Security man met them at the assigned house and escorted Bashalli inside.

As Tom was leaving the gate heading for work his TeleVoc beeped. “Phil Radnor,” was announced.

“Yes, Phil. What happened?”

He heard the silent sigh of his Security man. “Jameson Arnold was shot. Someone, guess who, snuck up on his car from the side and put a small caliber bullet through his neck. He’s alive and in surgery at Shopton General and should make it. Lost a lot of blood. Are you heading to work?”

Tom said he was.

“Good. I’ve got a seven-man team at your house, all remaining outside. I’d prefer it if you didn’t go home for a few days. Okay?”

“I didn’t plan on it. Let them know I forgot to lock the front door, so they are welcome to use the kitchen for coffee and such.”

Five minutes later he was back at Enterprises and the underground building housing what Bud had called the Yesterday Machine. Now, everyone called it that.

Four more days of concentrated and overlapping tests went by until something happened that stumped the inventor.

In testing numerous materials, one thing that remained untried was natural rubber. One of the techs had brought in a rubber ball from his young boy’s collection of toys when that same article had been discovered popping into existence on the fourth morning.

It wiggled a little and rolled around slightly in the updraft of the hundreds of tiny air jets. He and Shauna sat watching it for ten minutes until he got a phone call.

“Tom? It’s Chow. Say, I was thinkin’ ‘bout you all down thar in the hole and thought I might bring over some food fer the entire group. Now, I know ya all’s been being fed by that mad Russian in the main chow hall, but I got somethin’ special. Is it okay ta come down? I won’t tell no secrets!”

“Sure, Chow. We’re all about ready for lunch. Any hint what you’re bringing?”

“Wahl, ya know I could surprise ya all, but it’s some home made chicken n’ dumplin’s with roasted bell pepper n’ mozzarella cheese san’wiches. That okay?”

“Perfect. See you soon.”

He told the team what they were in for and everyone looked forward to it.

Nearly twenty minutes later Chow paged Tom on his TeleVoc and asked how to get into “this little teeny shack?” Tom keyed in the open command and the elevator was called for. Knowing it would be a few minutes the inventor turned back to watching some video of an experiment from the previous day.

In it, a very weak radioactive isotope encased in Lucite was sent back using minimal power. It had appeared a few hours earlier. As with most of the more recent experiments, Tom had a time written on the object so they all knew how far back things had come.

He wondered now why nobody thought of this up front!

The isotope had arrived and disappeared on time, but as they overlapped in time, rather than dissolve into nothingness, the Lucite had basically exploded showering the floor with tiny shards while the actual isotope piece remained in place for a few seconds before it disappeared.

He was wondering what to make of this when a light indicated the elevator had arrived at the bottom floor.

“Okay, everyone. I’m going down to help Chow bring up lunch. Stephen? Can you come help me. Please?”

The two men descended the stairs and came into the bottom floor to find the westerner leaning over the pedestal. He straightened on hearing Tom clear his throat.

“Oh, sorry, Tom. I s’pose ya don’t want anyone gettin’ too close, huh?”

“It’s okay, oldtimer, just as long as you didn’t touch anything.”

Chow felt a little uncomfortable because he had just nudged the rubber ball he found on the pedestal to the side a little. If Tom had not been watching, or the other fellow for that matter, he would have tried to put it back. With a mental shrug, and promising himself he would tell his young boss about it after the meal, he turned around and walked back to his heavily laden food cart.

Between the three of them they got it up the stairs and to the control room where everyone’s mouths began to water at the aromas coming from the covered pots.

Chow handed out plates and silverware and personally served each one of them. He was so happy about their positive reactions he forgot to mention the ball to Tom.

As the time grew closer to sent the ball back, Chow cleared the dishes and he and Stephen carried the much lighter cart back down to the elevator.

When Stephen returned Tom was looking at the indicator light for the elevator and the shack’s door. Both showed that the cook had left the building and would be heading back to his small kitchen in the Administration building.

Tom gave a countdown, unnecessary because everything could be handled by the computers, but he did it out of habit. When he got to “zero,” Shauna pushed down on the part of her control screen activating the gate that let the time dimension energies loose.

Everyone watched.

The ball disappeared and then the version they had sent back in time did something only one other of the samples ever had.

It failed to explode.

It did not dissolve.

It didn't seem to change at all. And yet, it was no longer there.

Puzzled, Tom rose to head down the stairs to investigate. Sure enough it was not there but it had not behaved like anything else.

Tom had a very slight notion about this but needed to spend time reviewing things.

When he got the chance he had to smile on seeing how Chow had nudged the ball and it had moved out of position just enough so that when the time-displaced version touched the real time one, they sort of quivered slightly for a minute and then one was sucked into the other making them a single rubber ball. And that ball had disappeared back in time.

It was intriguing and yet disturbing. The solid metal had remained viable yet the pliable rubber balls had apparently combined. In the back of his mind he wanted to do some living tissue tests but knew that would fly in the face of his father's request for him not to do so.

It was a position he hated being in!

* * * * *

Tom invited his parents to dinner at the guest house that evening. With Chow supplying a dinner for four, and offering to not just serve it but to hang around and do the clean up, even Bashalli couldn't say no.

They chatted about the forthcoming birth and Anne expressed her excitement at becoming a grandmother.

"Of course you do realize that I am far too young to be one. This is one of Tom's time traveling stunts. Right?" She said this with a big smile.

"You will be an amazing grandmother, Mother Swift," Bashalli stated uncatagorically.

"And you, my darling daughter-in-law, will make an exemplary mother. But, enough mutual admiration society stuff. I'm sure Tom wanted to talk to his father about something important, so why don't you and I go into the computer room and do some window shopping for baby outfits on the Internet?"

When they had left, Damon turned to Tom. "Did you need to ask or tell me something?"

Tom nodded but was biting his lower lip. He stopped and said, "Yes to both." He described the rubber ball and how with Chow's

unwitting help there had not been a disappearance as much as a melding of the old and new balls. It was when he mentioned that he would like to see how living tissue reacted that his father scowled and shook his head.

“Vegetable matter, fine. Send a potato. Animal or human testing, so *un*-fine that I forbid it right now. My advice to you is to try to recreate that ball result and then wait for the birth of your baby. That is your priority and will be for the rest of your life. Wife, children and self. Business later. Take the greatest of care with them all!”

Tom nodded then looked into his father’s eyes. “And no argument?”

“None, Son. You know that I am right.”

* * * * *

Two days later Tom decided he needed to get away from the time project. He asked Bud to accompany him on a flight and then invited both their wives.

Bashalli was hesitant about the trip; she was a week from her delivery date and wasn’t sure she might not have to get going to a hospital while they were in mid flight. Sandy, on the other hand, jumped at the chance.

And so, reluctantly, did Bashalli.

They climbed into Tom’s personal SE-11 Commuter jet and flew out of Enterprises ten minutes later. By mutual agreement they headed down the Atlantic coast until they were close to Savannah, Georgia, and about even with Fearing Island. At no point, even on the transit over the ocean, would they have ever been more than twelve minutes from medical care.

He called the Fearing tower and told them he was going to circle the island at about two miles out once before coming down.

“Roger, skipper,” the tower operator, Leo, radioed. “Drones will move in and cluster over the island proper and stay out of your way. Let us know when to spread them out again.”

“Will do. Thanks!”

Fifteen minutes later he radioed the tower announcing his intention to land for lunch and was told to wait for an incoming radio call from his father.

“Yes, Dad? What’s up?”

“Son, get back here as soon as you can. There was an attempt to knock another of the new satellites down and your new surveillance

system got a perfect track on the missile. It definitely came from Lacrobat's part of the South China coast. So, along with what you supplied from the attack on *Goliath* as you did that first orbit we have exceptional and conclusive tracking and visual data. I think we have the man dead to rights!"

CHAPTER 19 /

A TERRIBLE THING

THEY LANDED back at Enterprises and taxied as close to the Administration building as possible where Tom climbed out and Bud offered to get the ladies home and the jet put away. He raced up the side stairs and down the corridor to the shared office.

“What is going on?” Tom said breathlessly as he charged into the office.

Damon pointed to the conference area and began crossing the room himself. “Sit, take a breath or two, and I’ll tell you what we know.” Tom sat and closed his eyes and tried to slow his heart which was pounding. “Better?” Tom nodded. “Fine. So, Harlan got a call from a gentleman living in Guam who is the Chief of Security for their government. They’d detected a grouping of three missiles streaking easterly gaining altitude as they traveled. A bit of backtracking said they must have originated in Southern China and somewhere near the ocean.”

“*Lacrobot!*” Tom practically spit out, his anger rising.

“Yes, or that one source made it look like the Lacrobot is responsible. When I called Communications and had them tap into the new satellites, and then to the snooper satellite you put up there to watch over things, we got corroborating evidence. There were actually only a pair of missiles coming up and they definitely came from the peninsula where Beihai, one of Lacrobot’s cities, is located. In fact, they came up from a small spaceport sitting on a ten acre landfill jutting into the Gulf of Tonkin right at the end of their airport’s main runway. The CIA was most helpful as they had just completed a recon satellite pass over that area the morning before. Missiles on pads then and not when we looked with our equipment.”

“What can anyone do?” Tom needed to know.

“For now, it is diplomatic hands. China is facing a crisis of reliability in the eyes of the world. If they are reminded that allowing this to happen from their own soil is another blot on their record, they may be convinced to step in and shut this man down.”

They both knew that China’s ruling government was brutal when it came to enforcing laws they had been caught ignoring or actively allowing to be circumvented. It would certainly mean the end to this Lacrobot character.

“Harlan is passing along the videos from all sources, the

Guamanian RADAR data and everything else we have to the State Department. Pete Quintana is going to ensure that our Madam Secretary understands the dire consequences of not following up on this as strongly as possible. He will be very convincing.”

With it approaching time to leave work, Tom asked if there was anything else to talk about.

“Only if your Yesterday Machine has yielded any new results.”

“Nothing new, Dad. Just that I had the team repeat the moving ball experiment and do the same thing with a few other vegetable items at fifteen minute intervals.”

“Same results?”

“Yes. In every case and at the various power settings dictated by the material, when we physically moved the returning item just so that it would touch the in-time one, they combined into just one and all of them were exactly the same as the original.”

“Wonderful. And, do you think there will ever be a place for this thing? Can it be harnessed to positive benefit?”

“Honestly, I can’t tell you. We can’t get anything to go back any farther than a few seconds more than twenty-four hours, so Bud’s name of Yesterday Machine is very fitting, and even experiments in reversing polarity of the containment field gives nothing that moves forward in time. I’m pretty certain it generates a time dilation that only works in reverse and therefore, and unless we can send people who have, let’s say, been killed with a note to ourselves that when they come out we need to keep them from going to where they were injured—” He sighed.

Damon believed he understood. “Time paradoxes all over the place? If that person wasn’t there to be shot because we kept them from going there, would they ever get shot in the first place? Would we ever get them into the machine and send them back and then keep them from getting shot, so they went wherever and got shot anyway?”

“Or, like Bud suggested—jokingly I’m sure of—we keep reading the news and find a stock that goes sky-high overnight, go back and buy up tons of shares and reap the profits. The thing I reminded him of, is that the act of one person or company buying up large block of a single stock is either going to make the jump not happen or even send the Securities and Exchange Commission on a witch hunt to see if we benefitted from insider trading. But, if we go back and stop ourselves from doing that, will we ever have done it in the first place? So, I suppose the ultimate answer is that no, there is no real use other than to study and maybe find answers to a few

paradoxes.” He shrugged.

“Good luck with that. How long before you return it to its rightful location,” Damon asked.

Tom scratched his jaw a moment before answering with, “I’d like to hold onto it for another month before taking it back. Or even sending it back in an unmanned rocket that will pop it out at the correct spot. That wormhole travel hurts like the very devil and knocks you out. I do not relish another two trips through that.” He was about to leave when a thought hit him.

“Do we know any more about the phony French scientist we took out there?”

“Only that he had a heart attack several weeks ago and still is in critical condition. He had a pacemaker—and I believe Doc Simpson found the thing during his physical—that malfunctioned. Everyone is certain it had nothing to do with the trip you took with him and the others into the wormhole. It was likely from a known manufacturing defect that the French government forced a recall on, but with him being in China with Lacrobat, he never did have it replaced. Greed and stupidity are what could ultimately lead to his death.”

“I wish they’d been able to get some information from him before he had the attack. Anything to help shut this Lacrobat person down. It’s getting to Bash really bad right now, and she doesn’t need this stress when she is this close to having the baby!”

Damon laid a fatherly hand on Tom’s shoulder and gave it a little squeeze. “Don’t worry. Pete Quintana tells me the Chinese government is pretty embarrassed about him and are promising to have him in custody within a few days. And, your wife is a very strong young woman. With you to assure her as often as you can, she and the baby will be just fine.”

The younger man went back to his desk where he spent most of the next hour studying the various results for the Yesterday Machine—it had become the official name now used on all reports for the entire installation.

A small piece of good news came through late that afternoon and just as Tom was getting ready to go be with his wife.

“Tom. It’s Harlan. Okay. Sit down and listen. The man who was that phony scientist on your trip out to the wormhole is dead.”

Tom interrupted to say his father had broken that news of the heart attack.

“I see. Well, his heart failed completely about an hour ago. One

piece of info your dad did not have is that the man who posed as the FBI agent at Thursby Manor when you and Bud *foolishly* went there without so much as letting me know about it... well, that man appears to have been captured in Canada. Vancouver, B.C. to be more precise. Using a fake passport he was trying to get a flight to Japan and from there Hong Kong and we presume back to Lacrobat's area."

"But," Tom said hesitating slightly, "they do have him in custody?"

"They do. It would appear that we have two down and two to go, but I'm confident that Lacrobat himself will be stopped. This comes from a highly placed source and can't be bandied around, but the head of the Chinese Secret Police has vowed to put an end to him one way or the other. Don't ask. They do not have a history of polite knocking on doors and inviting criminals to accompany them 'down to the station to assist with our inquiries.' I've been promised updates every six hours and may have more by eight tonight."

"What about your man? The one who was shot protecting Bash?"

"Pulling through. Your timing and Phil's actions got him to Shopton General in time. He is pretty groggy but sends his best to you."

Tom asked that the Security chief call him with any other news.

Word came through just after three in the morning that Lacrobat's stronghold had been found and attacked by more than two hundred crack Chinese troops. They met little resistance from the mostly elderly French guard. The Frenchman Lacrobat had attempted to flee in a helicopter that had been hit by gunfire and disabled before it could gain more than about twenty feet of altitude, been captured—alive, although reportedly bloodied and battered from the crash—and was under military arrest.

His fate would now be in the hands of diplomats from several nations each claiming to be the "injured party" from the man's various attacks.

Tom got back into bed and felt Bashalli's warm hand slide down from his shoulder to the small of his back.

"Was that a good news call?" she asked in a whisper.

"It was a *very good* piece of news." He told her about the capture of Lacrobat.

Beside him, the beautiful, very pregnant and very tired woman sighed. "That is very nice. I love y—" and she let out a small snore.

With a huge weight lifted from his shoulders, Tom climbed under the covers and fell into a deep sleep.

The next day Tom visited the underground facility and asked the Yesterday Machine team for as much of an update as they might give him.

Several things came from this.

For one, it wasn't a universal truth, but completely inanimate single element materials reacted differently than anything that was living—cabbages and potatoes were now being used—or that had come from a living source, such as the rubber ball.

Still, a combination of timing and placement seemed to also matter in the end results.

He told them to continue on for another day and then to set the facility into a sort of hibernation mode.

“It will be constantly monitored by the computers and should all just sit here for a couple weeks. After that, and unless we can come up with something else to do with our visitor, I may need to devise a way to send it back. I only hope it won't mind having been here for so long.”

Of course he knew the anomaly was an inanimate object, or hoped it was only that, and would therefore not have any conception of such human things as “minding” or “caring.”

Most of them agreed that other than the five experiments that had come into being today, they would be able to shut most things down on schedule.

He went back to the small office and lab he kept next to the underground hangar of the *Sky Queen* and sat down. With Bashall now a few days from giving birth his mind was constantly thinking of her to the detriment of any other work. It occurred to him that he must owe several male employees an apology for having minimized their own emotional situations when their spouses were this close to giving birth.

He tapped the keyboard and brought up his personal log. After sitting for five minutes, he reached out and typed in:

I am finding that the level of distraction is growing almost exponentially as the days grow fewer before Bash and I have a son or a daughter. Now, I sort of wish we had decided to find out what the baby is going to be. Maybe knowing that would make this easier.

Even so, I am going to be a father!

How is that even possible? It puts everything in perspective. Sure, I've been to the Moon, to Mars and even out as far as our gas giant planets. I've tunneled under the ground, swum across the Atlantic Ocean in a thin plastic suit and even drilled into the molten core of this planet. Yet none of that is as satisfying as how I feel when I look at my beautiful wife and know we are about to be parents.

Wow!

He pushed the **SAVE** button and sat back, his fingertips steepled together in front of his mouth.

He wondered if he or Bashalli would be the first to bring up the discussion of him taking on fewer potentially hazardous projects in the future. He decided to let it be something for her to mention.

He made a quick call to Munford Trent telling the man he was going up the hill and would be in late the next day.

"Unless something happens that Dad isn't around to handle, I'd appreciate no contact."

"Absolutely, Tom. Tell your wonderful wife that I have a baby present for her as soon as she comes home from the hospital."

"I'll do that. Thanks, Trent."

Tom reached out and turned off his monitor, stood up, and headed for the door. He wasn't certain why, but everything felt as if it was going to be the final time he did this. He even stopped for five minutes with his right hand touching the underside of the Flying Lab's nose.

He tried to shake off the feeling. *Obviously*, he thought, *it has to do with the baby. As soon as he or she is home, I'll be back and feel better.*

The walk to his car seemed strange to him even though he had performed the same walk hundreds or even more than a thousand times before.

As he pulled out of his parking space and left by the main gate, he told the guard, "Goodbye, Davey," rather than his usual "Goodnight."

By the time his car drove up the hill and he checked in at the gate, he was feeling better. Even more so when he walked in the door and found her waiting for him, feet propped up on the coffee table, with a huge smile on her face.

“Hey, Bash,” he said crossing to her and sitting down.

“Hey, back at you, Tom. Give me the biggest kiss you can possibly give me without shaking me around too much. Mr. bladder is kind of full right now. I’ve missed you!”

He did kiss her and she kissed back.

When he sat back to look at her he could see her face beaming at him.

“Okay. Why the big toothy smile and the sparkly eyes, Bash?”

“It is because I had a visit from Doc Simpson today and he tells me that I probably have another two full days before I will start labor. He said there is a new blood test to determine the time all the hormones get ready to rise and when he gave it to me, it came back with the news.”

“That’s great. So, not tomorrow?” he asked actually hoping that it would be sooner than later.

“It says my labor is still at least forty-eight hours away, but better than that, it tells him that everything from a chemical balance standpoint inside me is perfect!” She squealed with delight and gave him another big kiss.

After helping her get up to go to the bathroom, Tom went to the kitchen to prepare their dinner. It was another of Chow’s ready made meals and one of Bashalli’s current favorite. Such things as most roasted meat or anything deep fried now smelled terrible to her so he was making meals that featured specialty grains and vegetables. Soon, the aroma of melting butter and steamed broccoli wafted from the kitchen into the living room.

Bashalli’s mouth began to water so she pushed herself up from the sofa and met Tom at the dinner table a minute later.

They talked about the end to the Yesterday Machine experiments and how some new knowledge had been gleaned and a lot of new questions had come up. She could tell he was both relieved and bothered by this, but when she inquired, he smiled.

“It’s all the baby stuff, Bash. I can’t keep my mind on work, because it’s all about you and the baby.”

She giggled. “Can’t bring yourself to call it by either name we picked out?”

He shook his head. “No. I don’t want to seem to give any favor to either one. I still haven’t told mom or dad and I hope you’ve kept quiet as far as Sandy’s concerned.”

“Cross my heart,” she told him doing that with her right index

finger.

“And, you don’t want to change your mind?” she asked.

“Nope. And, I really appreciate you allowing the first name to come from my family side and the middle one from yours. You know I’d have given in if you wanted it the other way. Right?”

“I know, but I want our baby to be one hundred percent American even with the Pakistani heritage. So, Barton Safar Swift if it’s a boy and Mary Farah Swift if it is a girl. Several generations of grandparents would be happy.”

“I hope so. I know I sure am. So, if you have a couple days to go, would you like to spend a little time having lunch someplace else rather than cooped up here tomorrow?”

She looked warily at him. “Is it safe?”

He told her of the capture of Lacrobat and the demise of two of the others.

“Then, I accept. It will be nice to go downtown to maybe my brother’s bakery and coffee shop and have a pastry. So, it is a date!”

The next morning Tom arrived at work with a renewed spirit. Everybody noticed it and commented either directly to him or to each other about the change over his attitude and even the way he had been carrying himself the past week.

He breezed past Trent saying good morning in a cheerful voice and went over to his father’s desk.

“I’ve decided to continue the experiments starting two weeks after Bash has the baby. In the mean time I intend to take that time off and lavish her and the baby with love.”

He told Damon about the test Doc had performed and about the very positive results.

“I guess I hadn’t realized how much stress I was feeling worrying about whether things would go okay.”

“Goes with the territory, Tom. Welcome to the next phase of your life.”

Tom waved to the beautiful woman carefully climbing out of her sports convertible. It was quite a sight as she was nearly too big to fit into the small car, but she insisted it was easier for her to drive than their larger sedan. Bashalli waved back, a huge smile on her face. She shut the door behind her and started across the street.

He was standing near the front door of her bother’s little cafe,

The Glass Cat waiting for her to arrive. He had parked a block down and just got to the door as she was pulling into her parking space.

Tom smiled at his wife and her face split into an even bigger smile as she stepped into the road.

With a roar and the squealing of tires and no indication of brakes reaching his ears, Tom's face went icy, his adrenaline pumped straight into his brain and everything went into slow motion as the source of the noises, a green foreign sedan careened around the corner and hit Bashalli in her left side.

She never saw it coming.

Her body flew through the air more that thirty feet before hitting the ground.

The car briefly stopped, a woman with a familiar face got out and looked at the dead body, but quickly got back in and raced away at high speed.

Even before he reached her he knew it was too late.

Bashalli Prandit Swift, his wife and mother of their never-to-be child had just been killed by the woman posing as Lindsey Everton.

CHAPTER 20 /

TRUSTED TO THE HANDS OF FATE

TOM WAS inconsolable from that moment until the sedatives that Doc Simpson had ordered him to consume took effect. He had been taken straight home and put to bed.

Even with the drugs he tossed and turned for nearly six hours before he got out of bed. With a huge sob he turned hoping against hope it had been some terrible dream and he would see the sleeping form of his young wife still in the bed.

She wasn't there and he knew she would never be with him again.

Tom Swift sat on the side of the bed and cried. He howled at the injustice of it all. He hurt like he had never hurt before, even immediately after the accident. He had been too stunned then.

From downstairs he heard the sounds of footsteps. Somebody was coming up the stairs. Again, in a desperate flush of hope he wanted it to be Bashalli.

Bud knocked gently on the door before entering. Without a word he came over to sit next to his best friend. He draped his right arm over Tom's shoulders and gave him a gentle squeeze. Together, inventor and flyer, friends for more than eight years and brothers-in-law for two of those, sat, silent.

Ten minutes later Tom patted Bud's forearm and stood up.

"I'm going to get showered," he announced, tears still streaming down his cheeks.

"Sun's not up yet, but do you want breakfast?"

"Later. I can't... not right now. I need to get to the lab. Give me ten minutes then drive me to Enterprises, please." He stepped into the bathroom, took off his rumpled clothes from the day before noting the bloodstains on both the shirt and pants. For a moment he wanted to throw them into the hamper. Even throw them out the window. It was Bash's blood. It was too painful to look at.

But, he carefully folded them and set them on a shelf. He wasn't certain why, but he felt that he needed to keep them just as they were.

He might keep her memory alive longer that way.

He couldn't tell anyone, not even Bud, but he just knew he had to get back to the underground facility and use the Yesterday Machine

to try to fix all of what happened. He silently cursed the fact he couldn't go back a month or more and do away with the woman before she could become a nuisance and then a murderer.

The thing about being such close friends is that Bud knew what Tom was considering. It was plain for him to see.

"You can't use that machine on yourself, skipper. No way. Your dad forbid it and I'll stop you. It's bad enough with what happened. No use losing you inside something nobody really understands."

"I have nothing to live for without her, Bud," Tom called from the bathroom. "It might be a one-way trip but if I can stop that maniac woman, even delay her for half a minute, then Bash will live, she'll have lunch with me and we will live happily ever after! Even if I am no longer there for her, she and the baby will live. I've got to." He looked into the flyer's eyes.

Bud's only thought was to get Tom to the underground building and then find some way to keep him from making what might be the final mistake of his life.

They arrived just before five in the morning. With the building having been put into hibernation mode, nobody else was there. Tom looked at the clock on the wall of the control room and then set a timer on his smart watch. He needed to arrive at least thirty minutes before the accident, but unless he could devise a way how to remain there for that time and not disappear it would all be for naught.

With what assistance Bud could provide, Tom reviewed nine of the experiments that interested him the most. He watched and then re-watched them time after time. By the time he finished running computations of the power needed to send himself back, the clock and his watch told him he had about fifty-three minutes before he had to go.

His plan was to take an e-gun back with him, use it to disable the woman before she could do any harm, and then take his chances with what time he had left.

Tom knew the fake Lindsey would never listen to reason. She was insane and even with the capture of Lacrobat probably was now out to revenge that even more than her previous assignment to pester and threaten Tom.

"What are these?" Bud asked from the left. He was sitting at one of the monitoring stations and had been leaning back taking a cat nap when something caught his eye.

"Huh? What is what?" Tom asked not looking.

“These envelopes.”

Now, Tom looked over to his friend. Bud was holding a pair of envelopes in his right hand, waving them around.

“I’ve got no idea. What do they say on the front?”

Bud looked. “Ohhhhh,” he said slowly. “Uh, first one has your dad’s name on it and the other one is addressed to me. In your handwriting. I’m not liking this, Tom. Is this something you planned earlier?”

Now the inventor shook his head. It was absolutely a mystery to him, but as he thought about it, a very small smile made the corner of his mouth twitch.

“So, do I open mine now?”

Tom sighed. “You’re obviously going to read that at some point, so go ahead. Only one thing. Promise me that no matter what is in there you won’t try to stop me from doing this. And don’t go all ‘Who? Me?’ on me. You know what I intend to do and I know you want to stop me. Our friendship might be riding on this. But, go ahead and read.”

Bud slowly tore open one end of the envelope. Inside he found a one page letter in the inventor’s hand.

Okay, Bud. You're obviously going to read this at some point so I will leave it up to you to figure whether Dad ever hears about this. If yes, give him the other letter. If no I suggest the shredder.

We have been like brothers since we were both sixteen and you have been the best thing to happen in my life other than Bash. In a few minutes I am going downstairs and you are going to press a special button for me. If you do, I stand a 50/50 chance of two things happening.

1 - I save Bash and the baby

2 - I come back and give you a hug of thanks

Pressing the button gives me those odds. Not pressing it is a death sentence for the woman I love. If my sister were here she'd tell you to press the button. If my dad were here he'd forbid you

from doing that.

As it stands, I believe I can and have covered any chance of him finding out you pressed the button and that I set things up on automatic. If it helps—and I know you will not take this opportunity—I can hit you really hard and you can pretend to have been knocked out.

Your choice.

I love you, Bud. It's just that I love Bash even more.

Tom

Bud's hands dropped to his sides and tears began running down his cheeks.

In a shaking voice he told Tom, "If I do press the button and you never make it, even if Bash does, I will never forgive myself. I may never forgive you for putting me in this position. It would have been so much simpler if I had offered to go get you a coffee and put more of Doc's sleepy pills in it so you'd be asleep right now."

"I do know that, Bud. I really do. I would never ask this of you if it were not the only thing that will keep me from hating myself for the rest of my life. I would not hate you because I know you did or didn't do it out of love and friendship. I just hope you can see how it would tear me apart."

Bud walked into the large office and over to Damon's desk. He handed him the second letter.

The older inventor took it from him silently and with a curious look on his face. As he read the letter inside, his face turned to sadness.

Dad,

If you are reading this and I am not there, then I will not be coming back. Please do not be angry, but I had to use the Yesterday Machine to save

Bashalli's life and the baby.

You see, if I succeeded in what I needed to do, you won't know that they died yesterday when a woman driving a car swerved right into Bash throwing her thirty feet and killing both her and our child.

I really hope what I am about to do fixed that.

We both know that the things we have sent back in time have dissolved once they get back to the real time they should occupy. I don't have time to explain it, but I think there is a way around that. I hope there is, because I so desperately want to see my son or daughter be born and grow up.

If I do not have this right, explain to her what I had to do. I guess this is what true love is all about. Tell her I love her more than anything, please. I can't get up the nerve to write anything to her.

Tom

Damon Swift reread the letter and then folded in up, put it in his jacket pocket, lay his head on the desk and cried for the loss of his son.

Tom breezed into the shared office late the next morning but stopped when his father and Bud nearly fainted on seeing him.

"B-b-but—" was all his best friend could manage to squeeze out.

"Tom? I'm not given to swearing but what the hell is going on?"

The inventor grinned and came over to sit with them.

"Well, it is like this. I'm not sure where to start this, but I guess a little background first. I haven't mentioned it very much before, but there has been a big difference between living things going back in time and things like the aluminum block. I still can't explain the Lucite cube exploding, but when things like the rubber balls touched, the one sent backwards did not dissolve and cease to exist.

It sort of got sucked into the real time version and they just become one.”

“You did mention it once but I thought you never decided why that happened.”

Tom shrugged. “I didn’t totally figure it out but something that happened just before I headed back in time gave me a lot of hope this would work.” He told them about the pair of envelopes.

“See, I never wrote those letters before I left. I did that tonight when I go back into the Yesterday Machine building. At least, that was what I believed happened since the only way for them to exist would be for me to plant them myself.”

“How did you manage that magic trick?” Bud asked.

“When you were dozing I slipped downstairs, retrieved the envelopes I saw appear on the monitor and left them next to your right hand.”

Damon was shaking his head. “And from that you figured you were going to be successful?” In spite of the situation Damon was smiling at his son.

Tom nodded and smiled back at his father. “That’s what I figured. I sort of put the rubber ball and cabbage thing out of my mind and nearly forgot about them entirely with the accident—” He found he was choking up at the thought of having lost his wife and child, even though he regained them.

Bud ventured, “So, if you sent yourself back in time ended up remaining in exactly the same spot, how did you get out of Enterprises without being seen?”

“The building had already been put into standby mode so nobody was here that morning. I slipped upstairs where a Maintenance truck was parked. All part of the camouflage you see. I drove it to the main gate and headed downtown. Davey the guard hadn’t been told about anything and the accident hadn’t happened so he figured I was just off on an errand. When I got downtown I parked in a spot I knew the *then* time me would not be and sort of snuck up on myself. I believed that if I kept the two identical Toms apart by enough we would not interact and time would not try to heal the disparity.”

“Wait, son. Are you about to tell us that having two of the identical object not trying to occupy the same spot didn’t cause an explosion?”

Tom shook his head. “No. We did not explode. Neither did one of us dissolve. I think it is because we were not negative and positive

versions; we are the same thing. Like Bud and me seeing the other *Galactic Traveler*. In my experiments on living tissue if the two objects were in the same spot, the one not in its proper timeline dissolved. If they simply touched one was consumed by the other and only one remained. That is what happened when I turned around there was just one ball on the table. I looked, but the other had disappeared.”

Bud and Mr. Swift looked expectantly for Tom to finish.

“They became just the single ball. No flash, no release of energy. The one absorbed the other. The issue is I'm not sure which one absorbed which. That is what I counted on when I went back to save Bash. That whatever happened, one of us would still be there.”

His father rose and began pacing. “But, how in the world could you have known what would happen to you? Do you realize how furious I have been over what seemed to be one of the most bone-headed decisions you've ever made?” He stopped pacing and lowered both his head and his voice. “I thought I'd lost you, Tom. I've never felt that bad ever before.”

Tom also stood and faced his father.

“Dad, I understand. It's how I felt on losing Bash. And I would never have made that decision except to save her and the baby. I also think you would have done the same thing in my position had it been mom and maybe either me or Sandy.”

Damon Swift spun to face his son. His face contorted into a frown and then relief so powerful that he let out a sob.

He cleared his throat and took out a handkerchief to blow his nose into, and then took his seat again.

“I would like to think I have outgrown that impetuosity, Son, but you are absolutely right.” His shoulders sagged. “Back when your mother was pregnant I would have jumped first and figured out where I was going to land after that. So, tell us what happened. When you got downtown, I mean.”

Tom began the tale starting from the moment he had witnessed the crash and death of his wife and their unborn baby. The overwhelming emotion of the moment paralyzed him but he did have a moment when he actually saw who it was in the speeding car.

It had been the woman posing as Lesley Everton!

She had stopped, gotten out to check on Bashalli and then returned to her car and sped off with a satisfied smile on her face.

An hour later after the ambulance had removed her body, Tom went home and cried over their deaths for hours. By ten that night

he could cry no more. He felt nothing other than determination. When the sedatives hadn't worked he got up with a new determination inside him. And that, he explained, sent him back to Enterprises.

"I took several of those stay-awake pills Doc gave me a few months ago to counteract the sedatives and worked through the rest of the night. I knew I had to make absolutely certain of my settings if I was going to go back and stop that accident. But I had a little bit of information on my side nobody knew about.

"As I stood in that alley in total shock over what had just happened I heard a cough behind me. When I turned around I saw... me! He, or I, nodded to me and came over whispering something about 'come together with yourself tomorrow when you come back as me.'"

"What the heck does that even mean?" Bud asked.

"I didn't know then but it finally got through to me. I thought it was a psychotic episode because of the accident. The two balls becoming one? If that worked and there was still a ball at the end of it all, why not me? Time paradoxes are just that and until this experiment, this exact thing was a paradox nobody could answer because it had never occurred."

Tom had spent the rest of the time with Bud in the Yesterday Machine control room watching the experiments where there was the coming together of objects, making settings, checking them, recomputing things and making corrections to his calculations.

As eleven o'clock the next morning approached he'd realized it was going to have to be in the next fifteen minutes or not at all.

"You sort of forced me to just go ahead, flyboy. If I hadn't pushed the timer and stepped into the time field when I did you probably would have tried to stop me, and might have succeeded. I had to do it then and there!"

Bud nodded. He was grateful Tom was keeping up the lie to save his reputation with Mr. Swift. "I still don't understand it, but I can see and touch you and we know that Bash survived that near-miss with that woman. So, how did you do it?"

Tom grinned.

"When I appeared in that alley I saw myself standing there just watching my beautiful wife coming to have lunch with me. I coughed lightly from ten feet away so no flesh contact would be made. With just five minutes to go I explained what was happening, *had happened*, or would happen, and told myself to run around the back of the alley and around the corner where I was to stop the

impostor Lesley Everton. I set an e-gun on the ground for me to use.

“He, I, ran off and came back three minutes later. He told me he had pulled out my pocket knife, picked up an old half brick in the alley and had confronted Lesley. She panicked and started the car, but he stabbed into her left front tire and smashed the brick into the windshield.”

“And that was enough to make her miss Bashalli by inches and slam into that truck,” Damon finished the tale.

Tom nodded. “Except... No. The car came on just like before. He had to use the e-gun on her as she turned the corner. On stun, but that was enough to cause the accident. I was about to run out to Bash when he stopped me. ‘What do we do about you?’ he asked knowing about the experiments I had performed. Then, it hit me. The rubber balls. And, he had just grabbed me and his hand touched the skin of my arm. I didn’t even have time to tell him because I felt strange, almost as if I was slipping away. That me might already know about it. I had to take the chance. I grabbed onto him, there was a little vibration like a single shockwave and then... there was just me.”

He looked at them.

“I honestly don’t know if I absorbed him or he absorbed me, but the upshot is that I was able to run across the street and help Bash get up, dusted off, and to the hospital to get checked out.”

Bud shook his head. “But, you died, Tom. You disappeared into that time machine and never came back out! Not here and not even downtown. How can you be here now and nowhere yesterday?”

Now, Tom was confused. “What do you mean? I was there helping Bash and—” he trailed off. “No, I wasn’t, was I? I was there but not there. Ohhhh. Didn’t anyone see me?” He got two shaking heads in response. “Somebody pinch me and make certain I am not dreaming this and am actually dead.”

Bud reached out and punched his friend in the shoulder. Tom flinched.

“Felt solid to me, skipper. You?”

The inventor rubbed the spot where fist collided with flesh. “Yeah. All too solid. So I guess that explains why I got sort of lost and disoriented during the last couple hours. It wasn’t until about —”

Mr. Swift looked at Tom. “What, Son?”

Giving them a shake of his head he looked at his watch. “It wasn’t until about eleven-fifteen this morning that I came out of some sort

of haze. I thought I had just woken up after that all-nighter.”

“Tom,” Bud said, “That was exactly twenty-four hours *after* you disappeared in the machine.”

They sat looking at each other for another four minutes, each trying to put things together in their own heads. None of it made sense, but in Tom's life stranger things had happened.

“If you promise no more personal experiments I suggest you reopen that Yesterday Machine of yours and do a lot more research,” Damon told his son. “But for now, you need to let Doc give you the once over.”

Tom didn't argue and let them take him to the Dispensary for a complete checkup, telling Doc Simpson that Tom had suffered a delayed emotional shock from almost losing Bashalli.

Doc gave him a clean bill of health and suggested that he might want to rush to the Shopton Hospital.

“As I understand it, skipper, Bashalli did get a small concussion from her tumble but she is awake now and has been asking for you. If you hurry you might even get there before labor starts.”

Tom looked at Doc, at Bud and finally at his father.

Mr. Swift made a shooing motion. “Get a move on, Tom. There is nothing worse than missing the birth of your own child!”

With Bud close on his heels, Tom ran from the room.

