

TOM SWIFT  
And The  
Venusian *InvulnoSuit*

BY  
Victor Appleton II

A special acknowledgement to the television show, *JEOPARDY!* and the folks who research and write the answers. During a recent Teen Tournament they used one of my novels in a category about "SPEED READING". I guess you haven't made it until you become a *JEOPARDY!* clue.



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The cover's main image is a NASA/JPL photo of the surface of Venus from the Magellan spacecraft. And, the JEOPARDY! Clue screen is likely copyright of the folks who own that program.

# Tom Swift and the *Venusian InvulnoSuit*

By Victor Appleton II

After putting his skills and intelligence to work on the recent Martian moon problem, Tom now takes on one of the most dangerous adventures of his life. And, it nearly ruins his marriage!

An American probe has landed on Venus with an experimental package that is so valuable, even the U.S. Government will not release how much it costs. When it is discovered to have toppled over in one of the planet's violent storms, the political cry goes out to halt all further space exploration spending. Enough is enough!

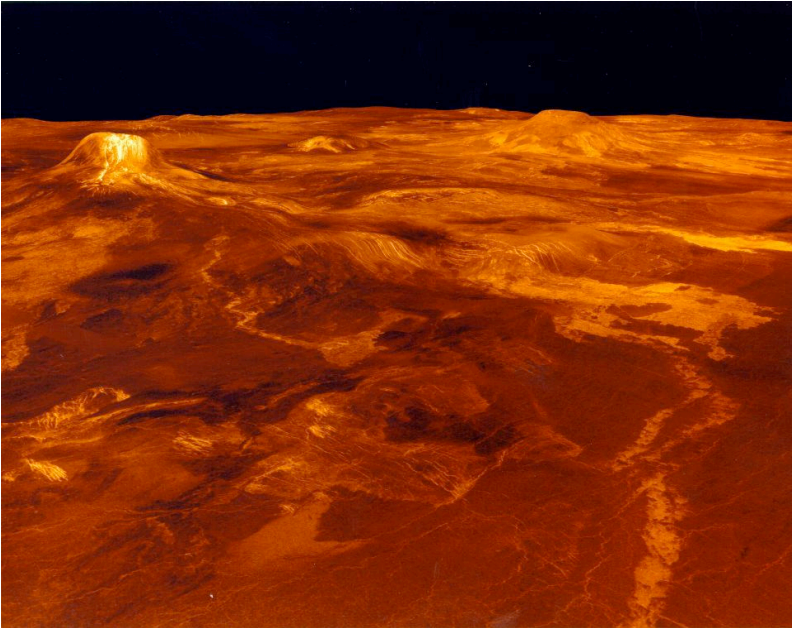
But, with many future things riding on the space program, not to mention the incredible advances in science, electronics and medicines it brings, nobody high up wants to cancel anything. They also do not want to admit that publicly.

Tom agrees to take on a sort of rescue mission; go to Venus, managed to work outside the protection of a spaceship for as much as an hour, and get that probe back on its landing feet.

But, with the average daytime temperature up there some 864 degrees Fahrenheit, nothing he has or knows about can remain intact for longer than about an hour and still allow for movement.

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This book is dedicated to the planet Venus' namesake, the Roman Goddess of love and beauty. Neither have a thing in common: one is lovely and the supposed mother to the Roman people; the other could burn all of Rome to a cinder in a few seconds. One has been studied and celebrated in art for centuries; the other is so uncooperative and contrary it even rotates in the opposite direction from all other planets and features a comforting blanket of CO<sub>2</sub> and sulfur dioxide in its atmosphere. So, what might the Romans have called their Goddess if they had known about that? Minerva? Vesta? Larunda? Flora? (Look them up!)



As the ship eased down through the scorching atmosphere, Tom and the crew got their first good look at the hot, harsh conditions they faced. **CHAPTER 16**

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## AUTHOR'S NOTE

On hearing about the decision to send a spacecraft—and yes, Martha, it will either go at night... or be *unmanned!*—to the sun I stopped to think about a few other ventures into hot places. The several probes that went to Venus in past years came immediately to mind as did Tom's own adventure in Africa years ago where he unraveled a mystery and made an incredible find.

Being basically desperate for story ideas a year ago I wrote down a few title ideas, tried a few brief outlines, wondered what I could make out of it all (“...a hat, or a broach or a pterodactyl!”) and tossed everything in my computer's Trash. Then, I had to go watch *Airplane!* again because that stupid pterodactyl line kept invading my brain!

Some time passed, and a terrible thing happened. I had a power outage while trying to repair disk permissions and scrambled my book storage drive. I had a back up (yes, I do actually back things up and so should you) and lo and behold my older copy still had those book notes.

After re-reading them I thought about it and realized there could be a story lurking in there after all. It took a few more days to flesh out the basics but by golly, it started to come together. And, that is how books are born.

Oh, and that thing I once wrote about aiming for 24 books? I have titles for the next three books sitting here staring at me with their beady little i's and rather cross t's.

Enough with the puns? Okay.

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Copies of all of this author's works may be found at:

<http://www.lulu.com/spotlight/tedwardfoxatyahoo.com>



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# Tom Swift and the Venusian InvulnoSuit

## FOREWORD

While reading the first version of this book I blanched and had a moment where my heart kind of skipped a few beats at one point. When you get to it in its final form you probably will know what I am writing about.

Anyway, I questioned the sanity of the author and realized that would be me, and then wondered why I would do something so horrible. Then, it hit me. Tom grows up in all these books and this is a part of growing up, changing, and adapting.

I am happy with the resolution and hope you will be as well.

Now, to the nature of writing a series of books. It is both very, very hard and exceptionally easy. Hard, because unless you want to write a bunch of spy thrillers where you barely change the character names and simply move the action from Lisbon to Krakow, you have to come up with new and unique circumstances every time. Sure, these Tom Swift books follow a basic formula but how horrible if I wrote books that were the same each time. Yuck!

Then, about “easy.” And, this goes out to all you wanna-be writers. If you have a set of characters that have been developed, a set of morals they live by, patterns of speech, locations, mannerisms and about fifty other things, then all you need do is supply the basic premise. You don’t need to struggle to figure out how “Brad” would speak when telling “Jenny” he is leaving the commune to become an undercover policeman with the Vatican Nun Squad.

These Tom stories come off my fingertips without much in the way of my interfering. I have to make corrections when Bud asks me to type, “But, skipper. Why?” and I actually end up with, “Bud, slipper. why?” It gets worse as I age and my fingers get a little stiff and the morning cup of coffee isn’t providing the same old *oomph* it used to, but I’ll keep it up. At least until I can’t get out of bed or find the keyboard.

*Victor Appleton II*





## CHAPTER 1 /

### GOOD TO BE HOME ONCE AGAIN

TOM SWIFT, twenty-seven year old inventor, and his brother-in-law and best friend for nearly a dozen years, Bud Barclay, were driving along the lakefront of Lake Carlopa. They'd just dropped off a set of plans for final changes to a new ultra-light jet at the original Swift Construction Company that Tom and his father, Damon, hoped to put into full production before the end of the year.

That was only five months away.

In between would be Tom and Bud's twenty-eighth birthdays as well as Tom's sister—now Bud's wife—Sandy's twenty-seventh.

Tom's wife, the former Bashalli Prandit, had recently turned twenty-nine and seemed to be feeling the dreaded "thirty" hovering over her. Like Sandy, she was beautiful and could pass for a woman five years younger than she actually was.

"Do you think Jake and the people at the Construction Company will get the jet prototype completed as fast as he told us they can?" Bud asked.

Jake Aturian was the best friend of Tom's father and the manager of what had once been the primary business concern of The Swift Company; today it was known simply as The Construction Company and was one of about a half dozen individuals companies all owned by the Swifts. The primary one was, of course, Swift Enterprises, a four-mile-square research, experimental, manufacturing and airfield facility located outside of Shopton, New York, near the aforementioned Lake Carlopa.

"Sure," Tom stated. "I hear he has a ready-to-fly prototype already to go. After all, he's had the preliminary plans since before we had to go up to Mars the first time for the Phobos issue."

He referred to the small moon around Mars suddenly exhibiting extra strong gravity spurts that dragged the satellite closer to the Martian surface with potential deadly consequences for the colonists living on the planet below. Each time he tried pushing it back up, it would soon start back in again. Finally, a gravity stone like the ones his Space Friends used was located inside a buried cave, had been disconnected from a power source Tom still had to figure out, and removed once its own internal

power had dissipated.

“Right. I guess I forgot that. You have to admit it’s great being home again. The fresh air, the blue sky...”

“Don’t forget our wives!” Tom warned. “I know Bashalli has been feeling a bit put out from my being gone as much as I was these past four months.”

Bud grinned. “At least you don’t have Sandy to put up with.”

“Want to bet? She’s been after me to declare a moratorium from all space flights for you starting about an hour after we got home.”

At that same time his own wife had stated, somewhat casually, that the children were forgetting what their father looked or sounded like.

It was a ploy of hers he actually disliked a great deal, but it was effective. Since returning five days earlier he had only spent about five hours back at Enterprises. And, most of the “at home” time had been spent with Bashalli.

It gave them time to realize they were still greatly in love.

It was also a chance to talk about what the future held for Tom, for Tom and his family, and for the Swifts in general.

“I know I promised to slow down with the dangerous adventures a few years back,” he told her, “and I have been trying, but things like this Martian moon problem could not be foreseen. I will make this new promise to you that I won’t go looking for adventures, and the ones that find me will be categorized into: I have to do this; or I can let others do this. Okay?”

She reluctantly nodded. “I suppose, but me heart hurts like it is about to break every time you leave. I do not want to be a needy wife to you, Tom, but I do need you more and more as the children grow up. Bart climbed up in my lap while you were on Mars this most recent time and asked me if you didn’t love us any more.” She broke down in deep sobs and buried her face in his chest.

It took her three minutes to get it out and to wipe her face.

“I’m sorry. I shouldn’t have told you that.” She started to get up but Tom reached out and pulled her back down and closer to him.

“Oh, Bash. I’m so sorry to put you in that position. I just get so involved in these things...” he couldn’t say more because now *he* was sobbing. Not as strongly as she had, but the tears cascaded

down both cheeks only to drip off his jaw.

“Why’s you crying, Momma and Daddy?” Bart’s voice came from the bottom of the stairs.

Tom stood and went to his son. “I have done something bad to your mother and to you and Mary,” Tom told his son, taking the boy’s hand and leading him over to sit between the two adults.

He told the boy about his promised that he had broken and how it had hurt Bashalli’s feeling.

Bart asked if it was his fault and both parents hurried to assure him it was definitely not anything he or his little sister had done.

“It’s me,” Tom and Bashalli declared at the same moment, causing them to look at each other and start to laugh. Soon, little Bart was laughing along with them.

Tom remained home the following day and again the one after that, but when Friday morning came Bashalli was feeling miserable about how anxious he seemed to become with each passing hour.

“Go to work, Tom,” she said gently. “I really mean that. Don’t volunteer for anything that will take you more than maybe out on the lake and we’ll have a nice weekend before you start full time back at Enterprises come Monday.”

He looked at her slightly askance. “Are you sure?”

“Of course I am,” she told him with the brightest smile she could muster on her face.

As Tom walked past Munford Trent’s desk outside the large office Tom and his father shared, the secretary looked up and smiled. “Welcome back, and congratulations on the success out at Mars. Your father has kept me updated on everything. Hot coffee on the side table and I will notify Mr. Winkler that you will be here for lunch?” He raised an eyebrow in question.

“Thanks, and sure. Maybe something light like a sandwich and nothing else. Today is not a dessert day.” He opened the tall wood door and stepped into the office.

“Good morning, Son,” his father greeted him looking up from a thick printout of some sort. “How are things at home?”

Tom’s face must have spoken volumes because Damon slipped a pen in the report and set it aside. He rose, shook his son’s hand and pointed to the conference chairs. “Talk?”

The younger inventor nodded and moved over to the conference area.

When the source of Tom's sadness came out, his father nodded. "I nearly lost your mother to my narrow-visioned first three years back here of nothing but work, Son. I suggest that you learn from an older man and try to stay around for the next year or two... or for the rest of your life if you can. Of course, my heading down to the southern hemisphere as often as I do might seem like I don't stick close to home, but other than a couple day trips up to the Outpost or the *Space Queen*, I have remained close to your mother. And my two trips to Mars... If you will recall she came with me."

"Yeah," Tom sighed, "but Bash doesn't like to travel unless she can take the kids and they are still a bit young for long travel times. I just don't know what to do."

They sat in silence a moment before Damon offered, "Stay in town until at least Bart can travel. With his advanced maturity level that ought to be just another year. Mary is going to take a bit longer I'm afraid, but she has two very willing grandmothers so once Bashalli feels the time is right, take at least the three of you up to the *Space Queen*. Maybe just a couple of days, together."

He referred to the giant tubular space station Tom built a few years earlier when he decided his original Outpost in Space had become far too cramped for what he wanted to do in space.

Bashalli had been there three times, but their son had not yet left the ground except to join Tom in a flight down to Albany to pick up a VIP guest for Enterprises about five months earlier. The boy sat in the copilot's seat in Tom's SE-11 "Toad" jet and marveled all the way down and back at how far the ground was from whatever altitude they flew.

"Not really much of a vacation for them unless they want to walk the mile plus of pathways in and around all the crops up there," Tom stated, "although if I could get Bash to go alone with me, she loves to just walk and hold hands. Hmmm..."

"Whatever you decide to do, Son, your mother and her mother will be ready and willing to sit with one or both of the kids."

It was true, and to the point where the two women had, good-naturedly, of course, had a few discussions about how many minutes one of them had more than the other with their grandchildren.

Tom pattered around the office for an hour before heading to

his small underground office and lab next to the berthing level of the *Sky Queen*. There, he made some notes, finalized a few things regarding the Martian moon replacement adventure—including a note to go back to Mars in about a year to remove the spent gravity stone now sitting almost on the opposite side of the planet from the colony.

He suddenly sat upright. He had remembered a promise he and Damon had made to the commander of the Mars colony, Haz Sampson, regarding another large habitat building plus several of his small, “flying saucer” spacecraft. Tom picked up his phone and made a call over to the Construction Company and to Jake Aturian.

“Jake? Dad and I promised a trio of saucers to be built and flown out to Mars. What sort of timetable should I be telling Haz we might do that?”

“Well, if you want to take the three that came off the line last week, the ones that were supposed to be outfitted for the U.S. Army as troop transports, but they just cut back their order to only a dozen and not the eighteen they’d wanted, then just have Haz tell you what he wants inside and we can finish them in about a week.”

That taken care of, his next call was to the Uniforms department, the place within Enterprises where anything needing to be sewn—from the official Enterprises work suits to space suits to Tom’s giant inflatable buildings—was put together by Marjorie Morning-Eagle and her “ladies,” which recently had hired a “gentleman.” He had been brought in to provide the team with something they lacked—an aerialist who had no fear of heights and could crawl or even walk along very thin wires to get to positions above their projects to perform specialty work that might have required a crane. His name was Barney G. Mathison but everyone called him Barney Google.

“Hey, Major? It’s Tom. What’s your schedule like for another Mars sized habitat?”

“Hey right back at you, Tom, and I’ve got a lot on my plate right now, but if you can give me eight or nine weeks...?”

Tom had to laugh; he had been thinking in the three or four month arena, but he ought to know better. Getting her nickname from the military precision with which she ran her department, the Major would never out-promise or pad any delivery estimate.

“Perfect,” he told her. “Take up to ten if needed. Keep me up to

date every week or so, please.”

“You know I will, Tom.”

“Yeah. I really do. Thanks!”

After that he sat back to ponder what he wanted to do next. He’d had a project in the back of his mind for a year... but it would take him even farther afield than simply Mars, and so he put that aside. The ocean world of Neptune could wait!

His TeleVoc pin *pinged* inside his brain announcing a call from Munford Trent.

This was a source of great surprise for Tom—Trent actively hated using his TeleVoc and so Tom had to create a special box on his desktop so he might page Damon or Tom or call Security with the press of a single button.

Tom tapped his pin and it connected through the box and into the secretary’s telephone. Trent answered.

*“Tom? I just wanted to tell you that Mr. Winker is here with your lunch. I figured you’d lost track of time. Are you coming over?”*

“I sure am, Trent, and thanks. See you in seven minutes or so.”

He jumped up and jogged across the floor of the hangar, opting to take the elevator for speed rather than the multiple levels of stairs for exercise he just did not feel like tackling today.

He used the ride/walk belts in the middle of the second floor hall and was stepping off just before the outer office in under six minutes.

“I’m here,” he announced.

“Good. Chow just went back to his kitchen. You said you were not in the mood for dessert, and *he* heard, ‘Oh, Tom is anxious for dessert today,’ and so off he went to get something he says you’ll love.” Trent raised an eyebrow and Tom grinned. The truth was he’d changed his mind and could do with something like a slice of pie.

As the young inventor settled down in one of the comfortable chairs at the conference table, the door opened and Chow, not wearing his usual ten-gallon hat but he was wearing a baseball-style cap with the word, SWIFT, across the front came in carrying a covered small plate.

“Now, I know ole’ Trent out there said you weren’t thinkin’ o’ dessert, but I got a new recipe fer a punkin cheesecake that I

wanted to try out. Not like a lot o' them cheesecakes, but one made with a French cheese I cain't even start ta pronounce! Gots a lot o' dried cherries in thar to boot. Crust is made from powdered dates 'n graham crackers."

Tom eyed the slightly pink dessert and shrugged. "If you say it's okay, then I'll give it a good try. Thanks, Chow."

When he put the tip of his fork into it even before taking up his roast port tenderloin sandwich and gave it a taste, Tom nodded and took a larger taste. It was reminiscent of roses and sweet cream. He set the fork aside and picked up the sandwich, which he did not put back down; he ate it in about six big bites.

The cheesecake also went down quickly before he stood up, stretched and headed for his desk. Tom and Damon shared this big office mostly because Damon had designed it to be spacious and found almost immediately it was just too much room for him alone. Tom had been given a small office down the hall when Enterprises was first built, but had been invited to share the big space within a few months.

He checked some notes in his To-Do file and found nothing he really wanted to tackle at the moment. He was about to rise when Trent knocked lightly, came in and handed him a small stack of correspondence before taking a slightly taller stack to Damon's desk.

"Where is dad, by the way?" Tom inquired.

"A meeting with the President and Senator Quintana in Washington. Don't ask as I have not been informed as to the purpose." He left.

Tom's mail—four letters and three email printouts—were mostly handled by scribbling short notes to Trent as to their disposition. One, however, caught his eye.

Dear Tom Swift,

Surely you will not remember me as our one-time meeting was more than nine years ago and I must have not presented much of an impression. At the time I asked you to review an article, which I was to submit to a major scientific journal, and you did not send me anything other than, "Looks fine to me."

I have gotten over my disappointment. Surely things must always be happening in the world of Tom Swift. But, your quick and very impersonal note to the effect that you felt it

spoke for itself was vague and unsatisfying to me.

My hope is that now you are older and more mature, you will finally give me the credit in whatever journals you publish in for my insights.

Joe Blakely, Certified Scientist

Tom wracked his brain and could not put a face or even the incident anywhere it made a bit of sense to him.

He noted on the page: Harlan? Just in case...

He went back to thinking about what to do next. He knew it needed to keep him on the ground, or to within a few thousand feet of it, and for an extended period of time. While he felt his marriage was solid, he had been remiss on too many occasions of not taking Bashalli's feeling into consideration.

That, he told himself, was to change. It had to. Not only because he loved her but for the sake of their children. Even little Mary had looked at him seriously at dinner the night before as if trying to recall who he was and how he fit into her tiny world.

His father contacted him about an hour later on the radio-to-phone link the control tower set up.

"Hello, Son. I'm coming back from DC and a very interesting meeting with Peter Quintana and the President. It seems I have a very important new mission. I wondered if you and the family might want to come over tonight. I might be able to use ten minutes of your time and thoughts, and time is a very precious commodity on this one."

"Sure. Let me check with Bash and then I'll call mom and tell her you need to see me and dinner is a great excuse. I might even offer to do some shopping for her."

Damon chuckled. "The day your mother isn't ready to feed twelve at a moment's notice is the day I take her in for a really thorough mental health exam. But, a little forewarning would not go amiss. Thanks! Got to go."

Tom called Bashalli and she said it was a wonderful idea, "But, only as long as your father does not get you involved in something to take you to the Moon or Pluto or anything like that!"

"No, this is, or at least I am pretty certain it is, something to do with Europe and a new project dad is in charge of. Nothing really to do with me except for him wanting some advice. I'll call mom



and let her know.”

“You do know that I love you, don’t you, Tom?”

“And,” he replied, emotion sticking in his throat a second, “do you know I love you and the kids more than anything in the universe?”

“You’d better, mister!” she said and he could hear the smile she had on her face.

After saying goodbye he dialed his parents’ number.

“Momsie, it is your one and only son. And, in case you have forgotten me after all these months, I’m the one you said was the only son you loved, but that you also loved some other person... Sardine... Sardinia... no, wait, it was Sandra. Right?”

“Ha-ha, Tom. May I take it this is not a social call?”

“No, dad radioed in he needs to talk to me tonight for ten minutes and suggested it might go down better with you and Bash if we made this a dinner. I will be happy to go pick up anything you need.”

“Surprisingly, I do not have enough fixings for my special spaghetti sauce. So, can you pickup...” and she dictated a list of no fewer than eighteen items.

With each one, Tom’s grin got wider. *Mom has everything for an instant feast, indeed!*

What Damon wanted to discuss was a new project—nearly a mandate—coming from the President having to do with building some surveillance aircraft, but not actually aircraft.

“Huh?”

His father smiled. “Ever heard of the Ekranoplan?”

Tom had to think a moment before his memory dredged something up.

“Wasn’t that the air cushion, or surface effect aircraft the Soviets played around with back in the nineteen sixties and seventies?”

“And, eighties and even the nineties. Yes. Raced over the water just four to ten feet up at hundreds of miles per hour on, as you said, a cushion of air with the aim of coming up with one that might get nuclear-tipped missiles close enough to threaten the United States. Never worked very well. A number of them had

accidents where they dipped a wing into the water, cartwheeled, tore apart and sank. Even the big ones that could really travel fast needed a large number of massive jet engines on them, drank fuel by the tankerload, and couldn't actually get here without at least one and maybe two fueling stops along the way making them sitting ducks."

The younger man nodded. "So, what is the real question, Dad?"

Damon paused, looking uncomfortable. "The President is asking me to build at least ten small reconnaissance ones to go up against what appear to be about a dozen small and very fast Russian missile-carrying boats threatening the coast of Norway. I'm in a bit of a quandary because in the end, if this is a Russian precursor to an invasion, this all could lead to war!"

## CHAPTER 2 /

### AN EARTHBOUND MINI-ADVENTURE

TOM AND Bud were flying a recently updated version of the inventor's favorite small jet, the SE-11 FE, or Flight Extended model. The twin SJ-11 Jet turbines had been replaced with a totally new type of jet engine, one that burned compressed air/fuel mix for takeoffs and landings, but switched to a secondary drive for momentum, a very small addition of a repelatron driven turbine inside the same case that could keep the jet at about 470 knots once at altitude.

"It's kind of creepy to be flying along and suddenly the noise shuts off," Bud commented as they zipped through the skies over Nantucket Sound having just crossed over the flexed arm-shaped spit of land to the south of Cape Cod Bay.

They'd flown a diagonal course from Shopton to Boston and then out into the Atlantic where they turned to the south. Eventually they would circle around Fearing Island off Georgia and return to Enterprises late in the afternoon.

"You're right, flyboy, but even with this reduced speed I think quite a few potential customers will like the changes. We can even get it up over five-twenty if we also run the jet turbines components at half throttle. That reduces the overall range, but we can extend the normal flight distance to nearly thirty-four-hundred miles that way."

"How many on just the silent turbine bits?"

"About eight-hundred more."

Bud's face took on a look of concern. "Why only that little bit?"

Tom chuckled. "Mainly because you need to run the regular jet fueled turbines at least twenty minutes out of every hour to generate more electricity, and speaking of which—" and he stopped talking to press a spot on the wraparound monitor that was the complete set of instruments for the jet. Within five seconds the "normal" noises of the jet turbines came back into their ears—greatly reduced by the noise reduction circuitry in the passenger compartment.

"As I was saying," Tom continued as if nothing out of the ordinary had occurred, "you have to run the turbines twenty minutes out of every hour to keep the battery pack charged. The

designator is for 'extended,' not infinite travel after all."

Bud nodded. "Uhh, skipper? What if the pilot forgets?"

Tom shook his head. "The onboard computers give them a five-minute grace time and then start the turbines automatically. Takes the guesswork out of things. I'm going to suggest we change that to on the hour, flight time, with an automatic voice reminder to all inside that the normal engines, or whatever we decide to call them, will be coming on in thirty seconds."

Bud grinned. "Going to have Bash do that announcement?"

Now, Tom grinned. His wife had been the official voice of Swift products for more than three years. The first cars to come out of the Swift MotorCar Company had her perfect diction and calming voice giving all verbal indicators.

The fact was, she loved doing it and practiced each and every piece she was to read until she was satisfied it sounded genuine and not rehearsed. And, if customer comments were anything to go by, very few—less than two percent—of them said anything even slightly negative about the voice.

Those were typically very old men who did not like the sound of a woman talking to them from a mechanical device. Or, especially their cars.

"Gives me the willies," one man had said when he took delivery and asked that the voice be silenced. "Sounds like my late wife is still there nagging me about how I drive!" Other than the warning that the seat belts were not properly attached for each detected passenger, the change was made and he was happy.

After the engines cycled back into standby, Tom gave control to Bud.

"Just down to Fearing with no touch down unless we need to or they ask us to."

Bud gave his friend a thumbs up sign and concentrated on flying.

Everything seemed to be going just fine... until they passed forty miles east of Nags head in North Carolina.

"Can you see that?" Tom asked, alarmed as he pointed down toward a large ship below.

"No. Let me circle around." Bud put them into a moderately steep right turn. "What am I looking for?"

"Two things, Bud. First, I could have sworn I could see a

submarine snugged up against their port side, and they are bow south right now, and then something was trailing out of that same side of either the ship or the sub. Look!”

Bud could plainly see what Tom was talking about. From their altitude of just above twenty-thousand feet nothing was absolutely distinct, but that ship, possibly as long as eight or nine-hundred feet, did have more than a shadow to their left. In fact, with the sun almost overhead it would be impossible for anything to be casting a shadow on that side.

From the position of the sail and the approximate length, Tom believed it might be an older attack sub.

He picked up the microphone and nodded to Bud. Without saying a word the pilot put the jet in a downward spiral so they might get a better look.

“This is Swift Two calling Eastern Seaboard Shipping Control. Over.”

*“Swift Two, this is ESSC. State the nature of your call. Over.”*

Tom told the operator what they were seeing and reported the exact GPS location.

He was told to hold while the U.S. Coast Guard was brought into the conversation.

As soon as a woman identifying herself as Lieutenant Commander Jane Wyams came on the line, Tom repeated everything he had just reported. When she made no reply, he asked if his message had been received.

*“Uhh, yes, Swift Two. Who am I speaking with?”* she asked.

“This is Tom Swift, Lieutenant Commander. May I ask what you want us to do? We have the ability to remain on station, as the Navy and Coast Guard call it, for up to six hours. Over.”

*“Uhhh, Swift Two, please leave the area and allow the Coast Guard to attend to this. Over.”*

“You *did* get the part about them pumping what looks like oil or fuel overboard at this moment, didn’t you? Over?”

*“I shall state again in no uncertain terms. Get out of the area, Swift. This is of no concern to you. I repeat, leave the area. Now!”*

With that the radio connection, at least to the Coast Guard, went dead.

*“Mr. Swift? It’s Dave at the ESSC. I caught that, but I’m not sure she understood I was still on the line. Is there some way you*

*can get some pictures or video of that spill? This might need to go higher than the Coast Guard! Over.”*

Tom told the man he would do that and signed off.

Picking the Digital BigEyes from their holder, he aimed the combination optical and digital enhancement binoculars at the ship and sub and zoomed in. With them he could see that the ship had its name ground off and painted over on both the bow and stern, and the submarine bore no insignia, number or name.

It soon became clear as they came down to just eight-thousand feet people on both the ship and the sub spotted them and everyone outside was scurrying around. Within three minutes the submarine sank straight down from the side of the ship, and the ship got underway swinging her bow around to a course of one-five-zero. The closest point of land Tom could figure was on that approximate course was Puerto Rico, or beyond that either to Venezuela or Guyana.

Tom radioed back to Enterprises and asked to speak with his father. After explaining the situation along with the demand by the woman supposedly with the Coast Guard, he asked what he and Bud should do.

“Come home right now. I’m calling both Peter Quintana at his Senate office as well as former Admiral of the Atlantic Fleet, Admiral Hopkins. I hope to have gotten to the bottom of this by the time you get back.”

After touching down and taxiing around the buildings and parking at the Barn—the open-sided hangar situated close to the main building cluster—Tom and Bud hopped out and jogged for the Administration building. On the way Tom tapped his TeleVoc pin and called his father.

*“Yes, Tom. Are you back?”*

*“We are and are heading your way. Anything is should know?”*

*“I’ll tell you when you get here. Be sure Bud comes with you.”*

As they walked down the hallway, Tom told Bud his father’s mysterious message.

“Well, it’s a good thing I wanted to drop in on Chow to see about getting a late lunch,” the flyer said with a lopsided grin.

Together they walked past Trent in the outer office acknowledging the man with a nod and smile before entering the office Damon and Tom often shared. Damon was sitting in one of the leather conference chairs speaking to a floating face.

“Oh, hello, Tom and Bud,” the face said, smiling.

“Hello, Senator Quintana,” the younger inventor greeted the senior senator from New Mexico, and a good friend of the Swifts.

“So, I understand you two spotted something untoward out in the Atlantic, and that you reported it to the Coast Guard who told you to skedaddle. Is this right?”

“Yes. But, did you hear about both the sub *and* the oil or whatever leaking out of it?” Bud said almost immediately regretting being so impetuous.

Peter Quintana nodded and made a sad-sounding chuckle. “Yes, I did. And, the call I made to the Commandant of the Coast Guard was both an interesting one, and a frustration for me. He sides with this Lieutenant Commander in that he wants it made clear that there are to be no further overflights of that area and no circling around with either binoculars or cameras. He was rather rude and I am taking the matter to a higher authority than him. In the mean time, did you by any chance get some pictures of what was going on?”

Tom nodded. “We did. I have them on a memory card in my pocket. If you can give me a minute to get them into the telejector system you will be able to see them.”

Damon turned and gave his son a curious look. He knew the system could read the card directly but said nothing as Tom got up and went to his desk where he inserted the card in his computer and copied everything.

When he came back he surreptitiously put the card in the reader slot of the 3D projection device and soon had the video up.

Senator Quintana looked at the two-minute piece with increasing agitation. When it was over he finally spoke.

What he said was not legally broadcastable so it was a good thing this was a private audio/video network.

He held up a hand to stave off any comments and took three deep breaths.

“I’m better and sorry for my choice of language. I need to tell the three of you something that does not leave that room. Do I have all your agreements?” One by one Tom, Damon and Bud said they agreed. “Good. Sorry to make that sound like a flight attendant talking to people in the exit rows, but here is the deal. That ship does not exist!”

Everything from deep curiosity to outright disbelief registered

on three faces.

“I’ll continue. Very unofficially, that ship was part of the U.S. Navy’s attempts to retrieve old Soviet era submarines a decade ago. It never pulled up a single one. Now we all know Tom took possession of that former super submarine transporter years ago and did just that, so that ship you saw was supposed to have been stripped of anything secret and piloted to Sri Lanka where it was to have been broken down and the steel recycled. They even sent a video of the beaching and then weekly video status reports on the tear down.”

“It would appear,” Damon stated gravely, “that the reports of that ship’s death were greatly exaggerated!”

Peter nodded. “Yes, so it would. My first thought is a look-alike ship was dismantled. That may be the actual case and this ship continued hiding on the open seas for years. And I cannot fathom what submarine might have been parked next to it, but I am going to call an expert who is retired and outside of the influence of what would appear to be a very nasty cover-up.”

He promised to let them know and reminded them of the absolute demand for secrecy.

“Well,” Tom said taking a deep breath, “that makes me rather uncomfortable. What in the world do you suppose Bud and I uncovered, Senator? Dad?”

Damon got up and paced a moment before facing the two young men and replying. “I have no idea, but I think it might be something to do, for us to have the old Outpost take a look around the area with their Megascoper prober and try to trace the route that ship took after you spotted it leaving the area. Give me the coordinates again and the heading you believe it took.”

Tom provided the information and then asked if he might find a way to track the mystery ship.

“If you can do it without hovering or even flying around it, then my answer is I wish to see all evidence gathered regardless of the source and will do everything I can to protect the privacy and confidentiality of any such source.”

After the conversation concluded, Tom got in contact with the commander for the now partially civilian and partially private company space wheel, now referred to as Space Outpost One. There was and would be no Space Outpost *Two*, but the marketing company now handling who went up and who was there on semi-permanent rotation thought it “sounded better.”



“Commander Stevens, it’s Tom Swift. How are you, sir?”

“My goodness, Tom. Great to see you,” stated the balding fifty-year-old man, who had once been Captain to Ken Horton, the previous Outpost commander—who now spent nine months of the year in the *Super Queen* giant space station—when Ken was first on active military duty.

It had been his suggestion to hire the one-time shuttle astronaut as his replacement. And, it had been Randolph Stevens who had piloted one of the shuttles Damon had warned against launching—due to a programming fault—to a safe if hair-raising landing in Florida.

Commander Randolph ran his hand over his bald dome. “Say, how’s your father these days, Tom? I hope he’s over that whole shuttle debacle. I know I am. But, I’m guessing from the look in your eyes this is not exactly a social call?”

“No, not as such.” Tom explained about the mystery ship, its submarine companion, and the Coast Guard’s demand it basically be forgotten.

“Nope! I certainly wouldn’t let that one go. Let me have the team take a look down in the Atlantic and Caribbean. I’ve written down those coordinates and the course, but I’ll widen that by just about everything from the Florida coast out to Bermuda. I’m guessing this is a not for public broadcast situation?”

Tom nodded.

“Fine, then it’s either you or Damon unless you personally tell me otherwise. I’ll let you know in eight or ten hours if we are onto anything and then give twice-daily updates until we have definite info.”

“My thanks to you, Randy. I know dad will want me to send his regards, and the answer is basically yes; he has put the NASA stuff behind him but he won’t forget what happened and nearly happened. Speak with you later.”

Tom was at home with Bashalli and little Bart and his sister Mary when the call came in from Enterprises before eight the next morning.

He excused himself—he’d already told Bashalli about the flight and the mystery ship and sub and she’d agreed it was nothing for her to ever speak about—and headed for the small bedroom where he kept a home office.

“This is Tom,” he said into the telephone receiver.

“Skipper? I’ve got Randy Stevens up at the old Outpost on the line. Okay to transfer it to you?”

“Yes.” A moment later there was a trio of small clicks and the voice of the commander came on.

“Tom? It’s Randy Stevens. Boy, have we got something for you. That ship? It just ran aground on some rocks on a small island to the north of Freeport in the Bahamas. Place near Grand Cay but in a group of tiny bits of land eighty miles to the northwest. We watched it happen less than ten minutes ago.”

The young inventor was shocked. “Uhh, did it just ground or break apart? Is there any spillage the authorities need to know about?”

“None we see. But the strange thing is there was a large yacht waiting nearby complete with a helicopter pad and they airlifted nine people from the ship immediately and then turned to the east heading who-knows-where at about twenty-four knots.”

It took Tom a moment to digest this information.

“Can you please relay down the video from all that? Also, keep watching where that yacht goes. I need to get to a contact we have in Government with all this. And, thanks!”

“You’re welcome, Tom, and just so you know, the helo deck on the yacht is red with a yellow plus mark on top.”

After signing off, Tom called back to Enterprises to tell them to expect a download and to send it straight to his computer. “I’ll be in there in about forty minutes to handle it.”

After poking his head out of the room and telling Bashalli he was onto something very sinister and needed to make one more call, he picked up the phone and dialed the private cell number of Peter Quintana.

“I’ll assume that since the caller ID says Tom Swift, it is actually you,” the man said as his greeting.

“Yes. And about that little ocean thing...” and he gave the senator a brief description and said he would have some video to show in perhaps an hour.

Peter Quintana was quiet for a minute before he said, “Wait until late this morning and we can get on the telejector channel. Then, update me with anything you have. In the meantime I will make a call to someone who might be in the loop and ask what he

has to say if I repeat a *rumor*. I'll talk to you about, oh, can you be in at eleven?"

"I sure can since I guess I don't have to go in right this minute."

When he got back to the table Bart asked him if he had called an important man. "Momma says you were making a very important call to an important man," he explained.

Tom smiled at his son. "Your momma is right. It was a very important call to a very important man. You've met him before. Do you remember the man I called senator? He's a friend of your grandpa Swift?"

Bart thought a moment then brightened. "Peter? You mean Senator Peter?"

"I do," his father said with a nod.

"Did you talk about secret stuff with Senator Peter, Daddy?" His voice had gone to a whisper.

"I did, but it isn't important to you. What is important is that you finish your cauliflower and eggs with that very delicious cheese sauce your mother made for all of us."

Bart smiled and dug into his now rather cool vegetable managing to get the orange sauce all over his mouth and even the tip of his nose. Mary, on the other hand, was a bit fussy about what she ate. She sat in her high chair staring at what her little mind thought of as an offense to her stomach.

"She's more like your sister, Sandra, with every passing day," the girl's mother said, a little sadly.



## CHAPTER 3 /

### THE OIL STRIKE

“REMEMBER WHEN I was perfecting the Deep Peek and we flew it all around Shopton?” Tom asked Bud as they sat in the underground office and lab space two days later. So far, Peter Quintana had not gotten back to either Tom or his father.

The Deep Peek had been developed during the Martian moon problem and could look with close to photographic results, hundreds of feet into the ground.

“Sure. We found a lot of water deep under the south side of Shopton you say could be a danger in case of a strong earthquake, and that spot on the other side of the MotorCar Company where you think there might be some oil shale. Why?”

“Because that oil shale field could be a potential boon to this company and to the entire area. Think of it, Bud. If it is like the average find, and goes down three thousand feet, then for every twenty-six square acres of horizontal space there ought to be about a million barrels of oil to be had. That’s possibly fifteen million barrels of oil we found close enough to the surface for the Deep Peek to detect, and that could infuse our company and the local economy with over nine-hundred-million bucks at current prices.”

“Wait. Isn’t that on land your family owns?”

Tom had to think about this. “I suppose part of it is since it is fairly close to the MotorCar Company and we made certain nobody could build within at least five miles all around.” He paused. “I think this is something I need to discuss with the folks up in Legal.”

Bud said he had a lunch date with his wife so he left three minutes before the young inventor walked from the office.

When Tom arrived in the outer offices of the Legal department, the receptionist greeted him with a warm smile and a nod toward one of the doors on the back side of the space. “If you want to speak with Jackson, he is in the office, but only for perhaps the next fifteen minutes. Then, he and your father are having lunch with Jake Aturian over at the Construction Company.”

“Then, I’d better make this brief,” he told her as he stepped around the front desk.

“Tom! Welcome and make it brief. In case my able assistant at the front did not inform you I’m having lunch with your dad and Jake. So, sit and tell me what is on your mind.”

“A couple things.” He began with a quick briefing on the mystery ship, its companion sub and the grounding. “Senator Quintana has taken up the reigns on this and I’m hoping to find out something today although I’d like to know our legal position when it comes to things out on the high seas. But, that is only number one. The other has to do with something I think you know about, but it has raised some legal questions.”

“Well, even though I have somewhat petite—what some might call shell-like—ears I am all of them. Ears, that is.”

Tom spent ten minutes telling the attorney about his Deep Peek and what all it had spotted, or potentially spotted, during local testing.

“So, and I have not talked this over with dad, do we have any rights to explore the oil possibility, and try to do something about all that subterranean water we also found. If we ever have an earthquake, it could liquefy the ground and that could cause untold damage to Enterprises and even into Shopton.”

Jackson looked at his watch. “I think you had best come to lunch and we’ll make this number two on the discussion list.” He rose and made a “come with me” motion with his right index finger.

Tom had thought the lunch might be “out” or at least at the Construction Company and was surprised when Jackson led him out the office door and just across the hall.

“The Executive Dining Room?”

“Sure. It is convenient, except maybe for Jake, and I hear the chef does a fantastic steak. And, today, I feel like something pink in the middle with a horseradish sauce!”

If Damon was surprised to see Tom he gave no indication. As he sat next to his father, the older Swift asked out the side of his mouth, “Told Jackson about the ship?”

“Yes.”

Jake had to be let in on the secret about the ship, but they were early enough that there were no others in the room other than Chow when he came in with their salads.

“What did the video show?” the layers asked.

“It showed the ship in time-lapse starting about the time it passed Jacksonville, Florida and all the way down until three minutes before the grounding. Then, they let it go in real-time and a fairly close up view of just a quarter mile all around the ship. It is startling that anyone could do that on purpose, but the real shocker is that about midnight a series of explosions took place in the Bridge area as well as the main cargo hold.”

He told them the ship split open on her starboard side, causing them all to imagine the horrible spillage of fuel oil and the ecological disaster.

“They must have computed their fuel levels to the last gallon. The Outpost shows fewer than about thirty gallons leaked out and some of that appears to be very old bilge water mixed with some oil.”

“The really terrible thing is the lack of cooperation or even concern by the Coast Guard,” Damon said sounding disgusted. “I’d like to call the Navy and our old friend, Admiral Hopkins, but I hear Peter Quintana in DC wants to drive this one. So,” he sighed as he set his fork down, no longer as hungry as he had been, “I guess we let the man do his best.”

Jackson, ever the pessimist, asked, “What if his best isn’t getting us anywhere?”

“Then, I am afraid this is totally out of our hands other than to continue to collect video evidence until somebody finally wakes up.”

They ate in silence until the meal was half over when Jackson looked up. “Hey, Tom had something else interesting to ask about. Go ahead.”

The inventor reminded the others about the development and testing of his Deep Peek. He outlined the things he had spotted under the surface of the surrounding area.

“Between us—and edging under our north wall a few hundred feet—and town is a field of subterranean water that must be the result of eons of seepage from the lake and even rainwater. It is nearly three miles wide and goes down starting about ninety feet all the way to the limits of the scans, but it seems to be thinning out by that point.

“The other thing we found, and this is the one I need both legal and adult advice about, is we are sitting on, as is the MotorCar Company and extending perhaps five miles farther south, a very dense field of what appears to be oil shale. As in millions of

barrels of oil within strata of shale rocks.” He looked at the other men.

“The question is, since we have discovered it, do we have the right, or even the desire, to explore that oil. I think we might offer to give some of the proceeds to the county and the city in return for them backing up our rights.”

Damon looked at Tom and then the lawyer.

“Interesting question, by which I mean I have no comment other than to say I need to do some serious research on this. I do have one question and it concerns reports out of the Dakotas regarding some earth tremors and ground subsidence they have detected primarily over the top of their own fracking fields, as I believe it is known.”

He looked startled when Tom smiled broadly.

“I have what I believe is the solution to both issues, meaning the underground water and the oil. You see,” he explained, “I have developed a new foam product that pumps in as a very thin liquid, mixes with moisture in the ground or wherever, and sets up like concrete within thirty-six hours. I didn’t have a use for it until just now. Also, since it takes so darned long to set up and it really only thickens in the final hour or so, I figured it was useless.”

“But,” Damon said picking up what he was certain was the story, “if it has long enough to drift into the areas where there is the groundwater, it can set up and become a barrier above it so there can be no shaking to mix it into a slurry and thus causing untold damage! I think we all remember reading about what happened in San Francisco back in the late eighties.”

Rimmer muttered, “Some of us were alive when that happened!”

Now, and to his father’s surprise, the younger man shook his head.

“Sorry, Dad, but what I think I’d *like* to do is to draw out the oil from the shale and replace it almost immediately with the groundwater. Then, at the same time I pump in the foam product to replace that water and there ought to be enough more water seeping in to help set it up! The thing I neglected to mention is the foam expands up to a couple hundred times its volume before solidifying. Even if only a little water comes back in, we ought to be able to fill both voids.”

Jake inquired, “Is that possible, Tom?”



“It will take coordination and two good teams working in constant contact, and we will need to draw out the water starting at one end and work our way across, but that ought to be fairly simple as the expanding foam will act to squeeze the water along and out of the way.”

He thought a moment and added, “We may need to drill a few pressure and water relief holes in case the foam expands faster than we get the oil out and the water in there to replace it.”

“Sounds like on heck of a project,” the lawyer told them all. “I believe we’d best have a pretty iron clad plan of action, and one for contingencies, before we go to either the city or the county. The state for that matter and possibly even the Federal Government!”

Tom grinned. “I’ve got nothing to do right now and this will keep me on the ground which will make my wife and kids very happy.”

It was eventually agreed to try to get permission to drill at least a dozen wells both in the water field as well as out past the MotorCar Company into the area with the shale. He’d only mentioned the water to the local governments.

As Tom pointed out, the wells would give them a much better idea what they were dealing with as far as the amount of water, plus how far down it extended—and the amount of oil that might be extracted from a given amount of shale.

Within the week, Rimmer reported the city had given its permissions for up to seven wells of no greater than one foot in width and no deeper than four-hundred feet. Though the odd number was a minor curiosity, the well size was completely within Tom’s desires. He responded that he planned on only going down some three-hundred feet.

“Have they given us any limitations on where we may drill?”

“They ask that we steer clear of housing by at least three-hundred feet and any improved—meaning paved—roads by one-hundred. Other than that they have no issues as their own hydrologist has informed them of the dangers of allowing that water to remain for very much longer.”

Tom raised his eyebrows. “So, they are anxious for us to get to doing this?”

Rimmer nodded. “Let’s say they want the results as soon as they are available. As for doing something about it, even the City

Planner tells me they might require as much as a year to come to a decision, and he says they could be obligated to put the project out to bid.”

Tom’s face clouded. “Do they know we plan to pump the water out in conjunction with the fracking?”

“I did not feel it proper to tell them about that. All he said was it was an expensive thing and he could not speak for the City Council and the City Attorney who might insist this be a one-year bid cycle.” Jackson Rimmer shrugged.

The young inventor was philosophical. “But, they have no issues with us bearing the cost of the test drillings?”

“None whatsoever!”

Swift Enterprises had, preparatory to building the Swift MotorCar Company just a couple miles to the south, purchased a small drilling rig, one with enough drill piping to go down as far as three-hundred-fifty-seven feet. It was used to test the suitability of the grounds for building heavy structures. All it required was a tank truck—also available to them—to pump in enough water under pressure to force the drilling fines up and out of the hole. At a stopping depth of eighty feet, and well into solid bedrock, they had never drilled far enough down to hit any of the potential oil.

That would not be an issue, in Tom’s mind, once they reached the underground water at a depth of about ninety feet in many places.

It only left the matter of how to dispose of the fines and mud. And that was where Jackson Rimmer earned that week’s pay.

“I have an acquaintance in Thessaly who is trying to fill in a rather deep hole before he plans to put in a city park. Evidently, the citizens over there like Shopton’s downtown park and want one of their own. So, he is willing to bring a front-end loader and a dump truck over to any and all of our drillings and load up and haul anything coming out of the ground that is not toxic away!”

“Remind me to buy you a really good single malt whisky the next time I am down in the city,” Tom told him with a grin.

He set about making arrangements for the first drillings and put together a team of men and women he knew would be more than up to the task.

Hank Sterling, the tall and beefy engineer who normally made all the patterns, forms, jigs and whatever else was required to

build multiple copies of any device or vehicle, was his choice for the lead. Hank had been with Tom on many projects, safe and easy and even hard and dangerous, over the years and was someone he trusted to give his all. Along with Hank Tom assigned Robert Einstein, Al Easton, Melanie Babcock—who had worked in Texas on an oil rig for five years earning her way through college and most of Graduate School—John Carpenter and Sandor Van Pelt, a geologist.

Together they went out to the unimproved area of Enterprises' east side and made a test drill down to one-hundred feet.

It took then a few tries to get the drill to set correctly in the ground and to drill straight and true, but as they reached the seventy-six-foot mark extra water started to come up.

They halted, took several water and drilling fines samples, and then capped off what they had done that day. Everything was taken to the testing labs in the same building Hank had his workshop.

By the following morning three things had come of the tests.

- 1) The water apparently was seepage from Lake Carlopa having all the same characteristics along with minerals consistent with the soils between lake and test drill.
- 2) The surrounding soil showed a minute amount of insoluble petrochemicals that indicated the proximity of actual oil.
- 3) At some point in history long forgotten, that corner or Enterprises had been the site of an old mine dump. The soil and small gravel bits had traces of explosives residue like the dynamite that might have been used to open large areas of rock and dirt more than one-hundred years in the past.

“Is it significant?” Damon asked as he perused the report Tom handed him.

“They seem to think not, but as the water we want to bring up, temporarily, is not for human consumption it is unlikely to hinder the efforts. As you can see at the bottom, in parts per million, it is lower than any acceptable amount for water that is to be filtered and purified for home or industrial use.”

“When do you believe you can start the real drillings?”

“I’m hoping next week but not until I get a chance to make one of two test drills into the oil shale.”

“Permissions?” Damon asked nodding to Tom.

“The county has told Jackson they want the chance to think it over for one to two years, but there is nothing in the law saying we cannot make these first drill points inside the car company boundaries. Even one at the east end and the other at the west corner.”

His father agreed it was useless to wait for up to two years for the county, the same body that had tried to make it so difficult for Damon to build Enterprises in the first place.

“Go for it, as long as Jackson feels we are within our rights.”

“*Well* within them?” Tom asked smiling at the intended pun.

The following Monday, and just before they moved away from the approved zone for the water drillings and into the MotorCar Company grounds, Hank and his team suited up in special protective gear—the sort to keep them from being covered with anything in the oil family as it came up—and set the drilling head against the ground. They were only fifteen feet inside the fence line, but with the other equipment they had to pack off and keep anything in the ground they did not want to come out, they felt that was sufficient.

Tom stood outside the safety zone and watched as the first of the drill pipes disappeared eighty percent of the way into the ground. The next pipe and the next one were attached before they reached bedrock. Like the grounds of Enterprises and the car company, that was expected, or at least within ten feet of where they hit it.

After that, drilling went slowly. They halted at eighty-eight feet so the water truck could go fill back up. As it trundled away, Tom walked over.

“Going as planned?”

“Just about exactly, although I have to believe we might be getting close to the shale fairly soon. We’ll know in another pipe or so. Uh, Tom? Would you like to suit up and stand closer or are you happy with the vantage point over there?”

“I’ll let you experts do the things you do, and I’ll be a clean long-distance supervisor, but thanks all the same. What will we do with all this wet muck?”

“This time I think we are on our own, but once we get to oil shale, we have to treat it as a hazardous materials. That will be

collected and taken off to an authorized site once we make sure nobody can look it over and go, ‘Golly! They’ve got oil up there—let’s go get it for ourselves!’”

Tom nodded. It was something he feared, but Jackson had told him to collect a good sample and he would have it assayed and the claim made within the hour. Then, if someone tried to drill within fifteen miles in any direction, other than the Enterprises people, they would be subject to arrest and confiscation of all equipment plus substantial fines.

“Somewhere in the tens of millions in fines, Tom,” the attorney told him. “The U.S. Government was browbeaten by the big oil companies decades ago to protect their claims, and now it works against them or anybody else who would seek to profit illegally.”

When the truck came back twenty minutes later and hooked up to the drill pump, Hank signaled his people. Around and around turned the drill pipe and down it moved.

But, three minutes and seven feet farther down the big engineer signaled for a halt. The drill stopped turning one way, reversed and was brought back up by one full pipe’s length.

Coming up with the water and the bits of shale, was the definite sight of something thick, black, and *oily!*



## CHAPTER 4 /

### THE GREAT LAUNCH

EVERY NEWS agency, television network from around the world, and even fifty or so “local” stations from the eastern seaboard and Midwest were on hand as NASA entered the final one-hour countdown for the new Venus Surface Probe launch.

Swift Enterprises had been contracted for the interplanetary engine that needed to run at a constant rate halfway out and then with a flip-over of the craft, run the rest of the way to slow the vehicle and put it into an orbit.

While Damon had spearheaded that effort, it was a variation of Tom’s own repelatron technology that was incorporated to do the work. However, rather than requiring it to press against a planet for motion, it worked against two things: water and sulfuric acid.

The water was so it might use the bulk of the Earth for the outward mobility and the sulfuric acid because that was a major component of the atmosphere of Venus, its target.

Four high-capacity solar panels—also a product of the Solar Power team at Enterprises—would tilt out from the body shell to provide the power and would always point directly at the sun.

It was the main launch vehicle, a traditional liquid hydrogen and liquid oxygen rocket that would be the impressive part blasting out flame and billowing smoke and steam as it rose from the launch pad. The rest, a three-month inward journey accomplished because of the proximity of the two planets during that period, would be rather unexciting and even mundane. Public opinion and excitement would not be changed or rekindled until the few days before the probe was due to go into orbit, and again a week later when the lander was due to detach and make the all-important landing.

Even the work of drilling was put aside during the final three days of the countdown as everyone from Tom to Damon and even Hank checked and double then triple checked their work and all the data being transmitted back to Enterprises. Damon had insisted that a package of data collection and transmission electronics weighing five-point-three pounds be included in the final launch weight so they could make these checks.

When one NASA official refused, Damon told him the final

stage would be deactivated until his demands were met, and also until the final payment, not technically due until the probe reached Earth orbit, had been paid.

Damon did not blink but NASA *did* and the space and weight were allowed.

That package was uplinking to the *Space Queen* super station a steady stream of information and parameters for just about everything other than the first stage of the three-stage rocket that ran into the thousands of lines of data per hour.

A team of engineers at Enterprises was studying everything and even suggesting small changes to be made remotely in order that everything work as planned.

There were tiny issues aplenty in all parts of the rocket with the exception of the Swift-made delivery stage. And, the actual probe. Both were in fine shape, and Tom secretly believe it was because neither part had been made by a disassociated group of multiple companies all providing the lowest bids and then creating their various components “in the dark” from one another.

It was a sad truth that NASA had never really learned the lesson that saving a little money generally meant spending much more to make things work.

Even a Jupiter probe his father had once agreed to be one of a series of contractors—and that saw each of the other contractor companies leaving the project until it was just Damon Swift and Swift Enterprises—had seemingly not made them see the inherent problems in the way they did things. Space things. Such as big, fiery, multi-stage mega-rockets.

Damon’s solution did not have a big, fuel-burning rocket; it was totally repelatron based and came in millions of dollars under budget.

Now, it was officially T-minus fifty-eight minutes and the Enterprises people were scrambling to force feed a small programming change into the second stage that would allow it to free the delivery stage at precisely the correct second in the flight. The problem in the original programming, just discovered, had the release take place a full minute early while stage number two was still under its last fifty-seconds of full power. It would have caused a disaster.

If it were to be discovered that Damon had authorized the change and the mission still went haywire, there would be hell to pay. But, the likelihood of it now going off without a hitch was



much higher than before.

At T-minus eleven minutes, twenty-six seconds the team leader in Enterprises' control room turned to Damon and gave him a smiling thumbs up.

No words needed to be exchanged. Damon nodded, gave an encouraging smile and turned to the very large monitor on the wall in front of the room.

*"This is mission control. We are at T-minus three minutes and going into a planned hold. This is to check the liquid fuel state within the first two stages and to top off anything that evaporated and needed to be bled off. We should resume within five minutes."*

The door opened and Tom and Bud came in to stand with Damon. Seeing the countdown stopped, Tom asked out the side of his mouth, "Planned or problem?"

"Planned. I have never been able to get a good answer from anyone down there why they just don't build this time into the count, but that's my old employer for you!"

Bud was going to say something about it being a heck of a way to run a railroad, an old reference his grandfather used to say, but he kept his mouth shut. He'd tell Tom how controlled he'd been... later.

*"And, this is mission control. The tanks have been topped up and we are resuming the countdown in about ten-seconds. At this time the final data checks are coming in and... wait... one of the status technicians is holding up his hand... this might cause an unscheduled delay..."*

Damon rolled his eyes as he saw the station label was "Stage Two" and the man was staring intently at his screen.

Then, to everyone's relief, he pulled his hand down, turned and called out something and the countdown continued.

"What was that about?" Bud asked.

Damon only said it was just someone seeing a little data bit not expected but it had obviously cleared. Inside, he was feeling his gut unclench.

*"We are at T-minus thirty seconds. From this point all guidance is going internal, the fueling lines and ports are locked off, and electrical has just switched. T-Minus fifteen... Coming on to T-minus ten... nine... eight... seven... six... five... four... first stage ignited... one... and launch!"*

An audience of about a billion around the world was holding their collective breath as the flames shot down and then out to the side and away from the rocket, and it slowly, almost painfully, rose until you could see space under it.

Up and up it went, but inside the Enterprise control room all eyes were on their status screens watching for any deviation from what was expected to be coming through.

In a clear voice, at the thirty-second mark, Damon stated, “I want any issues flagged now. Anything?”

A chorus of “No” answers came from the seven stations.

It was still that way when the first stage shut down, disconnected and began its slowing down and fall back to the ocean where it would be damaged beyond repair, but recovered as per United Nations dictate.

Stage two got the probe into low Earth orbit where it would remain for three spins around the globe during which all final checks would be made before Damon would be given the okay to send the probe toward Venus.

Separation between stage two and its payload went off without a hitch!

Half an hour later Tom and Bud sat down in the company cafeteria with their lunches. “So, you were telling me about the letter your mom sent,” the inventor reminded his friend.

“Right. Well, grandma is doing well even with her mind now forgetting most things that happened between twenty years and five minutes ago. But, the old girl is happy. The only sad family news is my great aunt; a nun by avocation until she decided to leave her order and become an ex-nun has passed away. So, she’s now a late ex-nun,” he said with a mischievous grin.

Arv Hanson was just coming to sit with them and caught only the final few words.

“Okay,” he said sitting down, “what the heck is a latex nun?”

Arv gave him a smile letting the flyer know he understood the joke but was willing to hear it out.

“Well, she had this little fetish—”

“And that will be enough of that!” Tom told him shaking his head.

The three men ate their lunches all the while talking about the

morning's NASA launch, one that had been boosted successfully off the Earth and was only waiting for the go-ahead to send it into a very fast trajectory to intersect the Planet Venus as its orbital point neared that of the Earth.

"This is the rocket your dad worked on. Right?" Arv asked Tom.

"No, he just had responsibility for the specialty repelatron drive unit and systems going inside some other company's shell to get it to Venus in a matter of twelve weeks and not the usual yearlong or greater slow trip. He tells me the second stage of the rocket will fire retro rockets in about two hours and then be slowed enough that by tomorrow it will enter the atmosphere, slow down to a point to not burn up, and parachute to a landing out in the California desert."

Bud raised an eyebrow. "Landing the stage? I know other individual companies land their first stages back on the ground or in the ocean on special ships, but nothing coming down from orbit. Start of something big and happy, or just a freak one-off because they were ordered to?"

"I don't know. I do know we are about the only company the UN didn't haul in for a, 'You need to change your evil ways.' meeting last year. They tried that a few years back but we were already converting all supply rockets to repelatrons at that time, and had our underwater launch system when we used Loonau that cut down on fuel and pollution by sixty percent."

The three ate in relative silence—other than the nearly eight-hundred employees also having their lunches and conversations—for five minutes before Arv had a question.

"Isn't this whole probe project a really fast-tracked one? Or, was this started in secret a long time ago?"

Tom pursed his lips in thought. "Honestly, I think it was the former. We've heard squeaks and squawks our NASA friends were under some pressure to get the launch off this year or face repercussions from the folks who dole out the dollars. I know our schedule was almost impractically short. But, that's a guess because I really do not know. All I do know is the delivery stage will detach from the probe and then do a sun dive to keep the repelatrons from being recovered by *others*."

"Different subject. How goes the drilling project Hank is managing?"

Leaning forward and in a whisper Tom told them both about the discovery of oil but reminded them it was absolutely a secret

even within the company.

When he stated the potential for just under a billion dollars worth of oil to be found, both men's eyes went wide with surprise.

"Jetz!" Bud almost gasped.

"Double that for me," Arv responded to the news.

Tom added that a fast experiment he'd made in the first of the water drills, the one inside Enterprises' walls, with his foam product had produced better-than-hoped results.

"The foam expanded a little more than I figured it might, and the second well Hank put down a hundred feet away, sprayed about five-hundred gallons of water between the holes and then into the air. Nobody saw a thing as we did it at night last week and lots of the water seeped back into the ground or spread out before the sun came up." Tom smiled. Both his companions knew that smile; it was one of satisfaction and happiness.

Arv complained, lightly, "Hank hasn't told me a thing about that!"

"And, he isn't supposed to," Tom replied. "That's a great thing about secrecy when it works. Others do not find out that information. Sorry, Arv, and you, too, Bud, but we can't have any of this leaking out."

"Absolutely," stated Bud.

"Obviously," Arv added.

Tom changed the subject again to talk about how he was looking forward to making a few more flights in the little jet he and Bud delivered the final changes for weeks earlier.

Bud grinned and nodded his agreement. "At least on paper she is a fast and well designed little girl," he said. "Almost without a fault."

"Well then, I'm having Slim Davis bring her over here from the Construction Company tomorrow morning. Jake and his people have outfitted her with a pair of wingtip fuel tanks and that brings her range up to nearly two-thousand miles. I was thinking of a flight out to, oh... perhaps Dallas-Fort Worth, a little refuel and then back here."

"I'm up for it, as long as we can be back before seven. Sandy has informed me that I am anxious to take her to dinner at the new Spanish restaurant tomorrow night and that I have evidently made reservations for seven! And, get this, I understand I am

going to love the Paella Valencia she had to order today for tomorrow evening. Yum!”

Arv and Tom laughed both knowing how determined Sandy Swift-Barclay could be and also knowing that Bud generally found it advisable to go along with her on whatever she'd made her mind up about. Doing otherwise meant hours of glares and not-so-subtle recriminations.

She never meant anything bad by it, but she was still, at the age of twenty-six, trying to completely grow up from her childhood and teen years of stamping and pouting when she did not get her way.

She was so much better and had been for at least three years, unselfish even, but there were times...

The two young men watched from the control tower the next morning at eight when the little jet, sleek and curiously shaped with a widening at the cockpit for the side-by-side seats, and a narrow “waist” behind that helped keep any sonic build-up from occurring when the jet surpassed the speed of sound, which it could to the tune of 850 miles per hour when at full throttle.

Slim taxied from the south-to-north short runway to the east of them and around the building cluster heading for the Barn where it would be checked and fully fueled. He'd only put a quarter tank in at the Construction Company to get it to take-off speed fast enough to only use three-quarters of the available runway. At full fuel load with its wing tanks—especially if a second person were in the right seat—it would require just about the entire runway to lift off and get to at least ten feet, the absolute minimum necessary to clear the eight-foot chain link fence surrounding the company.

Tom and Bud headed down in the elevator and walked quickly between several buildings arriving at the Barn about the time Slim was driving over the small fuel truck.

“Flies like a champ, as expected,” he commented hooking the fuel nozzle to the locking port on the top of the right wing. The fuel would flow between that side tank and through a pipe to also fill the other side. The wing tanks would need to be filled separately although their fuel would flow into the larger tanks thanks to a pair of air intake “pitot tubes” that would cause air pressure to push the fuel out.

While Slim attended to the main tanks, Bud pulled out the smaller hose with its automotive-style nozzle and began to fill the

right tank. It would be necessary, once Slim was finished, to move the truck over to the other side because even with its relatively short wingspan, the hose was about three feet too short to stretch.

Tom walked around the entire plane checking everything from flaps, rudder and elevators all of which moved freely since there was no electricity going to their actuators. He checked all three tires for any wear or marks indicating they had contacted anything other than smooth asphalt or concrete, and pulled out a small pressure probe which he placed over the top of each of the special no-leak caps. All tire pressure checked out so he put the device back into his shirt pocket.

“As soon as you two get her gassed, we can head out,” he told the others.

“Three minutes on the main tanks and then I’ll pull her over so Bud can get that other wing tank filled.”

Tom marveled at the sleek appearance of the tanks, made so via computer analysis and design of what would not impede the speed of the jet. They even featured small wing tipletttes for stability.

As they reached cruising altitude of thirty-three-thousand feet, Bud asked Tom if he’d heard anything more about the ship and sub they’d spotted.

“The last I heard, skipper, was about the ship being grounded and blown part way open. Anything new?”

“Nothing directly, but Senator Quintana has asked Dad and me to come to Washington tomorrow to a debriefing. Normally I don’t put a lot of stock in some words, but *debriefing* sounds like the end of the matter, as in a, ‘You can’t be told what this is about, so tell us what you know, turn over any files/photos/etc. and forget it!’ sort of thing.”

Bud made a tutting noise. “I don’t like that possibility at all, Tom. Not a bit. We both know we saw something really, really suspicious and the Coast Guard woman’s reaction was even more shady. If all you hear is no more can be said, I hope your senator friend can give you more—on the *why* end of things because—”

They both heard something like a bang or a thump coming from the right wing as if they had been hit by something else flying at their altitude.

A moment later Bud reported there was no difference in the controls, and Tom had made a visual inspection from his side seeing nothing.

“I guess we fly on, but keep a watch on anything not feeling right, flyboy.”

Bud snorted. “Do I ever *not* pay attention?”

They flew along for another hour passing over the northwest corner of Pennsylvania, through Ohio and into the lower part of Indiana. Ahead was nothing but clouds at many altitudes.

The little jet bucked a bit as they entered the storm cloud formation. Normally a pilot might try to go around, above or under such clouds, but as this was still an aircraft in test Tom told Bud to go straight through.

“We might as well find out how she flies inside one of those,” he stated.

As the jet zipped inside the first cloud, Bud pulled the throttle back a little. Previous experience had told him near supersonic flight though thick storm clouds was not the best thing to do.

The jet juddered and took a fast upward jump before settling down and flying mostly straight ahead.

All did not seem to be well with the controls a moment later when his slight right stick movement did not result in the jet moving off its present course. In fact, neither did a left input work, nor an attempt to go nose down a bit.

“Skipper,” he began to say, but Tom cut him off.

“Yeah, I noticed. Let me give a try on this side in case it’s your joystick.”

He took hold of his and pressed the button to switch control from the left seat to the right. A few little movements resulted in no movements, and he was shaking his head.

“Nope! Nothing from this side either. Check all the circuit breakers, please.” As Bud did that Tom kept trying different combinations of joystick and pedals. Nothing appeared to be working.

What was even worse was when he glanced at the fuel state on the wrap-around color monitor that functioned as the instrument panel. It was reading just about ninety percent down. As in about empty.

He pointed it out to Bud who could only gulp and say, “Oops!”





## CHAPTER 5 /

### “AND, OVER SHE WENT!”

TOM AND Bud struggled with the control joysticks. As a fly-by-wire aircraft it was pretty much a useless gesture as there were no cables to be manually pulled around.

The check and resetting of the breakers had accomplished nothing other than to cause the fuel state indicator to jump up about ten percent. Neither pilot wanted to rely on that and so Tom pulled the throttle back even more, causing the jet to slow enough to begin to lose some altitude.

It took five minutes to get below the storm clouds but once they were out Tom asked Bud to check to the left while he stared out at the right side.

“Okay,” the inventor finally said, “I’ve spotted a problem. Whatever that thunk was we heard, it seems to have resulted in the detachment of the starboard external tank and the outer aileron on that side when we hit the storm clouds. That probably took out some of the circuitry and the jet is responding by shutting off all the rest of the controls. Not good, but not fatal unless the rest of the wing falls off.”

While Bud took the controls—even non-functional it gave him access to the control panel inputs—he dropped their speed even further down to about three-hundred knots. The jet continued its downward path luckily remaining about straight and level.

Tom had unfastened his harness and ponderously turned around in his seat until his head was pressed at an odd and likely uncomfortable angle against the canopy. He reached to his now left side and pulled the seat release causing the back to come forward. That gave him access to the computer controls as well as letting him lean forward—backwards as the jet was concerned—which let his head straighten.

“Give... me... just a... second...” he grunted as he reached down and to the back finally locating the switch he sought.

“Hey!” Bud shouted. “I’ve got a little control. What did you do?”

“Secondary computer and control wiring for the jet,” Tom answered getting himself back around and the seat leaned back into position. “Give me a second and I’ll find the closest field. We might be flyable but we still need to put down.”

A moment later he suggested a right turn of about three-hundred degrees because it would be easier with the right-side missing a control surface.

“We’re heading for Louisville, Kentucky in case you are curious. Let me send out a Mayday.”

He put his headset back on and keyed the microphone.

“Louisville control this is Swift Two Experimental. We need to declare a Mayday. We have lost our starboard aileron and wingtip. Unsure why it is gone but we have minimal controls and seem to be capable of a landing at your field.”

*“Roger, Swift Two Experimental. Understand your declared Mayday and I can offer you your choice of runways. We have a 1-7 left and a 1-7 right. Right is the longest. Unless you have to, do not attempt our 1-4. Too short. What is your IFF?”*

“Thanks, Louisville. Squawking Romeo-Tango-Nine-Seven. Do you have us? We are currently in final turn over south central Indiana, I believe over Scottsburg?”

*“We have you and concur with your position. Come around to a heading of one-eight-five to line up with our 1-7s. Call if you cannot perform this. Otherwise, call at five-minute intervals with status unless it degrades. At ten miles out come to one-seven-zero and line up for landing. We are preparing the field for a rough landing.”*

“Roger, and thanks. We’ll take any runway that will not paralyze your facility. We are a two-man jet with a two-thousand foot max landing and rollout.”

*“Understand, Swift Two. Please take 1-7 left then. We’ll roll equipment over there.”*

Tom called in as requested until they were thirty miles out and had come down to five thousand feet.

There was no need to dump excess fuel as they evidently had only about half the JP-5 fuel in the left wing tank to draw from. Fortunately, the fuel system could isolate the right side so there would be no additional fuel loss.

The controller was calm, as was Bud, and soon they were passing the Audubon Golf Course and park with barely a half-mile to go.

Tom pressed the landing gear control and was rewarded by the double thump of the doors opening and the gear locking in place three seconds later.

“Gear green,” he announced. Bud nodded but did not take his eyes off the approaching field. At eighty feet they crossed to the west of the intersection of two freeways and continued forward and down.

Bud set the stricken jet down as if there was nothing the matter and reversed the throttle causing the thrust reverser panels on both sides of the single engine to swing out and slow them quickly. At the second exit, a flagman was waving them to turn left into what was obviously the Air Reserve part of the airport.

Bud and Tom both gave thumbs up and the little jet turned before another man signaled them to cut the engine.

A half-minute later silence reigned in the cockpit and Tom pressed the OPEN switch. The air seals deflated and the locks undid themselves and the canopy rose.

“Any injuries?” their control man called out.

“None. Just the aircraft.”

The man let out a relieved chuckle. “Yeah, that’s kinda obvious.” He was looking at their right wing, or what was left of it.

The rescue and fire fighting trucks surrounded them a few seconds later and a happy crash chief came over to speak to them.

“Damn glad to not have to scrape you off the field. I take it that,” and he pointed at the torn right wingtip, “is the issue?”

Eighty minutes later the *Sky Queen* came in for a vertical landing at the far end of the parking pad. Tom and Bud had been in having coffee with the base commander and the crash chief filling out the reports for the FAA when Red Jones and Slim Davis walked in.

“Taxi service for Swift and Barclay? Heading some place in the northeast sticks called Shopton?”

Tom made the introductions and all the men shook hands.

Bud grinned. “We didn’t make a nasty stain on their nice airfield so we get to go home without having to pay for the cleanup services!”

Three technicians who had come in with the giant jet busied themselves in siphoning off the four remaining gallons of fuel and removing the wings so the jet could be rolled into the hangar at the rear of the aircraft.

Fifty minutes later and with many thanks for the help, the *Queen* took off heading for home.

Tom spent the flight in the pressurized hangar trying to spot what had gone wrong. He found it with nineteen minutes to go until he had to go strap in for their landing.

“The right wing took what appears to be a very small missile hit,” he reported to the pilots. “Only penetrated a couple inches under the wing and very close to the add-on tank, but the buffeting we took in the clouds did the rest. No sign of the actual thing that hit us except for some paint and metal scrapings. Those go to Harlan Ames and then the FBI.”

Tom and Damon went to Washington for their meeting the following day, coming home with both some information and a bit of frustration.

“I can’t tell you how angry I am about this,” Peter Quintana told them after they sat down and the office door was shut.

Tom put his index finger against his lips and took out a small device Harlan had asked him to take and use after a Secret Service friend had mentioned a bugging problem in the Senate office buildings. He turned it on and a triple circle of tiny LEDs came on then went out. He held down a button on the side and slowly swept it around the room. As he pointed it at the Senator’s large mahogany desk the outer ring lit then the center ring and finally the inner ring.

He held it pointing at the desk until most of the LEDs extinguished leaving a single line pointing to the left side of the desk. They turned red.

He rose and walked slowly to the desk moving the detector a little and it continued to point at a stack of books and a green-shaded table lamp. Walking around the side of the desk, the lights moved around but remained pointing to the same place.

Peter and Damon were now standing next to him as he moved the device forward until it was next to the lamp. The lights remained steady but shifted a little. He then pointed to the books and the lights blinked furiously. Tom turned the device off and put it in his pocket.

One by one he opened the books rifling through the pages. The next to bottom book seemed fine inside, but the spine bulged a little. Tom took the book to a side table and fished out the device again. As he pointed it right at the spine, it pointed with blinking red lights, right at the bulge.

Peter was livid but held his tongue until Tom took out a

pocketknife, slit open the spine and a bugging device fell out into his hand.

He opened the back of the detector revealing a small, empty compartment, slipped the bug inside and put it away.

A final sweep showed nothing else.

“Okay.” They all breathed a little more. “It is no longer able to hear or send anything out.”

Peter Quintana was still very angry. “I will personally kill that son of a—” He stopped and composed himself. “I know who gave me that book and he is about to go directly to jail.”

He made a call, told whoever answered a name and hung up.

They sat again and he began by telling them that he’d been ordered by a very high authority that the mystery ship was not to be discussed at any point in the future. “The person giving me that book is a senior Coast Guard man.” He told them he’d have the man’s resignation.

“Before I go mum, which I no longer feel compelled to be, let me tell you that ship was a surveillance ship operated by the CIA. The submarine is also an agency-operated vessel, and they had completed their final mission. Both of them were previously decommissioned and believed to have been dismantled. I have no idea what any of their missions have been, but I can tell you that oily spill you saw was fuel oil being offloaded into a bladder hanging under that sub. They did not want a spill when they blew the ship apart.” He shrugged. “I know it is unsatisfactory, but that is all I could be told. Sorry.”

He looked genuinely remorseful over the situation.

They left him contemplating revenge on whoever bugged his office and headed home.

Two weeks later the two young friends made their flight to Dallas in the recently re-winged small jet. It performed beautifully and without incident.

The FBI had only turned up evidence that whatever it had been had not been built with an exotic shell—such as carbon fiber—but was made of aluminum and had not contained any explosives.

“For all we know it might have been hobbyist launching a rocket they should not have done without FAA approvals and a clearing of the area. We’ll keep looking.”

With a week to go before the Venus probe was due to go into orbit, the Director of Operations of NASA contacted Damon to ask him to come to Florida.

Unfortunately, the inventor had just suffered an attack of appendicitis and was in the hospital for at least two days. It was the cover story he'd been given while on a mission to test his new surface effect aircraft in the ocean off Norway.

Tom took the call and offered to come down himself if it were a matter of tight scheduling. He was assured that it was.

He and Bud took the small jet again, this time heading directly south.

They were cleared for landing at the Canaveral Air Force Station's small field and were picked up by a woman in an older American sedan.

"Sorry for the lack of glamor and pomp," she told them, "but we are on some pretty strict cost cutting measures these days. This is my car and I was lucky to be given a voucher to get it washed this morning." She sounded slightly bitter.

When they were ushered into the outer office of the Director, the secretary stared openly at the fact there were not one older visitor but two young men standing in front of her.

"The Director has specifically asked for only Damon Swift to be here. Who are you two?" she demanded.

Tom stepped forward. "I am his son, Tom Swift. My father is in the hospital for a day or two after an operation. I know just about everything about our work on the Venus probe, which I believe must be the reason for this summons, and this is my copilot for the trip down to meet with your Director, Bud Barclay. The Director takes the two of us or gets nothing for a couple days perhaps up to three days. I am sorry, but that was supposedly made clear yesterday afternoon when the call came through to our office."

She shook her head and walked around her desk, pausing to knock on a door before entering and closing it behind her. When she came out thirty seconds later her demeanor had drastically changed.

"I am so sorry, Mr. Swift and Mr. Bartly. The Director assures me he is expecting you." She pointed to the office door.

As they stepped past her, Bud muttered, "It's Barclay, by the way."

He heard no reply as the door was pulled closed behind them.

The Director, Anthony Williams, greeted them warmly and showed them to a four-chair conversation area.

“I suppose the rather cryptic message to your father—and I hope for him a speedy recovery by the way—told you very little about the nature of this meeting. I do thank you for stepping in for him because timing is a very important factor just now.”

“Dad said to say he is sorry his appendix decided at really the wrong time to get ready to rupture. I believe I can answer any questions you may have especially if it has to do with the drive device for the delivery stage. It is based on one of my designs.”

Williams smiled and shook his head. “Not really, or not fully. We are concerned that everything is in tip-top working condition and toward that we have received data from the on-board computers that something has been changed. We cannot determine what it might be, but it is worrying to all of us. Might I show you the data?”

Tom agreed it would be the logical thing to do.

When the binder filled with the printout was set before him, all ninety pages, Tom chuckled.

“I don’t suppose you have this electronically so I can do a search and find on specific things,” he asked.

The Director shook his head. “No, I’m sorry, but in this office we are still a paper-pushing organization.”

Bud knew it was not his place to speak, but he did anyway. “How in the world can you expect to not have massive problems that go undetected when it would take a team of ten people two hours to go through all that? By the time anyone spotted an issue, it could be too late!”

Rather than disapprove of the question, Tom turned to the Director. “Bud has a very good point. I’m not certain I can spot anything in all this,” and he rattled the fan-fold pages, “in anything under a full day. Can you tell me what I am supposed to be looking for?”

“That is the problem. My data analysts say there is something wrong... something they did not program into the computers and it both puzzles them as well as alarms me. In the past we have not been immune to the occasional attempts at sabotage.”

Tom had a slightly exasperated look on his face when he asked, “Did your analysts give you any hints that might help me?”

“Not really except to say it is ‘In the printouts.’ So, I guess we need to speak to someone over there and see if any light might be shed.” He went back to his desk, paged his secretary and told her the name of the person he wanted on the phone.

When it buzzed him three minutes later he put the call on the speaker.

“Director Williams. Is this Alison McCallister?”

“Yes, sir, it is. What can I do for you?”

He explained the issue with the massive amount of printouts and the need to get straight to the matter. “What is it, specifically, you folks spotted that gives you a headache?”

“Do you have the printout package we sent over?” He acknowledged he did and also mentioned the presence of Tom and Bud.

Tom came over and spoke to her. “This is Tom. I realize this is your world, but I deal with digital data and strings of it I can do a computer search through. I need to know the source of your concern and the approximate page or pages I might find that on in the stack of pages.”

“Oh.” She seemed both a bit disappointed and also perhaps a little jealous. “Well, it has to do with things between pages nineteen and twenty-two. Specifically as it pertains to separation of the probe and the rather science fiction delivery stage you folks built. Frankly, nobody here understand the thing and we don’t generally trust what we don’t understand.”

“I thank you for your candor,” the inventor told her. “Now, as I am leafing through the printout I am afraid I see no actual page numbers. Forgive me while I do a manual page count.”

He did and found the first of the pages she’d mentioned. Within a minute he spotted the last-minute changes his father had authorized. He laughed.

“Mr. Swift, I assure you this is no laughing matter!” she protested.

“No, it certainly is not. Do you have a printout of the original programming?” When she said she did, he asked her to turn to page twenty. “Starting fifteen lines from the top and going down about thirty-six more lines, even onto the top three lines of the next page, you will see the programming for the release and separation of the delivery stage from the second stage. You folks had that happening while stage two was still under full power.



That, by the way, would have doomed the entire project by powering stage two up and into the delivery stage before it had a chance to move off.”

He gave her a minute to look at the code. She let out an exasperated sigh. “You are, of course, correct, Mr. Swift. I am guessing that rather than try to convince NASA of the problem you just went ahead and fixed it?”

“Well, my father was one of the people raising the issues of bad programming for the second round of space shuttles. He had told me if the subject ever comes up to mention the Swift Protocols.”

After she hung up the Director looked very embarrassed. “We have not learned in all these years to listen to the Swifts!”

One week later Tom and Bud were sitting in the big office having lunch. On the telejector’s floating image was a picture of the Venus probe. It had been on the surface for about two hours and was still going through self-checks before it began transmitting data.

“You know, I had a model kit I got from my grandfather when I was young that looked a lot like that.” He pointed at the multi-ball probe in the photograph.

Damon, who had come in for his first day back at work after a very successful test of his aircraft looked at the flyer and smiled. “Yeah. Not a lot of people recognize that, but it was a design NASA came up with for the very first Moon lander. Capsule up on top for the crew of up to five and fuel and oxidizer tanks underneath. Not much different from what they eventually built, just more open.”

“But, the original lander was taller by at least three times,” Bud stated. “Just tall enough to be tipped over if they landed on really uneven ground, I guess. It would be a fine thing if this Venus probe landed cockeyed and fell over.” He immediately regretted what he’s just said, but the older inventor was only shrugging.

“NASA honestly thinks, and even the wind tunnel tests I’ve seen showed, that the open nature of the structure can handle the sort of winds we know to blow around up there. In this case, tests seem to have been right because the probe landed and sent back the appropriate signals. NASA sent back the commands to get things working only to have the first test pictures coming back just as planned. After that—”

The phone beeped and Trent announced the caller was the Director of Operations at NASA.

“He asked for your father first or you if he wasn’t available. I suppose you both are. Line two.”

Damon shook his head and headed to the door. “I really don’t have the energy to speak with that man right now. Sorry, but you can handle this, I’m sure.” He opened the door but did not fully depart.

“This is Tom Swift,” the inventor answered. “Sorry but my father isn’t here. What might I do for you, sir?”

“You know, I think I might have secretly wanted to speak with you anyway, Tom, given your recent trip down here. We have a very bad situation here. You’ve, of course, heard that our Venus probe finally set down this morning?”

Tom acknowledged he knew of it now being on the planet.

“Well, we believe we did everything possible to ensure its success. And, at nine-point-nine billion dollars—and that figure is not for any public discussion or release—we have a lot riding on it doing what it is supposed to do. But, there has been an... ummm, incident.”

“Such as what, sir?”

“As in the probe’s telemetry was showing it landed on a spot that was a little rough but the four support legs, each capable of raising or lowering fifteen inches to maintain balance, seemed to be able to handle that. What they could not handle was something like perhaps a storm and gust of air that slammed into one side and *over it went*. The entire thing is now lying on its side in a position that makes it utterly useless!”

## CHAPTER 6 /

### THE REQUEST

TOM SAT forward as if being closer to the phone's speaker would make things more clear. "Uh, isn't there any sort of self-righting device or mechanics? Some way to account for an unexpected event such as this one?"

The Director paused a few moments before answering. "Bottom line... no. There are just the self-leveling extensions on the legs, but they were of no help. We had a launch window this year and another one in three years. We weren't completely ready for the early one as in we had no time to design, build and install any sort of self-righting stuff. I'm afraid we were forced into the early launch by a few shortsighted people in the U.S. Senate who threatened to cut financing if we didn't get it 'in the air' during this window. I'm just sick about this."

Tom had heard that the Swift's favorite Senator, Peter Quintana of New Mexico, had been outvoted by a group of other politicians from "across the aisle," in other words, the other political party. His comments at the time were along the lines of, "Narrow-minded, short-sighted, jittery nerved, overly-cautious morons and nincompoops!" He had specifically told Damon Swift that same group were trying to push to remove the majority of NASA's funding and to channel it to a couple public assistance programs that would not help even a quarter of the people they claimed would benefit.

"Are the probe's attitude landing rockets strong enough to do anything?"

"Not really. Only good for small corrections once the probe took a look at the landing area."

"I'm not sure what you might want from us, Mr. Williams. We are not outfitted for house calls to fix errant planetary probes. The occasional Earth orbiting satellite but that is about the extent of it."

Director Williams sighed. Over the phone line it sounded full of exhaustion and resignation.

"With your company's well-deserved fame for coming up with elegant and fast solutions, I was hoping you might take on a project to create a rescue drone or something."

“I see. Dad would tell you that flattery gets you just about nowhere with the Swifts, sir. But, I’ll tell you what I can do and am willing to for free. I will look into what might be done, assuming the appropriate funding and a reasonable schedule are to be found. It is about all I can offer today.”

“I’ll take it, Tom. Anything, even if it is to say the whole thing is impossible. I am going to tell you this is a make or break project for NASA funding. If this is ultimately a failure then the space agency may need to close its doors. That is not meant to pressure you, just to state a possible fact.”

As the conversation was ending, Damon walked back in. Since Tom had placed the call on the speaker so he could stand up and move around, the older inventor heard everything. When Tom looked up before saying goodbye, Damon shook his head. So, Tom ended the call.

“How much did you hear?”

“Everything. I received a heads-up from Peter Quintana an hour ago about the probe so I knew the Director’s request for help must have something to do with that. I really do not wish to do another NASA project and Peter tells me they have just about zero funding, as in a couple million at best. Perhaps four.”

“So, my offer to at least look into things should have been a no?”

“Not necessarily, but I do not want you spending any company money on this without something coming in. Personal research is fine, but I can’t let you go out on a limb over this. Peter told me there was precious little enthusiasm for funding yet another in the series of failures NASA has encountered this past decade. What with the Jupiter probe we had to take on all on our own to the failed solar probe that burned up before it got much past the orbit of Mercury and all because some boneheaded worker forgot to cover one of the access hatches in the heat resistant coating!”

That last one had been a monumental failure. The probe designed to study the sun with an eye toward forecasting solar flares had been a four-nation effort with at least eighty different companies taking part. A French company, responsible for adding a special thermal measurement package to one side of the probe had been hit by a strike the day after it was inserted, and nobody ever checked that the special heat sealant had been applied before they shipped the nearly complete probe to Florida.

There, another failure occurred when the team meant to check

for any and all deficiencies, missed that problem. Which was odd as the sealant had a different color—light gray—to the basic white of the probe’s body shell.

“Well, I will take a look at what we can do without building anything, and I’ll give you an estimate on anything other than my research.”

Damon told his son that was fair enough.

It only took Tom about three days to realize there was just not sufficient information about the probe, its position, condition and orientation to make any even wild guess at what was required.

He and Damon sat in the conversation area of the office going over his lack of ideas.

“I see two things as possibilities. First, there is the current orbiting Venus probe you built five years ago. It has been deactivated for a few years now, but could it still have enough power in its batteries to give us at least one orbit of photos. Anything where it passes over the landing area and gives us a little look at what might be down there?”

His father was shaking his head, slowly, but it wasn’t the sort of shake that spelled out a total negative.

“I’m not sure, Son. To my memory, the probe was put in terminal stand-by something like thirty-four months ago because the solar panels had degraded due to a bunch of solar material that passed through that part of Venus’ orbit and tore holes in them. That, however, does not speak of the nuclear battery we were forced to use when that horrible California Representative, Prudence or Gertrude Rabinowitz hyphen something, threatened to cut funding unless a company from her state was given the contract for that battery.”

They both knew the nuclear battery mentioned had two pounds of highly radioactive Cesium that was meant to decay, bombarding a set of receptor plates inside that generated electricity.

A Swift Solar Battery had been specified by Damon as it could recharge under a sealed glass dome without the need for solar panels to augment the other battery, would be much safer in case of an accident, and would outlast that other one by a factor of about three times! Politics had their way and Damon’s battery solution was cut.

The woman from California was soundly defeated in the next election making her the second one from that state to try to make things difficult or impossible for the Swifts to be so relieved of their political positions by a very dissatisfied *voting* public.

The next morning a small passenger military jet—an Air Force marked Gulfstream—asked for landing permission.

*“I have one VIP who states for Mr. Swift, ‘Hey. It’s Peter Q. Let me in or I’ll huff and puff, etc.’ Got that Swift Control?”*

“Got it and you have permission to land on our runway 0-1 Long from the south. Taxi info to be available on touch down.”

He made a fast call to the big office and told Trent to let Damon know who was coming.

“He’ll be out there at the appropriate time. When do they arrive?”

“Thirty-three minutes.”

Damon was there with a car. Peter Quintana stepped out of the aircraft and down the stairs preceded by a young male Sergeant in an Air Force uniform who saluted him with crisp precision.

The senator shook his head. “Breaking in a new one,” he told the inventor as they shook hands. “What with you walking Alexia Murdock—sorry, the soon to be Alexia *Davison*—down the aisle in a couple months, and her leaving the service last week to be a wife and I hear she hopes to be a mother as soon as possible... I’ve had to get Sergeant Carter here used to my style of traveling.” He turned and made a head-to-toe gesture. “Still haven’t talked him into traveling in comfort. At east, Sergeant. You and the pilots head into that pretty terminal building and avail yourselves of snacks and beverages and don’t try to climb up onto the shiny GPS satellite hanging from the ceiling!”

The Air Force man looked at the senator as if the politician were crazy. He was about to be a very shocked young man once he read the plaque hanging underneath the golden object.

Once the two men got to the office and were seated, Peter got to the point of his unannounced visit.

“I have three things for you. And, Tom if he’s around, but you’ll do. First, that little problem with Tom and Bud’s flight being interrupted over Kentucky— no, wait! Let me start again.

“The ship and sub Tom spotted and got that impressive video

of that I've already told you was a spy ship, or reconnaissance vessel as the CIA calls it, was exactly that. The Coast Guard went down where it was beached and blown open. Patched just enough below the waterline to tow it off the rocks and out into the so-called Bermuda Triangle where it mysteriously slipped their tow line and sank rapidly."

He made a face and shook his head.

"It had completed a special mission into the Arctic Ocean where a submersible carried under its belly went down and removed the Russian flag from where they'd dropped it a couple decades ago. In its place they planted a UN flag and a plaque stating that the entire continental area is the property of the free world and anyone trying to usurp it was subject to international reprisals."

Now, he shrugged. That, like the previous Russian gesture was just that, a gesture and a ridiculous one at that.

"I have the feeling they did a whole lot more than they claim, and those explosions were to designed to destroy secret equipment... but that is that. Unless Tom wants to mount his own secret mission to try to recover that ship I guess the matter rests under some twenty-nine hundred feet of icy gray water."

Damon chuckled. "He has the equipment to do just that, but to what end, Pete? As you say, better off left alone."

"Okay, this next one is not to be left alone. The Tom and Bud flight that got hit by something? The FBI labs examined the wing you shipped to them. There is certainly some paint and metal transfer, but it was not from any sort of flying object."

The concern that crossed the inventor's face was very grave.

"Yeah. So, they came up with the following. It was some sort of device attached to the underside of the wing in a place it likely would not be notice during a standard walk-around inspection. It was composed of a small aluminum cylinder of possibly nitrogen or carbon dioxide; they can't get a trace because of the extra miles of flying they did. Anyway, it had a small timer or altimeter, again they have no idea, that blew up the cylinder at a certain point. Pressure expanded and punched a hole in the wing. They cannot tell if it was meant to cripple the jet or bring it down, but they did say the boys were damned lucky."

Damon's head sunk to his chest and he tried to digest these new facts. He looked up.

“Who?”

Peter stood but made a “stay seated” motion to Damon.

“The aluminum alloy they tested from the cylinder was from an old Russian company that went out of business five years ago used for small heating units. Filled with butane. They were distributed all over Eastern Europe so it is impossible to know. Actually, I should have suggested we get Harlan in here. Call him and I’ll go back over this stuff.”

When the Security man entered and sat, Peter did recount everything. Harlan became angrier and angrier.

Finally, he grunted and stated, “I’m going to have to check all our employees over at the Construction Company and see who might have come in as a guest in the three weeks before that incident. God, but I hope it isn’t one of ours!”

What he meant was that in the past, several employees had either gone “bad” for reasons of money or anger or had been hired under false identities and had performed acts of sabotage and even attacks on employees... and Tom and Bud. Three employees had been killed over the years and each incident stuck in Harlan’s craw like an avocado pit under a pair of dentures.

He promised fast action and once again a tightening of the rules, especially if this was someone’s invited guest.

“There is a third thing that might not involve you, Harlan, but you are welcome to stay.”

“If I am not actually needed then I’d rather get on this sabotage and attempt on the boys’ lives thing.” He got up and stalked from the room.

“Okay, Pete. Tell me about this third thing.”

“Well, it is not a bad thing, just some words about the Venus probe. I’ll assume Tom is hot and heavy into seeing what he might do to fix things, but I have it on good authority my fellow Senators are about to vote on a bill limiting NASA from making any monetary promises to outside companies, and making a change in the way they do business. The lowest bidder means triple prices scenario is about to be a thing of the past.” He looked slyly at his host. “It means there may be more single or dual company projects that you can pick up, should you want to, and at least a push for changes in what they use to loft things like satellites and probes.”

“Meaning our repelatron?”



Peter Quintana nodded. “That and possibly recreating your underwater launch system off the coast of Florida. I understand at least two of the private companies have been doing environmental studies. We may vote to build a single multi-company use launcher and you have the expertise so it would naturally fall to you to design and/or help build it!”

At that moment, Tom entered the office. Rather than go back over things, Peter suggested that after he left Damon tell him the news, both good and bad.

“I will say one thing, Tom, and that is you and Bud may need to forget that, well, *recon* ship. It comes from the President down to me and then to you. Sleeping dogs and all that.”

With that and a refusal to stay for lunch, although he looked quite tempted for a few seconds, he left stating he would take one of the small electric runabouts back to his jet. As he carried a special TeleVoc pin that worked within the boundaries of the company, he could do that and not set off an alarm.

Damon told Tom about the plane mishap findings, a bit more about the final resting place of that ship, and the upcoming Senate vote that could prove to be financially beneficial for Enterprises.

“Oh. I hate the thought someone sabotaged that jet and I dislike, greatly, just having to forget the ship and that submarine and the oil spill they made, but I do like the idea that NASA will finally start to do business that costs less, gets them better products and allows us to bid for entire packages, not just little pieces!”

Damon wanted to change the subject. He’d been contemplating the other stuff too long that morning. “Tell me what I can do to try to get you access to the old Venus mapping satellite.”

“I want anything that will allow me to freely send maneuvering commands and receive data without folks prying into what I am doing and putting limitations. I might need to send it into a low orbit to get the pictures I need and that would spell the end of the thing as it would not have fuel or power to get back up.”

The older inventor sat at his desk and had Trent connect him with Director Williams. The call went through in two minutes.

After greetings were exchanged, Damon got to the point of the call.

“In order for us to study what is going on down on the surface of Venus, and to see the actual state of the probe, we need to gain

access to something.”

There was a pause, then a question, “What can you possibly need to see?”

“The probe? You *do* remember... the thing that your people dropped onto the surface where it fell over? We need to take a look at it to see if there is anything left to salvage or to set upright, that’s what.” He was more than slightly bothered by the Director’s inquiry.

“Oh. I see. Yes, I do see that. Well, how can we aid in that?”

Damon told him about needing full and unhindered access to the former Venus survey satellite and its range of high-definition cameras and sensors.

“Hmmm. I see. That will be impossible.” It was a blunt statement and the man did not seem to be willing to add to it.

Damon counted to ten. “Why is that? At the end of the satellite’s serviceable life you people put it into sleep mode. I know it still has ample fuel for maneuvers to keep it in a stable orbit for another three or more years. All we need is about one day of access so we can get a look at that probe of yours. What is the issue?” He was starting to get angry and it was coming out in his voice.

“The former Venus Mapping and Research Sat was, following a month of shut-down sent on a terminal dive to crash into the surface of the planet. It just *does not exist*.”

“*What?* What idiot ordered that? What lack of foresight decided that bone-headed move? You? Damn you anyway if it was you. It isn’t a wonder that NASA is considered more of a joke these days than a viable enterprise. What’s next? Well, we put a rover on Mars and it was supposed to last four months so at the end of that time we blew it up!”

Director Williams was a man feeling as if his world was caving in on him at the moment. He could barely breathe and could not respond, so Damon went on.

“Swift Enterprises does not wish to fly blithely out to that planet just so we can take a peek at what could have happened to your probe. Remember it? Your multi-*billion* dollar probe that you didn’t engineer for use on the surface of the planet it was set down onto? This is not a threat, *Director*, but Swift Enterprises is going to start taking away a lot of your business. We can do what you do for a quarter to a third what you spend, do it quicker, with greater

success and within the guidelines of pollution standards you have never seemed to want to try to come to grips with. Good-bye!”

His finger pressed the disconnect button and he sat back.

Tom, a little stunned at both the death of the former satellite and his father’s anger, looked over to Damon’s desk. To his surprise, his father was smiling.

“Did you already know about that satellite?” Tom asked.

With a nod, “Yes I did, although not the final crash thing. I had heard they sent it into a much lower orbit by more than fifty miles but the idea, according to my source at the time, was to fly it around the planet a couple times, pick up speed and then scoot back out into a safe oblong orbit.” He looked at Tom.

“What do we do now?”

“I don’t know. I do know that we need to have a good look at that probe and even our Megascop Space Probers at the old and new outposts are not going to be capable of giving us that since the probe was set down closer to the northern polar region than in any equatorial spot. That makes it just over the visual horizon. Nuts!”



## CHAPTER 7 /

### A FAST AND FRUITLESS TRIP

BUD, AND TOM'S father, decided that a reconnaissance trip to Venus was a good idea, but they both put their feet down when Tom said he was leading it.

"No, Son. I don't think Bashalli can take the separation right now. You stay home and learn what it is like to delegate responsibility. Even Bud is not going."

Tom looked from his best friend to his father and could see the resolve in their faces. He took a deep breath and let it out through his nose. His head sank a little and he nodded.

"Okay. I give on this one because it is just a go out and look trip. Right?"

Damon and Bud said, "Yes," at the same time.

Five days later Tom, Bashalli, and Bart—Mary stayed behind with grandma Swift—flew out to Fearing Island so she could see for herself that Tom was keeping his word to her; he was not going on this trip, not even up to the spot where the arrow-head-shaped ship, the *TranSpace Dart* stood on its tail fins ready to go into high orbit and retrieve the very small black hole parked at a Lagrange point where it could not and would not wander. It was the primary drive mechanism for the ship so it could travel up to the speed of light when desired.

He remained with his family and gave a briefing to the crew where they stood a mile from the great ship.

This trip would be short enough, in miles traveled, to only allow them to inch up to quarter light speed, but that would be sufficient to see them at Venus three days later.

"You are to go into orbit at one-hundred-eighty miles which puts you above anything that might be rough, but only after you have ascertained that in approaching that close the black hole will not detach nor will it drag you closer. If there is any doubt, orbit at two-hundred or more miles.

"The SuperSight has recently been upgraded so you will have even greater magnification to work with. Try to get as much video of the probe on the total of no more than six orbits you will make. No more even if you think that next one might be the keeper!

Understand?”

Red Jones, who would command the trip, nodded and looked at his five-man crew who also nodded.

With Red would be Slim Davis, Zimby Cox, Art Willessa, Dwayne Dimmock and their communications expert, Mike Jayson. Mike's wife had just had their second child and she was quite happy to have the overly attentive, and hovering, daddy going away for six or seven days.

“I understand the reasons, but I still think for this fast trip I ought to go,” the young inventor explained glancing at his wife and young son.

“And, just this once I am glad you've decided to listen to your old dad,” Damon told him as the crew walked to the waiting van to take them to the ship. “This is a fast flight by a great team that will remain there for less than a day before making certain they have the visuals we need and coming home. They take the *TransSpace Dart* to make the fast trip and will be back before you know it.”

Damon looked at Tom and could see his son was going to be reasonable about this.

“Besides, I have two small projects for you. One is to design some sort of unmanned drone to set down on Venus sometime in the future, assuming this little look see visit shows us a viable probe and not a pile of miscellaneous junk. I'm certain you will recall a little unmanned robot you build for your *Cosmotron Express*? The one capable of flying autonomously or controlled and can be used for snagging satellites? What did you or Bud call it?”

“The *Flying Crab*,” Tom said in an unenthusiastic tone.

“That's the one. So, why not dust off that basic design and see if it might be used to land, grab hold of and tilt the Venus probe back upright?”

Bashalli, sensing the discussion was a very important one and now fully believing Tom, stepped away taking Bart with her.

Tom thought about what his father was suggesting for a minute and could not actually see a reason something like that might not be used. After all, if the probe simply had tipped over a device similar to the *Crab* could possibly be used to pick the top end up and straighten the thing in a viable position.

On the other hand, if the probe was broken by its unexpected impact, the *Crab* might even take it into space where the *Dart* or

even the *Challenger* might be utilized to bring it back for refurbishment and then delivery it to where it was supposed to be.

Tom was seeing all sorts of intriguing possibilities and so his demeanor changed and he actually was smiling when he told his father he would look into that.

“What was the second thing?”

“It’s to do with the surface effect aircraft I’m completing. The test flight over was a success and they are going into production; I need a day or two of your programming to adapt the controls so they will never allow the craft to tilt too far over and cause an accident.”

“Gladly and before I tackle the *Crab*,” Tom offered.

The *Flying Crab*—actually its replacement the *Super Crab* as the first had been stolen along with the original *Cosmotron*—was currently hanging from the ceiling in the “museum” building to the south of the main building cluster at Enterprises. The *Cosmotron II* had not survived and was never rebuilt as Tom could not come up with a good enough reason for the expense.

But, as he let himself into the sealed and very heavily protected building, he smiled picturing the large flying “insect” the *Crab* resembled. And, there it was!

Above some of the glass storage cabinets, hanging within a few inches to the right of his *Cosmic Sailor*, his first foray into electronically tethered flight, was what he sought.

He walked to one of the nearby walls and found the control kiosk. There, and only after keying in a lengthy code and providing an iris scan of both eyes, he made a selection from the massive inventory and was rewarded when the *Crab* began to rise before it was threaded between about a dozen other air and space vehicle up there.

Tom lost sight of the thing a moment later but knew it would be deposited into the clean examination room at the east end of the building.

When he got there he could see it appeared to be in fairly good condition with only the faintest hint of dust from the incredibly clean room environment of the building.

Three days passed and Tom was sitting on a stool in the underground hangar where his *Sky Queen* was kept when not in

use. On a nine-point padded cradle sat the *Super Crab* now partially disassembled. He had been replacing much of the computer circuitry with newer, smaller and more powerful equipment.

It would also consume much less power leaving even more for the repelatron mini-dishes that would drive the *Crab* down into the atmosphere and, it was fervently hoped, allow it to hover and get some very good and very close photographs and to take some measurements of the Venusian surface conditions.

Then, and only then, would the decision be made to attempt a raising of the probe. Or, not.

Damon dropped by after lunch just missing Bud as the older inventor took the elevator while Bud decided to get some exercise and jog up the stairs.

“I thought I’d come see just how much money you might be spending when I told you to spend nothing,” he told his son with a grin telling Tom he was not totally serious about the costs.

“So far, everything is reclaimed and off the shelf,” Tom explained. “I may need to spend some money on another one or two coats of tomasite spray on, just to keep this from being ravaged too early by the heat and solar radiation, but now that we’ve cracked the cost thing, that will be under sixty bucks.”

It was true. Originally, tomasite—an exciting polymer Damon had come up with as a shield for his first nuclear reactor—had cost more than a million dollars to produce enough for a barely fifteen-foot orb only a couple inches thick. Since then, and because of its many, many uses, both the Swifts and a team of chemists and plastics experts had worked to cut the costs while strengthening it and even allowing for a liquid version that could be spray-coated on almost anything.

Damon nodded to his son. “Will we, and by that I mean the crew *not* including you or Bud, be bringing it back?”

With a hopeful nod, Tom said that was the plan.

His father sat down and watched while Tom pulled out a fairly large sensor package that had given the probe its “eyes” before and then picked up what appeared to be a variation, without case, of Tom’s Digital BigEyes, which were a portable version of his SuperSight optical and digital camera system. It slid partway in before Tom reached around it, found the cable, and shoved it into the socket until it *clicked* into place.

Damon was puzzled, so he said, “I thought we didn’t use that



old-style connector any longer. What is going on?”

Tom turned and smiled. “Well, I found a box of the connectors in storage over at the Construction Company, brought a few over, and then figured out how to use them on these newer cables. Fortunately, the types of signals have not varied that much, just the way it gets from a board into another one. It took a bit of soldering, a little guesswork, and in one case, I had to construct an interim connector adapter.”

“And, it works?”

“So far and fingers crossed it will continue to work in my favor.” He went on to say the overall *Crab* probe was going to need to not be autonomous, but controlled by a pilot inside the spaceship. “That will be Zimby as he has the most experience in remote controls as well as being a skilled spaceship pilot. Otherwise, I suggest asking Arv Hanson to go along.”

His father agreed to the double duty for the second youngest pilot in the team to be going to Venus. Dwayne would be younger by eight years but was not qualified for that extra work.

A week later and Tom sat down with his double-duty pilot and went over all the controls.

“It looks like sitting in the control seat of one of the newer seacopters,” Zimby commented with a grin. “I like it! It is a bit, uhh, fuzzy, though.”

The wrap-around monitor control station would be added to the upper living deck of the fast ship as there was absolutely no extra room up in the two-man (barely) command level.

“You will be wearing a special 3-D headset that will make the fuzz disappear and give you a sense of being right in the probe looking out a viewscreen. The only thing you will not have is vision more than about one-hundred-fifteen degrees ahead. Turn your head all you want and the images stop at that point left or right.”

“When do I get to experience that?”

“Tomorrow. I have a few hours of programming I want to complete and then you get a two day crash course on flying—and not *crashing*—the robot.”

Zimby asked for a briefing on the full extent of his flight or flights.

“It will be done in one trip because I can’t guarantee this comes back up. I want it to, so don’t get too risky or lax, but the idea is to

get down to the probe, hover all around it by anywhere from fifteen to one-hundred feet, move back up a few hundred feet for a three-sixty of the surrounding area, and get the best video possible of everything. I need to know the total condition of that probe *and* where it is sitting. If it can be put upright and is not too damaged, then I will suggest a further mission and a different robotic vehicle to use.”

Zimby looked like he had an important question. Tom never wanted to have questions go unanswered so he prodded his friend and pilot.

“Well... I was wondering why, if the *Crab* is supposed to have the ability to grab onto things, we can’t at least try to put the darned Venus probe upright?”

Tom took a deep breath while he tried to find the right words.

“While it might be nice to do this all in one go, there is a little matter of NASA not having any money to pay for our services. You and the others going there are on payroll and you get paid whether you sit here playing cards or go to Venus, so there is no added cost. The *Crab* is being reworked using a bunch of spare parts, and I am *donating* my time. But, if we pick it up, dust it off and all is well in the world, there is no incentive for NASA to do anything other than send us a thank you card and if we raise a stink they can claim they never told us to put it back on its feet!”

“They’re kind of jerks, huh?”

“They can be, but they are under enormous pressure to get that probe working. They may, after we share the pictures with them, ask us to go back, pick it up and bring it home. I don’t know. All I do know is it is now on its side in unknown condition and it will not be set upright on this mission.”

“Understood. Just wanted to verify you had an excellent reason and I was totally in the wrong here.”

Tom shook his head. “Not in the wrong, Zim, just not in the total loop of information.”

The next day they got together after lunch at which time Zimby donned the lightweight 3D goggles and sat down at the console. He had a pair of joysticks to use—one to his left and the other to his right. These he took a light hold on and at Tom’s signal began to use them, seeing what each did to the computer-generated version of the *Crab*.

There were more than a few differences in how it controlled over any other craft he’d experienced, but as a top pilot he caught

on in minutes rather than hours or days and was soon sending the computer *Crab* soaring around, up and down and all around an imaginary downed Venus probe.

Three hours later Tom declared him to be as close to an expert as was possible until the real thing was in use.

“You’ll have plenty of time in orbit to try flying the thing around and even doing a small pick up the parcel test. Not for the actual probe pick up thing, mind you, but for the fine control you’ll need to have in the whirlwind lower atmosphere of that very hot and nasty planet.”

Zimby turned to his young boss. “What if I’m not up to the task, skipper?”

Placing a reassuring hand on the pilot’s shoulder, Tom replied, “You are more than up to it, Zim. A little faith and a little more practice and you’ve got this made!”

The crew of the *TranSpace Dart* lifted off on Tuesday morning heading up to high Earth orbit and the pickup of the very small black hole they would take hold of using Tom’s Attractatron and keep at just the right distance to drag them forward while the repelatrions in the nose would force it away from them... dragging them forward only to be constantly shoved away.

It was, to many people’s surprise, a real thing and it worked!

Once connected by the combination Attractatron and repelatron at the nose of the great ship, the attitude rockets were used to swing the entire assemblage around so it could pass within about two-thousand miles of the Earth on its way to a rendezvous with the distant planet. As they passed the orbit of the Moon on the sun side, Red began the carefully balanced increase of their speed. Before they were a million miles from the Earth they were traveling at more than eight-hundred-thousand miles per hour and were accelerating.

It was just three days later they were slowing down so they could go into orbit around Venus. It had been decided to not release the black hole as this near to the sun it might be tempted to head that direction.

So, using it to keep the nose pointed in the forward direction, Zimby slipped into the 3D goggles and the special seat at the control station. With the flip of a switch he connected his station to the *Crab*, and then back to Earth where Tom was waiting in one of the video communication suites. It might be three in the

morning in Shopton, but the inventor wanted to see the video as it streamed live after traveling nearly 39,000,000 miles as the two planets were becoming farther from each other than their nearest passing about the time the probe first landed.

“I know this is three minutes ago, Tom, but I’ve released the magnetic clamps and the *Crab* is starting to drift off. I’ll give it a bit of downward power in four minutes after the final systems checks.”

Pictures of the large ship were coming through as Zimby had turned it to face the *Dart* for the video part of the checks. Fairly soon the images changed from standard video to very high-resolution still images being taken and transmitted at the rate of six images per second.

All too soon the *TransSpace Dart* was swinging over the horizon, and Zimby barely had time to set the *Crab* to just hover and wait for their next orbit. He made a brief report back to Enterprises as they picked up the *Crab* one-hundred minutes later.

“It headed down in the last orbit where I parked it at about fifty miles, and I’ve acquired it again; I’m taking it down but my guess is you can see that. Anyway, everything is being recorded so we can bring back anything you can’t catch back home or if we need to withdraw the *Crab* early.”

Down the *Crab* moved; all the time the planet, a brilliant combination of oranges, some reds and even yellows, spun lazily under it. Zimby tried to keep up a running commentary but soon apologized because he was having to spend far too much of his time in controlling the small vehicle.

He did manage, “Coming up on the point where we should find the probe and then I have to go into overdrive mode because we only have sixteen minutes to get what we can and try to get the little dear to come home to momma. Or, back up to park again.”

As Tom watched he was entertained with the final fifty miles of drop through the atmosphere and the incredible amount of heat that caused the “air” in front of the camera to waver, swirl and even blur at times. The lower the *Crab* got, the worse it was until, at three miles, and as Zimby slowed the descent, it cleared.

It was a visual equivalent of being in a room filled with harsh and loud noises then they disappear in a flash leaving you with such a noticeable silence it is, in itself, deafening!

The angle changed as Zimby managed to swing the *Crab*

around in a bit of a circle pointing nearly all the time at the Venus probe.

The Venus probe lay on its side, rocking slightly in the winds that scooted along the surface. To his eye, Tom could not see any damage other than scraping of the paint on both the lower fuel tanks and the structure holding it all together. Then, he spotted one antenna pointing into the ground. Small wonder why signals ceased when they did.

Then, with a suddenness that caused him to jump to his feet, and for Zimby's voice to cry out over the radio, the *Crab* flipped around so the camera was pointing upward, into the harsh glare of the sun, and the pictures went dead.

"Uhhh, sorry skipper. I couldn't adjust the thing in time to prevent that. I know your next question will be did the *Crab* get destroyed. No. I have control of it and am bringing it back up to see if we can repair it for another trip down. I'll, umm, wait for your orders. Sorry."

Tom picked up the desk mic and keyed it to transmit.

"No need to apologize, Zimby, and no need to repair for another try. As disappointed as I am that we only got a few minutes of video of the probe, it'll have to do. I believe this was a wasted trip since there is no way to see what damage might be on the underside. When you get the *Crab* recovered, pack it up and you guys come home. My thanks to you and Red and the crew!"

He sat back, fingers steepled under his chin, thinking what he should do next.



## CHAPTER 8 /

### RECONSIDERATIONS

EVEN THOUGH he had watched the “live” feed from the *Crab*, Tom waited until the crew of the *Dart* returned so he could watch, frame-by-frame, the extremely high-resolution video that had been captured. The sheer data size had meant only a reduced resolution version had been transmitted back to Earth.

With almost crystal clarity he could see the probe and its position on the surface of the hellishly hot planet along with the likely condition it was in.

Other than the probe being on its side, the antenna meant to find and follow the position of the Earth had been bent or crushed almost beneath the large structure.

“It isn’t any wonder why they never got anything other than the first few moments of signal coming back,” Tom told Bud as they ate a lunch in his underground office. “No possibility of achieving a signal lock as it sits today.”

Bud looked expectantly at his friend. “Are we going up there to pick it up?”

Tom shook his head. “Dad and I are thinking the answer is no. Not unless NASA or the Government comes up with the seven to nine million dollars it will take to build a specialty flying robot that can land in its own, figure out how to best take hold of the probe and get it upright on stable ground. That, by the way, is one of the problems I’ve spotted in the video we have. They set it down on a slight slope that has a lot of small rocks and one of the foot pads slipped off something that appears to be about football size when the wind hit it broadside. Never had a chance to stay upright!”

He looked at his watch. “Come on, flyboy. If you want to, you can sit in on our call to the Director down in Florida when we tell him the bad news.”

Bud shook his head. “Uh-uh. You and your dad can do the dirty work. I’m heading over to the Construction Company to take the near-final version of that light two-man jet for an altitude flight. I’m hoping for fifty-thousand. Bye!”

Tom left the office moments later and headed for the Administration building where he walked into the office just as his

father was starting to place the call.

“Glad you got here in time. I suppose we are still in agreement?”

Tom nodded and took a seat in the chair next to his father.

NASA had some teleconferencing capabilities and the Swifts had asked that the Director avail himself of such for this call. When Director Williams’ head and shoulders appeared he looked startled on seeing the two men at the other end.

“Oh. Well, hello and I thought I might just be talking to one of you. But, I suppose it’s better to talk to the full team management. Uhh, I do want to thank you for the video of the probe. It was better than we’d hoped for and our team has been going over everything for days. Since, that is, it was radioed back.”

Damon explained there was much better video available since the spacecraft returned with the full resolution files.

“If you can give us access to downloading the just over seven-hundred gigabytes of files we can get that all to you in about two hours.”

The face of Director Williams showed shock and then horror. “Oh, my! We absolutely cannot allow you or anyone to have access to our servers! That would be tantamount to opening the front and back doors to hackers.” He paused and added, “Of course you’ll understand that.”

“Actually, no. Not even in the slightest. Without any hint you intend to reimburse us for the costs of getting that footage, something absolutely necessary in order to ascertain if the probe is in condition to be saved, we sent a crew out there along with a robotic camera. If you feel you have ample resolution with that 640 by 600 pixel video, then fine. I guess this ends our involvement.”

The older inventor reached over and turned off the Telejector and sat back. “What an imbecile!” he said about the NASA man.

He reached over to the intercom. “Trent? If anyone from NASA calls for Tom or me, tell them we are not interested and hang up. Not, of course, if Senator Quintana or some high-ranking Government official calls about the NASA Venus probe.

“I understand. Do you want those calls coming through or should I take messages?”

“Peter Quintana and the President come through. All others are messages I may be able to return tomorrow. Thanks!”



Director Williams did call back on a landline three minutes later and Trent told him both the Swifts had left the office after their call with him and would not be available until the next morning.

“But, I have to talk to them. This is urgent as in my agency is at stake as are the jobs of more than seven thousand men and women.”

“Sir. While I was not in the room to hear your discourse, I did gather that you refused to assist the Swifts in the transferring of what I understand to be vital video to you. That is just not acceptable in their world. I will pass along the basic call information. Good day.”

With that he disconnected the call and set the phone to shuffle that number off into a voice mail system.

The next morning, feeling in a mood to be helpful, Tom told the secretary to accept any new calls from the Director’s office.

It came in nineteen minutes later.

“Thank heavens you’re there,” Director Williams told him. “Your phone man practically hung up on me yesterday and—”

Tom interrupted him. “That is not true and I will not accept any fabrications from you, Mr. Williams. Trent had orders to not put your calls through because of your refusal to let us try to help you. So, unless you are now going to say please send that video and here is the server info, I don’t think we have anything useful to discuss. So...?”

There was a moment of silence on the line before the Director said, “Okay. I may have overstated what I started to say about your secretary, but my call is very important. We are sending a data analyst up to your location as soon as you give permissions to pick up that video footage. File, I mean. May we send him?”

Tom chuckled making, he hoped, the Director turn red with either embarrassment or anger. “You would waste a lot of money, money NASA seems to *not* have if we base things on your reticence to pay us for anything we might do to help you, on sending someone up to New York? Isn’t that sort of ridiculous?”

Williams cleared his throat. “We don’t have a choice. We cannot open our—what I’ve been told is called a firewall—to outsiders. It is one of the precepts of our very charter. Once opened, the world can steal everything in an instant!”

“Listen, sir, and with some respect for your position, that is

patently ridiculous. If your data people are of any use whatsoever, they can open a private back door connection—what is known as a port—we use for just about one hour assuming you have high-speed connectivity to the outside world, and then they close it tight after we monopolize that entire bandwidth. Nobody will be able to get a data bit in because we'll take up just exactly what is available and be on the phone with your folks to tell them when we have finished.”

They talked about cyber security—a subject the Director was almost completely in the dark about—until the man finally agreed to see what might be done.

Less than an hour later he was back talking to Tom and agreeing it could be possible.

“I hadn't known we had that ability,” he admitted. “I don't know why I wasn't informed.”

Tom wanted to ask why he had not tried to find out, before and on his own, as that would have avoided the full day delay, but he held his tongue.

The Director gave him the information, getting some of the numerical information wrong prompting Tom to ask him to make certain he'd read it all correctly. After three tries the young inventor believed he had the proper information and asked to be transferred to the data team that would open the firewall and close it after the download was complete.

It took just two minutes until he was able to drag the video file over to the icon that had popped up on his monitor and the download counter began to move from 100% still to download downward.

Tom felt it only proper to remain on the phone and to provide updates to the woman he was speaking to, and she told him she appreciated it.

Fifty-one minutes later he told her it appeared there was only about twenty seconds remaining, and gave her a countdown to zero.

“I show it has all gone out. You should have a file of seven-hundred point six gigabytes. If it has finished at your end I believe your Director will appreciate knowing that you have closed off the port and have now safeguarded the server from the big bad world.”

She laughed. “He has just about zero idea what goes on in the data world, Mr. Swift. You and I know this had been a very secure

connection, but I'll call him nonetheless. You are correct. He has probably been having kittens worrying over this. Thanks!"

Tom put the video file in the proper folder on the Enterprises servers and closed that download window.

He next turned to the business of what to do should the NASA people come up with some funding for a rescue or retrieval mission. In his mind he was seeing a robotic mission to just pick up the probe and bring it back to Earth orbit where he would go up, bring it back down and deliver it to NASA for checkout and possible replacement of things such as the fuel in the tanks—he believed NASA had not taken into consideration the stability of the probe with partly empty tanks—and then that same robot might be counted on to deliver the probe back to the Venusian surface.

It would not be one of the costlier ways to handle things and it would keep anyone from being put in jeopardy, but it was a long shot. The amount of programming and the various things that might go wrong, or be discovered to be out of the rescue parameters, was enormous. It was a primary reason why man had continued to be part of space exploration and not robots that might compute data faster, but could not “think” and solve unexpected problems like the human mind could.

He had to consider the costs of that robot versus a manned mission. Both would need the ability to stand up to the surface temperatures, but a manned vehicle would require some of the most incredible heat shielding and cooling systems he'd been asked to manage since his descent with Bud into the caves of nuclear fire in Africa.

At that time he had discovered the rocks inside the cave held an amazing property to keep their integrity—and to not absorb the intense radiation—so they remained fully intact and had great strength.

This pleased him back then as his attempts to collect samples of a gas emanating from the mouth of the cave had dissolved each of the collection vessels he had fashioned from several materials.

It was the fact that the surrounding rocks did not dissolve that put him onto the idea he might create something from those very material—those rocks, and so had come about his discovery/invention of *inertite*.

He'd been able to fashion it into a spray-on liquid that did give some protection to the sphere the two boys rode into the cave, but

for a moderately short period of time... somewhat less than four hours in those caves. The thinner cables had not held up even with the coating.

It had been sufficient then... just; they had managed to come back up to safety, but inertite might not be enough for the Venus mission because it was not just the radiation in the caves, it had been the searing temperatures that would also be encountered on Venus.

His other consideration for any manned mission was the welfare of the occupant offering comfort and a breathable atmosphere for several more hours than the mission might take. He pondered what sort of air scrubbing might be required and had to take a side trip into the design of a better method for removing carbon dioxide and replacing the used oxygen for the astronaut occupying the craft.

It took him just a single day as he already had some experience with the removal and collection of CO<sub>2</sub> from his days when he developed his fire fighting seacopter, the AntiInferno Suppressor.

He would construct nothing yet but saved off a fairly complete design with notes so when the time came, he would be ready.

Tom turned over the next few days to other ideas, but was interrupted by another call from Director Williams.

“Tom. Can you tell me if and when you can go save that probe? You see, and I am breaking the top secrecy for this mission by telling you this, but that probe might be vital to the whole solar system! What I mean is, it is meant to study Venus not so much visually, although there is that element to it, but more for studying the current rash of volcanic and seismic activity out there.”

“Oh. Isn’t that sort of activity par for the course with Venus?”

“Not like this. The probe was supposed to give us definite proof of the stability of the planet. Or, the lack of it! If Venus is no longer stable, then a great number of our planetary experts fear it might shake itself apart. Maybe not entirely, but even if a chunk of that planet the size of Earth’s moon were to break off and tumble into the sun, it would set off solar flares the likes we’ve never seen nor hope to ever encounter.”

“Could that not as easily occur when we are on opposite sides of the sun? We are, as you know, only in line with each other once about every two-hundred-twenty-five days and move closer to and farther from fairly rapidly.”

“We fear that even at a quarter orbital year of separation, all

electronics and most electrical things would cease working. The planet and the population would be thrown into panic. Great waves of solar radiation bombarding our planet. There is even the fear that all but the deepest buried nuclear warheads could be energized into exploding!”

“I see. And this would allow you to give ample notification to the world of the possibilities and perhaps let us prepare for the worst?”

“Oh, god, no! Mankind would only panic if they had that knowledge. This would be to allow the government and military to prepare for what is to come.”

Tom was dumbstruck. Director Williams realized what a heavy load he had just placed on the inventor’s head and gave him a few minutes to digest what he’d been told.

Finally he found the words. “Well, that isn’t at all what I ever thought I’d be hearing, but it gives me something to think about. Can I get back to you tomorrow?”

“Certainly,” Williams said sounding dejected.

“I have to ask, did you believe we might go fix all this in an instant? Even if I go all out and our companies work three shifts a day, nothing might be able to happen inside of two or three months!”

“Oh, dear. If that is what I and we have to live with, then so be it. Please hurry and let me know what you can do.”

“And, what it is going to cost NASA, sir. With respect, we won’t do this for free—especially given it appears we would be left as in the dark as everybody else were we not involved in this project—and we won’t come up with a solution only to have you put it out to bid. My father would tell you we are only moving forward if we are the only player in the game. No ifs, ands, or buts.”

“Understood.”

The conversation ended and Tom pressed his TeleVoc pin. “Damon Swift,” he silently said.

“Yes, *Son What is it?*” came the voice of his father inside his head.

Tom explained the new and more immediate reasons for NASA wanting the probe set upright.

*“I thought there likely was some other purpose for that probe, but nobody would tell anyone anything. I would place a guess*

*that the Director is under great pressure from above, and by that I mean the U.S. Government all the way up. Let me give Peter Quintana a call and see if he can fill in a few blanks. Perhaps I can fill him in on some things as well. After you finding that bug in his office he probably is in a mood to be helpful.”*

While he waited for some report, Tom went back to consider the manned angle. He disliked sending anyone on what could be a fatal mission and Bashalli would absolutely freak out and likely leave with the children if Tom told her it needed to be him. His father had finally realized that the dangerous missions were for the young and unmarried. They were not for the man or woman with the great responsibilities a family placed on them.

He believed he had been justified in telling the Director about the months it would take to get that probe righted—or brought back, which he still felt might be the best option. Surely the month or two needed to check it out and make repairs, then get it dropped back into place would be an unbearable delay for the NASA folks, but he wondered just how bad the situation was on Venus and was this probe going to give them the information they sought.

Tom tapped his TeleVoc again.

*“I’m on a call with Peter. Can this wait?”*

“No. Ask him about who is behind the demand for the data the probe can give and if we might see the complete plans and schematics. I have the oddest feeling this isn’t all above board.”

*“Okay.”* And, the pin went silent.

## CHAPTER 9 /

### SOMETIMES WE WAKE UP...

WITH NO other mention of the agency's former refusal to provide what they insisted were the "Absolutely Top Secret" design documents, the entire set of inner and outer specification arrived via a personal courier two days later.

Peter Quintana had come through and neither Tom nor Damon wanted to ask what he had done, said or threatened to get them to turn loose the package of over three-thousand pages, but they were glad to have something.

"Except," Tom told his father, "I know for a fact their data people have all this digitally. I believe this twenty-five pounds of paper is the little child in the Director's chair stamping his feet like Sandy used to do and sending what we need, but in this very difficult to get through format."

Damon smiled. "I agree, but I happen to have the private number of someone who might help us. You do as well. Remember the woman behind the firewall issue so we could upload the videos?" Tom nodded. "I've been led to believe she might return the favor. Someone gave me her number and name."

Tom raised an eyebrow. "Who?"

"A little bird from New Mexico."

"As in tweet-tweet, my name is Pete?" Now, Tom smiled and said he would make the call.

"Well, Mr. Swift, it is nice to hear from you. Do you have anything more you need to send through the firewall and behind the Director's back?" She giggled a little.

He explained the data package they'd received, all the paper pages of it.

"And, I'm guessing you would like to be able to search though it for multiple things without having to turn page after tiresome page? I can help, but it'll need to be during the lunch hour which is... oh, only about fifty minutes."

She provided the server details—different than before—and said the firewall would be open two minutes after noon.

Right on time, Tom pressed the ENTER key and was allowed in. The single folder of files was quickly dragged over to his

desktop and the counter showed it would be just three minutes to complete. He was tempted to call the woman but as he reached for it his phone rang.

“Mr. Swift. I see you are receiving. I’ll hold until you say it is finished. Please do not tell anyone where you got those files or that you have them... unless I am put under investigation at which time I hope you will come to my defense.”

“Guaranteed,” he responded. Two minutes later he said, “Got it. Thanks.” The connection was broken and he saved a second copy of the files to a safe server before scanning the folder for any viruses or Trojan programs. There were none so he opened it to find nineteen separate files.

The first file was labeled such that he believed it would be only the mission details. He put that into a folder to send to his father. He moved on to one showing the outside of the probe in both diagrams and photographs. As the video and photos from Venus had shown the structure was simplistic and he wondered, again, why the legs had not been engineered to spread out at least the three feet he felt would have been very possible.

With a sigh for the stupidity and short vision of NASA he next opened the file with the propulsion information.

“So, they did not take into account the lower bottom weight that would be gone once fuel had been burned. That lack of weight down low was never in their computations. Good thing there was at least forty percent of both fuel and oxidizer left or it could have tumbled over just as it landed,” he said more to himself than his father who sat within ear reach.

The older inventor came over and looked at what Tom had on screen. He studied what his son was looking at for three minutes.

“Idiots!” he declared before going back to his own desk.

It echoed Tom’s own thoughts on the matter but especially the NASA Director. Maybe he was wrong, but he believe anyone at the top of a space agency ought to have more than a tenuous grasp of what was involved and not just be a paper pusher.

When he snorted Damon looked up. “What? Thoughts on the matter?”

Tom told him exactly what his thoughts were. “Am I wrong?” he asked.

Damon nodded a little and began, “In theory you are absolutely correct. The man at the top of such an important and costly



agency should know what the heck his people are doing. But he is just another in a line of eight directors they've had including the one I worked under who have mostly been practically clueless when it comes to rocket science. NASA is not alone. Think about all the family businesses run by a son or grandson or nephew or niece of the founder who did have the knowledge and died, but the new man or woman is only a businessperson. Probably has a degree but zero understanding of what they really do. Take your own grandfather, George, for example. Not an iota of inventiveness in his head and no real desire to be roped into the family business, and look what almost happened.

"No, Son, Swift Enterprises is unique other than the George Swift interlude. We don't pay the highest wages but we treat people with the respect they deserve and do not try to get them to do impossible or silly or haphazard things. And, you and I strive to understand everything we do here and that builds respect that goes both ways. That's why we have nearly zero turnover. NASA on the other hand has a greater than fifteen percent turnover annually. People like this current director don't help matters."

"And, yet, they get into those chairs time after time?"

"They do, but many of them fail. I mean all over the place, not just in Florida. You remember Robert Whitcomb up in British Columbia; the man with the little helicopter that nearly cost you and Bud your lives?"

"Sure. And, his nasty daughter who also tried to kill us."

"Right, so with her dead and Robert still wanting to actually retire, he turned the running of the company over to his vice president, a man who came from the wheat threshing machinery industry, and headed off to relax. Well, with Robert trying to relax, I just read the company doors may be about to close for good. Seems the new man went on a buying spree to pick up enough parts and things for a thousand of the helicopters, but sales did not and could not match that so when the creditors came calling, and Canada has some strong laws in that regard, they were ordered to pay their bills or go out of business. I hear that point is a few days away."

"What a senseless pity." Tom was silent thinking about the kindly old man who had been hoodwinked by his own daughter and her former South American murderer husband while Tom and Bud were trying to win an X-Prize for an around-the-globe solar and battery powered flight.

Now it dawned on him that it wasn't just Director Williams at

fault; it was the system that put men like him in those sorts of positions.

“Could we help Robert and his company in any way?”

Damon looked at his son. “Are you suggesting a loan, a partnership, or that we just purchase a dozen of more of that helicopter?”

“It’s a fun little helo,” Tom replied with a grin.

“We’ll see.”

While Tom continued working on his design for a potential manned vessel, Damon had finished the build of his Surface Effect Jet, the project for Norway.\* One of the most significant things he had failed—by design—to mention to Tom was that he had decided the best way to avoid the potential for the Russian ships to attack was to go in with highly visible weapons right on what he was calling the SEJs.

That meant surface-to-surface missiles, and on a SEJ, these were top-mounted on the stubby wings with special laser acquisition equipment visible behind the tinted glass nose of each.

Having already found out the SEJs could not be spotted on **RADAR**, and their alternative had been infrared-equipped drones that could not spot an SEJ once it had pumped some of the surrounding ocean water over its upper surfaces and cooled down in the evenings, the men on the ships had become exceptionally nervous.

Which is one reason Damon decided to send the SEJs across the Atlantic running during the day and at top speed. He wanted them to see the SEJs coming at them!

Alerted by satellite images, the Russian ship crews had all decided to beach their small ships knowing they could not outrun either the SEJs or their missiles, and all crews had turned themselves into the Norwegian police and military.

There were two very interesting aspects of this:

- 1) the crews were *not* Russians but Kranjovian Navy men who had left their country when Russia invaded and annexed it a month earlier; they had stolen the ships right out from under the lax security at a Russian North Sea port. They had hoped to embarrass Russia enough to get the rest of the world to attack them; and...

\* See *Damon Swift and the Surface Effect Ocean Jet* (part of *Damon Swift in Flight*)

- 2) Not a single one of the missiles on the SEJs was really more than a tube with fins and some decals for markings, a battery, and a small laser pointer that was set to flash every few seconds looking like a missile ready to launch!

The whole affair led to a quitting of Kranjovia by Russia who were having their own internal political struggles, and at least two of the U.S. service branches had generated purchase orders for almost nine dozen of the fast, water-skimming craft.

All Damon had insisted on was that none of them be outfitted with weapons.

The success of a project Damon had been reticent to take on at first was a source of amusement among the executives of the company. Even the inventor had to smile at how it turned out.

The SEJs went into full production and he turned his attention the completion of something he'd managed a start on years earlier, and only now was ready for it to come to fruition.

Damon strode into the shared office around nine the next Monday morning. "Well, just the son I wanted to talk to. Got a minute?"

"Sure, Dad. What's up?"

Damon sat down in one of the conference area chairs. "Join me. First I want to hear about that successful test flight Bud took in the tiny jet."

"Just about as perfect as I hoped it would be. He went up, did some maneuvers, raced around the state and then pointed the nose up. He topped out at fifty-three-thousand feet and tells me he might have eked out another thousand if he'd burned off a bit more fuel. We're going to officially call it a fifty-thousand foot ceiling but know it can do more if necessary. He headed east and made a one-hundred-fifty mile approach at Mach-1.05 and came in for a landing with a minute to spare on the schedule."

"Any reported sonic issues?"

"None. That wasp-waist design is something," Tom said. "It's almost as if it absorbs the potential boom pressure build-up, although I know it really shunts in out before it can make any boom. It does, however, result in a sort of purring coming from thousands of feet above people. A point of curiosity but no aggravation."

Tom told him some of the flight highlights, but could see his father had something else on his mind. He asked what it was.

"I have a favor to ask and it includes you being gone from your lovely wife overnight. Do you recall the SwiftJet I designed when you were seventeen and finally got the prototype built in time to use it to finish work on Fearing Island?"

Tom did. The small, 15-person executive-size jet was built to give Damon faster access to the island as it was being prepared for space launchings. The company had built seventeen of them, including the prototype, before Damon called an end to the project. It had made a slight profit but he felt they were underpowered and so the sixteen others had been sold to a start-up airline in Canada where they saw service for at least seven years until the company went out of business.

The jets had been scrapped because nobody wanted to buy them, so all that remained was the first one.

"Sure I do. Nice little jet if a little cramped inside."

Damon nodded with a grin. "Well, did you know Jake over in the Construction Company has been building a replacement for that jet?"

"I'd heard rumors but have had no time to go over there. So, what's this favor you want?"

"Bud and Zimby Cox were scheduled to take it on a trans-Atlantic test flight tomorrow, but Bud called in with the flu today so he can't go. I really need the data as soon as possible and can't take it myself. And, the earliest another of our pilots, other than your sister who I will not put on such a test flight, is a week from yesterday. It will be over, circle around most of France and then come back after a quick fuel stop at Paris' Orly. So?"

Tom grinned and said he'd make sure Bashalli knew it was her "father Swift" making the request.

As the *Pigeon Elite II* soared over the Atlantic Ocean, Tom suggested they go entirely on the autopilot for the next two hours. "That will give it a chance to control the jet in that oncoming weather I'm seeing on the **RADAR**."

Zimby nodded and also agreed with Tom that he, Zimby, could take a nap for the next three of their six-hour crossing.

"Then, you can ride her until we get to France. I'll take her around the countryside and then to Orly where we'll refuel and

spend the night," Tom told him.

Things progressed very well for the following two hours and ten minutes. Zimby was asleep when the first of the circuit breaker alarms sounded jolting him awake.

"Ummm, hey, the landing gear circuits are reporting a fault," he told Tom as he sat up and checked the breaker board where all fifty-nine of the jet's electrical circuits were routed.

Tom looked over to the board above his copilot's head. "Reset it, please," he commanded now all business.

"Resetting... and... there. It was the port landing gear circuit." The alarm stopped sounding. For five seconds.

"Same circuit, Tom. Another reset?"

"Yes then try rerouting whichever side that is to the other side circuit."

"Afraid it is both sides—" and a second alarm came on. "And, the nose wheel as well. Resetting all." Again, the alarms stopped only to come back.

"Pull the circuits for now, Zimby. I'm not feeling anything like a wheel that suddenly dropped. Out here we aren't going to need the gear. Might be in for a rough landing, but at least it will be a quiet one."

Five minutes later Zimby asked if it was okay to have a conversation.

"Sure. We're fine right now, and you have to expect a few glitches on one of these test flights," Tom responded cheerfully.

Zimby started telling Tom about his first flight instructor.

"After my first flight he would climb into the back seats and close his eyes. 'Hey, kid. You're a natural and I trust you. Just wake me if anyone calls specifically for me, or when we are ten minutes from landing.' And, with that he'd fall asleep and start to snore so loudly it would drown out the radio sometime if I didn't have the headset on. When I asked him—after he signed off on my pilot's license of course—if he ever overslept, he grinned at me and said, 'Son. Sometimes we fall asleep and just as long as we wake up it is all good—"

At that moment at least ten new alarms went off making the cockpit reverberate like a rock concert. The jet's nose buffeted a moment and then smoothed out.

Zimby's hands were racing all over the circuit breaker board

resetting each one indicating RED. But, by the time he had the last one off, the first one or two were sounding again.

Tom, calmly, because they both knew panic was not something you wanted at a time like this, yelled over the noise, "Any of those flight critical right at this moment?"

Again, Zimby's hands and eyes roamed the entire panel.

"Three, and one of them is the circuit breaker for the warning alarms' breaker. That has to stay on for safety if it trips more than twice. Oh, and the flight computer. If I pull that one the computer shuts down."

Tom nodded. "Do it. Might as well try a computer restart. It'll only take thirty-seven seconds and I can do the manual thing for at least that long." He grinned.

The alarms went off as did the wrap-around control panel in front of their seats. Seconds later a row of green lights came on at the top of the panel. As soon as the entire row was lit, the panel came back to life.

They listened and heard no more alarms for the next minute.

Then, all hell broke loose!

## CHAPTER 10 /

### ...IN THE STRANGEST PLACES...

TOM WOKE UP with a searingly bright spotlight hitting his left eye. He had to tightly shut both his eyes and then realized it was *only* the left eye and not the right one that was nearly blinded. That didn't seem to be right. So, he opened the right one and discovered the light was likely to be the sunlight coming through a rip in the ceiling over his head.

He rolled to the right about a foot and lay on his back. Now he could tell it *was* sunlight, but that didn't seem to help at the moment.

*Where am I*, he wondered before his having rolled a little finally registered with his brain and nerves and he felt deep and sharp pains in his right hip and upper leg.

He could tell he was lying on a wooden floor, old and musty smelling, in a nearly empty room of some twenty feet square.

Carefully, in case he was injured in his upper body and arms, he slid his left hand down until he felt the very obvious tear in his jeans starting about at the belt line and heading jaggedly downward. He tried bending his body at the waist and to that side to allow the hand to go farther down but the pain increased. He stopped and straightened out.

It was only then he realized he might have suffered a spinal injury and all this moving about could make it worse. But, he could feel some scrapes on his skin in his waist area and believed that meant nerves were intact.

Tom used his stomach muscles to raise his torso to about fifty degrees before he felt a twinge. He braced his elbows behind him and held the position looking at the state of his left side.

Most of the pants leg was missing from the knee down, and the area from that front pocket to the back one was gone, but he breathed a sigh of relief at seeing the leg and foot were still there and in relatively good condition. With a little trepidation he tried wiggling his toes. He grinned at feeling them moving about inside his sneaker. Next came the ankle. It, too, moved and he could rotate it around without pain.

So far so good.

The knee was another matter as it hurt. The good news was it didn't feel as if it were broken, just badly wrenched. Now came the "grit your teeth and just get on with it" job of moving the hip.

First, he placed his hand gently over the joint to see if he might feel something broken. He lay back and took a few deep breaths before attempting to lift the leg.

It moved and he felt nothing grinding inside as he got the leg up to about thirty degrees before the hip joint began to really hurt. He set it back down and took a moment to relax. And breathe.

The dust in the room made him go into a five-sneeze fit which proved to show him the only place his body actually hurt was that left hip. Everything else got a good shaking and seemed to be fine. He lay back and took stock of the rest of his body. His hand exploration of his head yielded no blood or bumps or obvious damage. Shoulders, elbows wrists and fingers reported they were fine and ready for duty. His right leg seemed to be about one-hundred percent.

So, he rolled to his right side and tried bringing his knees up before pushing up from the floor into a sitting position. It hurt but the pain seemed to be diminishing.

It was now the inventor took a good look around him.

He was in some sort of living room that had been abandoned some time in the past. Then, it was likely a parade of other people came by, slept, ate and who knew what all else before leaving their trash and moving on.

In other words it was a pigsty of a room. The immediate area around where he had been lying was relatively clear and he could not recall thrashing around enough to do that. Something from the dead rat family lay at the cleared edge. He was happy his nose seemed plugged at the moment. Then, he realized it could be dried blood. He poked a finger into his nostril coming away with nothing.

Nearby was the remains of a push broom, or at least the bottom third of the handle and about half of the bristle end. It wasn't going to be the best crutch improvised by man, but he reached over and brought it back. Using it, Tom managed to get himself to his knees and then to his feet. Once there he knew most of his weight would need to stay on his right side.

Now upright, he took a good look and a hand feel of the left leg. It was intact but when he tried putting weight on it, the hip rebelled with enough pain to make him dizzy.

He did not fall down, but he did stagger in a sort of hop over to



the one and only window in the room. It had been painted over with so many coats he couldn't scrape enough away to see outside.

It was then he knew he needed to see if he could contact anybody. His fingers came up to the left collar of his shirt and the TeleVoc pin... only there was little of the collar remaining and no sign of the pin or its magnetic backing.

Tom sighed. He tried to recall what had happened. He remembered sitting at the stick of the new *Pigeon Elite II* business jet his father had designed—taking a new approach to the very first Swift jet he'd designed back when Tom was seventeen—on its first overseas flight. As he concentrated, more details came out. He and... uhh... oh, yes, Zimby Cox had been the pilots. They'd first heard a couple alarms as they passed directly south of Iceland. He could not recall exactly what those had been at the moment, but as they approached the coast of France many more came on he could not override.

That was when the controls froze!

He'd ordered Zimby to parachute out with a memory stick of the special "black box data" that accompanied all test flights after they passed over the French port town of Saint-Nazaire, home of the eastern terminal for Tom's first HydroWay run. The stick had a navigation beacon installed, set for only frequencies the Swifts used, that also helped him relay a distress call back to Enterprises.

Zimby, reluctantly shaking Tom's hand after extracting a promise the inventor would bail out as soon as it was prudent, had gone to the rear door, opened it just enough to step through, and had disappeared.

Tom's memories got hazy at that point but he seemed to think he had finally given up between Saint-Nazaire and a large farming area in central France where the crash would not be apt to kill anyone. He was hoping to get enough control for a soft crash he could walk away from.

And then, he remembered nothing until the bright light in the eye. There was nothing in his brain he could call on to fill in that gap.

Making matters worse, his watch was missing as were his wallet, comb and even his miniature tools made to look like pens and pencils.

In fact, everything that had been in his pockets was missing.

With a sigh he wondered why he was having so darned much trouble with aircraft these days.

Deciding he really needed to find out where he was, he spotted an old towel—very much the worse for use—and a brick in one corner. The brick got wrapped up and he hobble-hopped back to the window, turned his face away, and hit the pane with his silenced weapon.

The glass fell away with only a small piece embedding itself in his wrist. This he pulled out using his teeth and then sucked the wound to draw out the inevitable germs. It mostly ceased bleeding within the next few minutes, time he spent examining what lay around him.

For one thing, he was not on a ground floor but likely to be three stories up—making him pray there were useable stairs going down. Secondly, he was not in farmland; he was in some small town that appeared to have suffered the ravages of war. Everywhere he could see buildings had chunks that had been blown out by artillery shells. Walls were covered with scorch marks and bullet holes or ricochet spots.

About twenty fire-gutted cars littered the two visible streets with only three recognizable vehicles seemingly left around. One was an army tank. Tom now wished he'd spent a little time in school looking at tanks instead of all the aircraft in the world. He had no idea whose it might be. The second one was an ambulance with its hood up and no engine visible. There was nobody near his building and there were no vehicles moving along or idling near him as far as he could hear.

In fact, although this looked like an area torn by war he could hear nothing of the sounds of war. He listened carefully finally picking out few birds and what actually sounded like a farm tractor far off in the distance.

The third vehicle was the front half of an old motorcycle.

"Probably something like great-grandfather Tom fixed up when he was young," he muttered.

He hobbled to the one and only door in the far wall where he discovered he'd been locked in.

He rapped lightly on the door calling out, softly, "If anybody is out there, I'm awake now. Hello?"

There was no answer and nobody opened the door so he hobbled back to what had once been a sofa and lowered himself gently onto the only intact arm. It held his weight so he relaxed and thought about his situation.

Injured hip but not broken. Badly torn pants but still covering

his modesty. No identification or money. No TeleVoc pin so no communication unless he could find a phone that didn't require money, and probably foreign coins at that!

The sound of a door opening below could be heard mainly through the broken window. Tom tensed as footsteps, light and cautious, seemed to be coming up.

Glancing around he could see no place of concealment nor were there any weapons... other than his brick. He quickly uncovered it, dropping the towel to one side, and gingerly stepped over to stand behind the door.

The footsteps came closer, now sounding like they were on his floor, coming toward his room. Tom listened carefully trying to make certain it was one set of feet and not two. It would not do to attack the first person in if there was a second one, probably with a weapon, standing behind, ready to shoot.

A key was shoved into the lock and turned. Then, the knob turned slowly and the door opened a crack. It paused and Tom tensed lifting the brick higher. Slowly and very cautiously, the door opened half way and a head poked into the room.

Tom caught himself mid-swing as he saw it was a young woman.

He quickly stepped back yanking the door fully opened before moving forward, brick still held menacingly.

"Do not shoot," she said in a soft and almost pleading voice. "I mean, not to hit me wit... with that, please." He noticed she had what he might term an Eastern Block accent. That brought to mind either Kranjovia or Brungaria, neither nation was one he'd like to be in although Kranjovia had at least been *trying* to be a democracy. Now the Russian threat was passed it was anybody's guess.

"Are you alone?"

She looked around and behind her. "Oh, I see. Am I with others? No. No others. Only I."

Tom motioned her into the room. She came in still looking as if she feared being hit by his brick.

"I have three questions," he told her holding three fingers up with his non-brick hand. "One," where am I?"

"You are in this room, no?" she asked by way of an answer.

"I mean what country is this, what town or city and where in

town am I?" He shook the brick menacingly.

She appeared to think a moment. "You are in Ukraine town of Novo-Crotsnya. It is you being in old place of living... ummm. Sleeping place. Hotel? Center of town. Nobody living here now because of Russian attacks many years ago. Now town is..." she faltered trying to come up with an English word. She shrugged. "Do not know American words. Uhh, place where no living are and people remain far distance?"

"A ghost town?" he guessed. Her face brightened.

"Da, ghost town. Is good words I think. You are in ghost town of Novo-Crotsnya. I must get you away before police army men come and take you. Come, let us go."

Tom shook his head. "Not until you tell me where all of my things are and who you are."

She nodded. "I am my name Yara Fomava. I have your items in my bag I remained downstairs. Come. We must leave..." but it was now she saw the livid bruise on Tom's nearly bare left hip. "You are ... broken?"

"I don't think I am broken, but I am very badly hurt. Can you find something better than this?" he asked holding up his makeshift mini-crutch.

"Does work if larger?"

He nodded and held his right hand at armpit level. "Yes if this large."

Yara smiled and made a wait one-minute sign before disappearing out the door.

Tom was still wary so he retrieved his brick and stood behind the door.

She came back with another broom a minute later. This one was full-length and he gladly took it from her using the brush end under his arm.

He decided to not relinquish his brick until they were downstairs and he could see there were no others waiting to attack him.

The trip down was difficult, but his hip was actually feeling better the more he moved it. Yara helped the best she could in the narrow stairway but he was mostly on his own. They reached near the bottom of the final stairs and he motioned for her to go in front. She did and he was happy to see she was not attacked. So, Tom peered around the corner to find the hall to the front door

was empty.

They went out and she helped him go to the right and to a small car he recognized as being an old Škoda. It was still rather sleek even if most of the original orange paint was badly faded and in many places, missing.

"A Czech car?"

"Made in Russia," and she spit on the ground in disgust, "but we make outside parts by Ukraine factory." She slid quickly into the driver's side while Tom struggled to get into the passenger side without fainting from the pain.

Yara waited, impatiently and all the time looking around until he was in and had closed his door. He leaned back with a sigh and a wince.

The small engine didn't so much roar to life and it wheezed and coughed itself into running and she put it in gear and took off.

"I can find this from old woman owner for only three thousands of Hryvnia.\* I do not know what that is in American dollars but is very cheap. Petrol costs more to drive across country than entire of car."

This seemed to exhaust the conversation about her car so Tom tried to find out some more information.

"What happened to my jet? I know I landed hard, but where is it?"

"Jet plane, yours I know, landed in field thirty kilometers to north and too near where army soldiers are, so we took you away very fast and brought you here. Did not know you were hurt but had to get away quickly. Army soldiers came five minutes after you are taken so is just in time to save you. When we made you pulled out you looked at me one second then closed your eyes. I think you in much pain but there was no time for kindness. I am apologizing for this now. You were not awake entire trip. Only now. Oh, and jet plane only broken in wheels and tail on one side." She held up her left hand. "Not bad but you say hard land, you are very correct!"

"Where are you taking me?" he asked in a suspicious tone. "And, how far do we travel? When do I get my items back?"

"Where we go is place of safe living. My home and place where we will escape you to freedom so army soldiers and police soldiers

\* One U.S. Dollar equals approximately 30 Ukrainian Hryvnia

will not find you and put you in prison for being in Ukraine without permission or identify papers. Is very bad for being in Ukraine now without permission of the Russians. Please do not ask more now. I must concentrating on roads."

Tom closed his mouth. Then, his eyes closed without him wanting them to and they did not open until the Škoda suddenly left the poorly paved road and headed across what felt like a minefield. At least to Tom's sore hip, which was the thing mostly waking him.

He could see once he got his eyes focused they had transferred to a dirt road that was actually, moderately better and smoother than the paved surface once they got a hundred yards along it.

"How much longer," he asked. "By that I mean either how many kilometers or minutes. I sort of have to go to the toilet."

"It will be very soon in minutes, Tom Swift, until we reach the place from where tomorrow you will die!"

## CHAPTER 11 /

### ...AND THEN, FREEDOM!

TOM'S HAND shot out in an effort to open his door. Bad hip or not he was going to jump. Except, there was no handle on his side other than for the window and he knew those only came down half way.

"What are you doing?" she screamed at him reaching over to hit at his right hand. "Stop, please. I am begging."

"Getting out! You're not taking me to be killed!"

He expected anything but a twinkling laugh.

"Okayyy, what am I missing?" he asked still ready to try to get away.

"When I speak of killing Tom Swift I mean the idea of you. If government thinks you are dead they stop looking for you. You already did not die in jet airplane crash and they have that wreckage, but not your body."

Tom had to think about this a moment. Finally he asked, "But if they think I am dead they will tell the world. They might have already done that. My family will be frantic! Uh, very scared. I have to get word to them—"

Yara shook her head. "Is nyet, No. Ukraine government will not tell world you are dead until they are certain of it. Then, they will take somebody from death examining place and burn that body then put ashes in wreck and burn that. Then they tell world and invite grieving America to come pick things up. And, you."

"So, you and your friends will do something to make it seem I have escaped and then died, and then your government somehow finds out and come take the body away and... and... umm, why cremate a different body than the one you give them?"

"Have likely already do this so death markers will match time or day of crash. The other body will take that man's place. Nobody can afford to claim their family dead to bury them so it will eventually be burned and ash put in unmarked pit."

Tom now relaxed. He hoped she was telling the truth, but he couldn't be certain. Yet.

The old Škoda bumped along the dirt road another mile or more before turning off and into an abandoned farm.

"Let me guess," Tom told her. "This is a secret hideout for a vast organization of espionage agents. Right?"

She sighed. "You are speaking too many fast for me to understand all words. But, I think I know what you ask. Answer from me is no. This is my family home, only all my family is now dead. Is only me and I keep this place looking deserted so nobody will want to try to take from it."

Talking more slowly, Tom responded, "Back home people try to make places looked lived in to keep out squatters."

She looked askance at him.

"Squatters are people who do not own a place yet the break in and live there without making payments."

She nodded, now understanding. "Is not price enough low for anyone to take on fixing up abandoned place so far from peoples and town."

"Ah, yes. That."

Inside she showed him to the bathroom and then to the bedroom that he would use. There was running water although it was not heated so taking a shower was going to be a challenge. He did pull his trousers down, or what was left of them, and looked over his hip. The bruise covered about a square foot of skin and ran more to the back than the front. He wondered if he might have cracked his pelvis. His grandmother had a year before she passed away and it hurt her quite a lot making it difficult to walk for at least a month.

He went to the door and told his host he was going to sit his hip in a tub of cold water.

"Is good idea. If broken, will not help. If not broken, might help."

Tom filled the small bath with just four inches of the water, stripped off and got in. It was about the most unpleasant bathing experience he had ever had and so he remained in only five minutes.

But, to his surprise, when he went to stand up, the hip didn't hurt half as much as before. So, and a bit reluctantly he sat back down in the water, added another few inches and remained in it for another ten minutes.

He even closed his eye for a few minutes.

It was most shocking for him to stand up and turn around only



to find that a new pair of pants, looking to be about his size, and a clean shirt were sitting on the small chair next to the sink.

He toweled off, got into his own underwear and the new pants—they did, indeed, fit—and then the shirt. It was a size too large but was comfortable and clean.

When he came out into the main room Yara was sitting there, a sort of grin or smirk on her face.

"You are very good looking from the back," she stated. Seeing him turn bright red, she added, "Do not worry. I did not see front."

He nodded and grinned, relieved until she said:

"Not today, that is."

He could see a look of mischief on her face so he smiled. "If you want to know about my front, I'll give you my wife's phone number. Speaking of which, can I contact her to let her know I'm alive?"

Her face changed to one of sorrow. "Not able to do from here. Would not be possible, and even if possible, not safe. We wait until tomorrow when we try to get you to border."

He tried to ask what border that might be; he still had no concept of where in Ukraine he might be. She shrugged and didn't seem interested in giving him that information.

The more he thought about this place the more he believed this might have been her family home, but today it was more like a safe house, and the fewer people who knew where it was, the safer it was.

Their dinner was a grated potato pancake with some dried meat in it. It was dull tasting but satisfying.

It was icy that night both outside and inside the house and Tom couldn't settle in and get comfortable. Yara evidently heard him because about midnight his door opened and she came in wearing only what looked like a long t-shirt, climbed into his bed without a word, and wrapped herself over him. Her body was warm and soft and got warmer by the minute. A minute later she was snoring and he knew her intentions were just to share warmth. She probably needed it as much as he did. Ten minutes later he was fast asleep.

The morning sun woke Tom as did the smell of eggs frying. He got up, dressed and went into the large room.

Yara turned and gave him a cheery smile then went back to her cooking.

As they ate fried eggs, toasted dark bread with sweet butter, and sliced apples, she told him they would be moving in an hour.

"My friends will come to meet us in new place before making site of your death and moving you to border. Then, when you get home Russian or Ukraine puppet government will have declared you dead and you can show up on television and shame them around world! Is okay?"

Tom smiled. "Is very okay!"

They left the house and got back into her car. This time Tom climbed in with only a little pain. Soon, they were driving on a fairly straight road. And, because the sun was still low in the morning sky and behind them, Tom knew they were heading west.

"Did you recover a small round pin from my clothes?" he asked trying to sound casual about it.

"No. Was it in pocket?"

"No. It was on my shirt, about here," and he pointed to his left collar.

"No. No pin and no part of shirt. If it was important I am sorry but must be in crashed jet plane."

The drive lasted only an hour before they pulled to the side of the road where a large transport van waited.

Yara leaned over and gave Tom a quick kiss on his cheek. She handed him a small bag with most of his personal items inside. "Is where we part. But I always will treasure my hours in your arms in bed, Tom Swift," she said and then laughed. "It will be secret from everyone plus your wife; just we know." She laughed again, kissed him on the lips and gave his left hand a squeeze, now looking sad as if she did not look forward to his going home.

A small man got out from the van and approached the car. He nodded to Yara and she returned the nod. "Go now. Sergei will take you to place where you die and then to safe border. Go!"

Tom got out, slowly as his hip had almost locked up on him from being stationary. He didn't have his makeshift crutch so he hobbled slowly to the man who got under his left arm and tried to relieve some of the weight.

It was less than successful, but it got the inventor to the van.

With Tom pulling and the man pushing they got him up and into the back where he found there were three other men all sitting on piles of old pillows... and a motorcycle.

Tom looked back to where Yara's car had been only to see it disappearing around a far bend in the road. He sighed. He had never actually thanked her.

The small man had climbed into the front and soon the engine roared and they took off on what was not, Tom thought sadly, going to be a smooth ride.

Thankfully, it was a short one and fifteen minutes later they stopped.

When the back doors opened the other men got out, walking to a much larger truck. When they came back, each had a dead body over their shoulders. The largest man went back and brought a final corpse to the rear of the van.

By that time the motorcycle had been rolled down a makeshift ramp—just a piece of two-by-six wood—and moved to the side.

One of the men climbed under the van and a moment later the smell of diesel came out along with a trail of the liquid.

Stepping back, Tom noticed there was another vehicle in front of the large truck and all but the small man headed for it, climbed in and drove away.

"If wonder what is happens, now this van has horrible accident with truck and we all die. We are people unknown to government and only as repair crew due in place called Tiskolun but we no make there. Inspection team comes and finds us plus you all dead in van. They know is you because we put you wallet in the extra body."

It seemed logical and horribly cold-blooded to Tom, but he shrugged. There seemed to be a passing resemblance between him and the young, blond male corpse. It would likely work.

The man moved the large truck about five hundred feet forward before coming back and starting up the van. Tom grinned now understanding why the fuel had been drained. There would be no fire so his wallet would be intact. He only hoped the deceased man they picked as his stand in was believed to be the real Tom Swift.

"If worried, man meaning for you is your tallness, about your weight and blond hair with eyes blue. Will pass for you!"

He placed the foot of his body double on the accelerator and shoved it down until the engine was roaring before putting the van

into gear. The van lurched forward picking up speed so that by the time it hit the truck it must have been moving at about fifty miles per hour.

It crumpled so much Tom worried it must have crushed everyone to the point of not being able to be identif—ahhh. He suddenly realized the truth. That was the point!

Now the small man handed Tom a motorcycle helmet and pointed to the bike. He put the helmet on and painfully slung his left leg over the seat behind the other man.

They roared off, pain shooting up Tom's body from his hip until he almost passed out. He didn't because he was afraid he would fall off.

Ten minutes later the man pointed to a road heading off to their right.

"Is road to Tiskolun. Have only fifteen minutes ride to your freedom!"

They reached the border and the guard station that looked very similar to a fruit and vegetable check station when going into California. The only difference was the armed guards.

His driver reached into a pocket and handed Tom a new wallet with a passport stuck inside. "Give them this," he commanded.

When their time came the guard at their lane motioned with his machine gun for them to get off the motorcycle. They did. But, the check of their credentials lasted just a minute before the man inspecting them smiled and said in Russian and in English, "*Horashow*. Good. You go now."

The road changed from potholes to be driven around to a smooth and recently repaved surface. They drove only five minutes before exiting into a town the driver identified as Dubasari. Several more streets passed by before he pulled into a neighborhood and into the driveway of a trio of apartment buildings.

Ten minutes later Tom was on the phone to Enterprises requesting the *Sky Queen* and giving them the coordinates of a nearby field they should set down on.

"Want me to pass the word you're safe, skipper?" Red asked.

"Not right now. I'll do that privately once I'm on board. Thanks."

The *Queen* must have run at top speed because less than four

hours later Tom was on board having thanked his contacts in Moldova and was heading home. He'd been given food and drink and a pain killer he believed was a take on aspirin.

Doc Simpson had come with the jet and he insisted Tom be thoroughly checked.

"Mostly the left hip, Doc, but go ahead."

The SimpsonScope showed there was a hairline fracture in the hip socket so Doc wrapped Tom's hips with a very large elastic bandage. He gave the young inventor a pain shot that took away nearly all the discomfort and suggested Tom just lie there for the duration of the trip.

Bud dropped into the small sickbay fifteen minutes later.

"You had us all frantic, Tom. Especially Bash. Want to call her?"

"Yes I do, but is Zimby okay? And can I have a replacement TeleVoc pin, please?"

Bud reached into his shirt pocket and took out the pin. "Generic as it hasn't been matched to you, but it'll work, And, Zim landed safely near the town of Tours. In fact, pinpoint into a small river where he got wet up to his armpits, but otherwise is fine." He left Tom to make his call.

"Oh, thank the heavens, Tom!" she yelled. "Is it really you; are you alive?"

Tom laughed. "Of course it is me and I'm alive, Bash. Just had a small accident and it took a couple days to get to a place I could call for help."

"I must tell Sandy and mother Swift and father Swift and—"

"Bash! Hold on. There is something very political about to happen and spreading the word I'm alive might ruin it. Do not call anyone. I'll call dad and that is it for telling anybody until I am back in Shopton. You get the kids ready and meet me at Enterprises in three hours. Oh, and by the way, have I told you how much I love you?"

"I love you, too, Tom!"

By the time they landed, the Russian-controlled government of Ukraine had made a sad announcement that the body of Tom Swift had been burned almost beyond recognition in a jet crash inside of Ukrainian borders.

"His identification was found with the remains of the body only

in good enough condition to see his name and face on his license."

Regrets and a number of other politically correct statements were made with the promise to expedite the return of him and the jet remains, also incinerated for the most part, as soon as possible.

It was broadcast on every station across the United States with some networks bringing in "experts" to discuss both Tom and the political situation in Ukraine, and how the inventor's tragic death might impact the stock market.

After some serious hugs and kisses with Bashalli, a hug and kiss from his mother and again from Sandy Swift-Barclay, a hearty handshake that turned into a hug from his father, and many, many handshakes from employees, Tom stood in the Communications department's main studio, three cameras pointing at him and the floor director giving him a five-second countdown.

George Dilling had arranged a direct feed to the major networks and a shared digital feed for any individual station that wanted to get the official statement from Swift Enterprises.

When the floor man got to one finger and pointed it to Tom, the inventor took a breath and began.

"Hello. As was once said the stories about my death have been greatly exaggerated. I am alive and well and standing in the studio of Swift Enterprises. It is Tuesday the twenty-first of the month and other than a bruise that happened when my jet crashed—at least that part of the announced story was correct—I am well. While the facts have been greatly manipulated by persons in Ukraine for reasons I cannot understand, the truth is I was on a test flight in a new aircraft that suffered a breakdown I now believe was sabotage. My copilot bailed out over France and I tried over the next forty minutes to regain control, and to look for a safe place for the jet to crash land.

"I managed to get some control in time for my fuel to give out, and the jet made a rough, but by no means fatal or even devastating to the airframe landing. There was no fire because there was no fuel to burn. The last I saw only one or two of the landing gear had collapsed.

"It is also true that my identification was left in the jet as I pulled my way out. I generally take my wallet from my pants and put it into a cubby hole so I am not sitting on it." Here, he smiled encouragingly.

"I am not an expert in politics, but I will assume that the

governmental officials who claim the jet burned and that they recovered *any* body, much less mine, will be taken to task and that serious questions will be raised both directly between the Government of the United States and that of the ruling party in Ukraine as well in the august body of the United Nations.

"For identification purposes," and Tom glanced at his watch, "it is just now three-fifteen and forty-seven seconds on the twenty-first of the month. So, please believe me when I say I am alive, I walked away from a bad, no power landing in Ukraine and managed to hitchhike across the country and into Moldova where I was picked up by one of our jets and brought back here. Oh, a press conference so that a large group of people can see me in the flesh will be scheduled for tomorrow about eleven in the morning. Thank you."

When the cameras were off, Tom turned to Bashalli and said, "Let's go home!"





## CHAPTER 12 /

### TOM AND THE FAT MAN

THE PRESS Conference was attended by more than three-hundred reporters accompanied by their video and sound crews, most of who requested permission to fly directly into Enterprises. One of the runways was put to use as the parking place for about fifty jets of various sizes.

Many had gathered in New York the evening before and had chartered eleven jets for people and a pair cargo jets for equipment. The rest were business charters. They had been given permission to land and deplane passengers and equipment at the civilian terminal on Enterprises' grounds and that they could set up there as the conference would take place right in front of that building.

An even larger number had requested that the press gathering and any announcements be put off by at least a day, or that *special* arrangements for specific, private coverage and/or video conferences with personal interviews be granted before the rest of the world watched the live event.

**“It is what it is, and occurs *when it does*,”** statements went out from Communications under George Dilling’s management to all with individual requests or even a few demands. **“Come only at that time to get your stories.”**

When Tom appeared at the podium with the sunshine lighting him perfectly, a rousing cheer went up from the crowd. He walked without any noticeable limp thanks to another pain killing shot Doc administered fifteen minutes earlier. He spoke for almost twenty minutes giving details of his flight, the eventual hard landing and his *single-handed* escape across what he believed to be about one-hundred miles.

At no point did he mention his rescuers believing it might put Yara and her people in jeopardy.

"The people who stopped for me mostly wanted to know if I was from America and if the little bits of what they see on television about us are true. Some wanted to practice their English with me and were very open to me correcting sentence structure and some words. I do not believe anybody recognized me and if they got too insistent on where I was from I told them Canada.

“But, and I need to stress this, until I got to within a half mile of the border it never crossed my mind I might have problems. Please understand I cannot tell you any great details, but I managed to get across by feigning some sort of head injury. I was directed to a doctor in Moldova that fixed me up and helped me call back here for evacuation help.”

The following half hour was filled with answering question, some asked by multiple individuals until Harlan Ames stepped to the microphone and informed the gathered reporters that from that point on, anyone asking something already answered would be asked to step out of the crowd and escorted back to their aircraft.

“Tom Swift does not have the time, nor should he be expected after his ordeal to keep hitting the same points just because a few of you either cannot be bothered to listen to anybody else, or worse, have been told to get *your* question in so your bosses can say, ‘Our reporter, insert name here, personally asked Mr. Swift, blah, blah, blah.’” He nodded to Tom and walked off the platform.

From that point on the questions were more precise and non-repetitive. At the end, Tom thanked them for coming and suggested they take advantage of refreshment inside the terminal before flying back to their own cities.

He stepped down the rear steps of the platform and drove back to the Administration building where he went to the large lab he kept down the hall from the shared office. There, he pulled Bashalli into his arms, hugged and kissed her promising to be home in about two hours.

“Real hours or Tom Swift hours?” she asked with a smile.

“Real ones, I believe.”

After she left he pulled out the design plans for what his mind had already decided would be the best starting point in the development of an invulnerable space suit that could handle the horrific conditions to be found on Venus.

He smiled fondly at the sight of his first, second and third generation Fat Man deep diving suits on the pages before him. He knew they could withstand the pressures to be found on Venus, but perhaps not the temperatures. That, he knew, would take some sort of reinforcement or coating or even making them from an entirely new material.

He would likely need the suits to be double-hulled with substantial cooling in between.

Damon had come in to take a look at Tom's preliminary designs and told his son he insisted on at least one thing.

"You must provide for at least a full twenty-four hours of air, power and cooling in whatever you build. I know you believe it is a one-hour mission, but do your father—the man who will be keeping this little expedition of yours a secret from your wife, and I say that because I know damn well you're going to insist it be *you* heading up—anyway, do me and you a favor and put in an air scrubber plus enough of a tank of pure O<sub>2</sub> to last that long."

Tom gave his father a smile.

"I have actually, you will be happy to know, been working on a new type of air scrubbing system using a special pump and membrane combination to capture the carbon dioxide and then draw that into a separate container where it will come back in a pressurized tank. It's the sheer amount of oxygen needed for that extended period that is going to take some time. I was figuring the trip down to take up to two hours and wanted to have a four-hour reserve, but twenty-four? Yikes!"

After the older inventor left, Tom sat back and looked at the three sketches he'd already put on paper the previous week for unmanned robots.

One was more a mini-tank with an extendable arm. It looked a bit like a small excavator sold by several heavy equipment companies. Just take the planned five-point grabber off the end and put on a scoop and he smiled at picturing it digging out a pit to place the bottom half of the Venus Probe into.

He stopped smiling when it hit him this actually might be something to look into.

But, his eyes soon went to the trio of designs that looked like one-man variations of his *Crab* with two arms and "hands" where he believed they could fly down using repelatrions, grab onto the probe and lift it back up before flying into orbit and rendezvous with whatever ship he took out there; the *Challenger* or the *TranSpace Dart* would be the two likely candidates.

It was the fifth one he kept looking at with more interest than he had in the others. At least at this point. It had several design elements in common with an early space capsule, the Gemini, in its shape and would have the ability to land, tail down, extend an armature to do the work, and have sufficient fuel to take back off when finished.

But, no matter what he envisioned, or tried to envision, his

mind kept coming back to the simple egg shape of the Fat Man deep diving suit and a one-man crew.

With its pantographic arms and legs that reacted to foot and hand input from the pilot inside, it could walk over most surfaces, and even skirt around things that it could not pass over. Of course, that was underwater where the bulk and weight were reduced. But, he now thought about it, a small repelatron on the bottom where a camera had once been placed could tune itself to the surface and press up making the suit weigh very little.

He would, of course, need to find a spot for the camera, as it was the only way to see down to what the suit might pass over.

Such a suit would incorporate stronger arms to grasp and lift the probe, and they likely needed to be able to extend to—. Tom had to stop and think just how far they might need to extend. He moved from the drafting table to his desk and called up the basic specification for the probe. Those specs had required a threat from Peter Quintana to the NASA director before they would part with them.

So, the probe stood, when erect, nineteen feet, nine inches. The two fuel tanks were held in place by four tubes of about four inches diameter that ran straight up until the middle of the upper, liquid hydrogen, tank where it began to curve inward until it attached to the middle of the upper, scientific package with its eight camera and sensor ports.

The two antennas could be discounted in their current positions; there would still be ample places to grab hold of. He looked at a photograph of the probe as it stood upright in the clean assembly room before being encased in the cowling that would protect it during launch.

His belief was he needed to grab the probe at a point just above the upper tank and then to lift it. With a gravity nearly ninety percent that of Earth, and the empty weight of the probe listed at twenty-seven-hundred pounds, he'd have to extend the arms about twelve feet—assuming the “shoulder” joint were sitting at about eight feet up from the ground.

For stability, he might need to have the legs allow the compartment above to lower to the ground and spread out a little.

That, he told himself, was to be looked into the next day, and he went home.

He was back at the drafting table by eight the next morning making notations about everything he felt would need to be part

of the device.

*If, he thought, this is like the Fat Man, then it is going to need to be bigger by perhaps as much as fifty percent! Wow.*

"What if I use treads under the suit instead of legs?" he asked Bud as they sat having lunch in the cafeteria that noontime.

"You're thinking of something *like* the Fat Man but not actually a Fat Man, right?" He grinned.

"Yes," Tom replied taking a bit of his roast pork sandwich.

"So, putting aside what it will be using for transportation, what is this new Fat Guy going to be made from?" Bud asked as he watched Tom put a 3D "skin" over the thin frame structure. They'd finished their meals and gone back to the large lab next door to the main office where Tom showed Bud his designs.

"Not anything we have right now, flyboy," the inventor told him, "but I have an idea for a new alloy made from high-chromium steel, aluminum and a dash or two of titanium and silicon dioxide. I'm thinking of calling it alumisteel or steelanium. What do you think?"

"About the alloy or the name? Your names stink, pardon me for saying so, How about metaluminum. Or, shorten that to metallumin. It's something I once read in a science fiction book by some guy named Dickenson or Dickerson. Something like that. The name sort of stuck in my brain."

"Okay," Tom said slowly, "but what was this *metallumin* made from?"

"I've got zero idea, skipper. But, given that end bit I'd say some aluminum. And, some other metals. Might as well be your mix!"

Tom thought a moment before it hit him. "Wait, Bud. Are you mixing up the planet of aliens in the book and movie *This Island Earth*? That planet was Metaluna."

Bud shook his head. "No, different book and not a movie, yet. Too bad 'cause it's a really good story."

Tom had to think. An alloy of aluminum and titanium would be nearly enough to not melt or soften in the Venusian heat. It would, however, need something else. Perhaps one of the other known high-heat resistant metals such as cobalt or molybdenum. Even tungsten could work. He'd avoid the heavier things such as steel and iron.

His solid suit would need to provide for some mobility, much like his Fat Man suits had all those years ago. That would mean joints—and joints would be more apt to have heat problems, so they might require some sort of internal cooling system.

He could see the suit becoming larger and larger.

“Whatever I use is going to need to withstand the atmospheric pressure, the great heat and remain free in its ability to move the arms and legs. It’ll need a cooling system like no other I’ve ever seen or built. And, according to a dictate from dad, it will need to be able to operate on the surface for at least twenty-four hours!”

“Jetz! But it surely won’t take that long to go down, lift the thing upright and then skedaddle back. Or, will it?”

He saw the inventor shaking his head, but the look in Tom’s eyes told Bud his friend was about to take a little mental trip to the place the flyer had once dubbed, “Inventorville.” With Tom’s eyes now fixed on something he was seeing inside his mind, Bud got up and left the lab quietly after leaving a note:

Let me know when you are back...  
If you need to talk anything out, T-pin me.

When Tom had first gone into a state of such deep concentration the world around him disappeared, it had scared Bud. It had also scared Tom’s son, Bart, the first time he witnessed the phenomenon years later.

“Is Dadda dead, Momma?” he’d asked.

Bashalli was used to these episodes so she explained that the boy’s daddy wasn’t dead, but he is far away inside his head.

“That’s funny. Momma. Daddy’s crazy,” he asserted with a giggle at the absurdity of it, and Bashalli couldn’t disagree with him at these times.

Tom TeleVoc’d Bud once he returned with an apology.

“Not a problem, skipper. I figure if I have nothing to do, I stay to see how long it takes you to come back. Today, however, I needed to run some figures for the most recent month’s test flights of the various aircraft we fly. By the way, that new aircraft your dad commissioned, the one you and Zimby had your little problem with over Europe, is on its way back. I guess the Ukrainians or Russians figure since you embarrassed the bejeezus out of them they ought to play nicey-nice and let us send a transport in. They’re claiming they mistook another crashed jet for yours.”

Tom chuckled at their thin effort to backtrack. “How’s it looking?”

“From the video I’ve just seen pretty much as you said that woman who helped you described. Left and nose landing gear crushed and detached and the left side of the horizontal tail stabilizer is bent at an interesting angle. Jake thinks it’ll take three weeks to replace everything and do a structural analysis, but then he’s asking me to take it on an abbreviated version of your extended trip to test everything out. We’ll all know more when it lands in an hour.”

He paused a moment before adding mischievously, “Without, of course, the shoving of poor Zimby out the back and into that river!”

Even with his hip still giving the occasional twinge, Tom laughed before ending the call.

While he had been in his deep concentration mode, he’d come up with one possible solution, at least for one part of the suit.

For cooling purposes and as a reservoir for the extra oxygen he would require, Tom would design his suit or vehicle with a triple wall.

Wall number one, the outer skin, would be made from his new alloy—once he got that developed—and would be coated with both tomasite spray as well as inertite. Several layers of both, in fact.

Between that outer wall and the middle one would a layer of insulative material.

Between that and the inner wall would be about an inch of space he would fill with liquid oxygen under pressure. At minus three-hundred degrees Fahrenheit it would be nearly a solid and just below its boiling point where he hoped it would remain until needed.

With an expansion ratio of nearly eight-hundred-sixty to one, even that relatively small amount would be sufficient to meet his father’s demands for spare O<sub>2</sub>.

The final, inner shell would be a combination of a solid surface on both sides with a honeycomb of insulating cells between to keep the cold from impacting the inner cabin too severely.

For the hip and elbow joints he’d circulate the icy cold gas through a series of tubes to those locations before it came back and could be used for breathing purposes.

With that sorted out he returned to the shape and mobility of

whatever he would build.

This was assuming that NASA, or the U.S. Government, came through with the funding. If they did not, this was an exercise in partial futility. But, not entirely.

Tom realized that anything he came up with might have future possibilities so he never threw away even a preliminary sketch he did not use for one project.

Both he and his father were thankful for digital storage as their combined “not now” paper files would have filled enough boxes to take up four-fifths of the large office, floor to ceiling. Perhaps more.

He looked at the Fat Man, or as Bud called the Fat Guy, again with increasing interest.

Controlling such a suit was mostly a known quantity with himself and at least eighty others well acquainted with the original suit’s controls. The only differences might be if instead of legs he did incorporate some sort of treads—although he worried about the extreme heat and what materials useful treads might be made of—and the addition of repelatrns.

Those could probably be made to run automatically once the suit was on the ground, but the operator might need to override that and set the repelatrns at odd angles to account for the lifting weight of the probe.

So many things to think about. He saved everything and went home early.

Bashalli was more than happy to see him and rewarded his early appearance with a very nice kiss. Then, she gave him a bonus kiss and suggested they might have take-out Chinese food that evening.

Tom enthusiastically offered to not only make the call but to go pick it up.

Even though it was only four in the afternoon she agreed but did suggest they wait until about 4:45 to make the order.

“It will be ready by five, and if you take Ponderosa Drive to get there you will miss the majority of the rush hour traffic,” she said. “While you are gone I’ll get the kids ready.”

Over five white boxes filled with steamed dumplings, mu shu chicken, beef and snow peas, chow fun noodles with a black bean sauce and pork fried rice rather than the traditional white rice, he and Bashalli talked about what he was designing.



Bart, who had mastered the art of chopsticks at the age of just four dug in with his while Mary used her favorite spoon.

Bashalli listened with growing anxiety that he was about to tell her he was going off on a horribly dangerous mission. She tried to keep a pleasant and noncommittal look on her face, but as he described the heat on Venus, she broke down into tears and left the dinner table.

“You both eat and be quiet,” he told the children before going after her. She was in their bedroom upstairs laying on the bed sobbing.

He said quietly from the door, “Bash. I’m not suggesting that I go. And, even this whole thing revolves on outside funding. If that does not happen, the suit doesn’t either.”

From her face down position, she sniffled and asked, “Really?”

“Really,” he assured her coming forward and sitting on the side of the bed. He reached out to stroke her hair a moment before she turned over.

“Tom. I can’t lose you. You have to stop going away from me and Bart and Mary. Every time you get involved in something like this you get hurt. You crash or have someone knock you over the head or... well, something bad.”

He held his wife tightly and told her he would not put himself in harm’s way. “It isn’t worth it these days.”

Then, he reminded her the first thing to try was the revamped *Crab*. Only if that was a dismal failure would the new suit be finished.

They went back to the table a few minutes later.

At work the next day, Tom put his revised egg-shaped suit into the CAD computer and gave it both shading to make it appear to be rounded, he also gave it the multiple layers of “skin” so each one could be studied and computations made.

He also made a fairly detailed interior just to check for enough space for all the systems, power, air circulation and the pilot—whoever that might turn out to be!

As he sat back looking at the finished product, he felt it needed a name, and probably one that Bud did not have a hand in, give his usual puns.

Tom knew the one-man spacesuit/spacecraft would need to be

practically invulnerable, and so he made a note: Call it the  
*InvulnoSuit!*

“ARE WE REALLY going back?” Bud asked excitedly. “I mean, it was dangerous and all that, but it was one of the most fun times I think we had back then. Action, mysterious wisps of something, things that dissolved in the night, Chow doing his bucking bronco impression on that zebra...” he paused with a grin recalling the sight of their cook holding onto the mane of the striped beast trying desperately to not fall off.

“Yes. About the only place on Earth I can think to give my *InvulnoSuit* a good test are the caves of nuclear fire in Africa.”

“*InvulnoSuit*? You’re not going to let me take a crack at naming the thing?” the flyer asked with disappointment in his voice. “I mean, I was only going to come up with something like the Venus Egg, or maybe Venus on the Half Shell? With deep regards to that author Philip Jose Farmer and his book of the same name.” He smiled hopefully.

“Sorry, flyboy, but this one is mine. Make you a deal, though. You get the next two for the price of this one!”

Bud grinned and accepted. He left a few minutes later and Tom returned to his desk and computer where he was putting the final touches on the *InvulnoSuit*. He didn’t have very long to wait before his next visitor.

After a quick knock on the office door, Harlan walked in and sat down in the conference area.

“Join me?”

Tom got up and came over.

“I’ll make a guess you have something that involves me. Is that it?”

The Security man nodded. “Yes. It is about the FBI’s final report on that explosive device placed under the wing of your small jet. They lifted a print from the wing from the adhesive near where it had been attached and matched it to a man who checked into the Construction Company’s computer. You do know we now require a thumb and fingerprint these days?” Tom nodded. “Fine. He is listed as having checked out but the guard can’t remember him specifically going out the gate. The Bureau says the man came

in under the name Alex Filbert visiting a woman in the Metals Fabrication department. She claims he was a friend of her brother who had called to ask if she might show the man around a little. Given that the request seemed to come from a family member, she agreed.”

“Seemed?”

“Yes. When we checked with him he stated he never heard of the man nor had he called. He was shocked and asked if there had been damage to anyone or anything. I only told him of an attempt at sabotage and he said he would pay for just about anything in order to keep his sister from being suspected or fired. I told him it was minor, but that his sister would be suspended for about a week while we look further into this affair. Which we are doing as I sit here.”

Before he left, Harlan asked to speak with both Tom and Zimby on another matter. Tom TeleVoc'd the flyer and was told he could be there in ten minutes. He arrived in nine.

“It sounded important. Oh, hello, Harlan. Hope everything is hunky dory in Security Land.”

“Mostly, but I have a question for you both. Did the two of you ever check out the access hold in the tail? The hatch past the bathroom that gives inside access to the suitcases and such?”

Tom shook his head as did Zimby.

“Thought so. The reason I ask is the FBI finished with the jet Tom took in for the difficult but ultimately non-destructive landing in Ukraine. Your appearance before they had the chance to torch the evidence was one of the best breaks we had. You see, there were multiple traces of DNA in the front seats.”

Tom nodded, “Right, and that would be me and Zimby and perhaps the corpse they dragged in hoping the ashes would be accepted as me.”

Harlan was smiling but shaking his head. “Yes, and also a definite no. You see,” he continued seeing the surprise on both the others' faces, “I believe there was someone else in that jet when you took off. We found traces of blond hair in that access hold and on the seat back that does not match Tom's.

“But,” Zimby protested, “that would be the dead guy. Wouldn't it?”

Harlan shook his head. “On the copilot's seat? Matching several hairs we found back in the storage hold? and—and here is where I

deserve a drum roll..."

Zimby shrugged but obliged him with a rapid, "thrrrumpa-thumpa-thumpa-thumpa-thumpa-thump," sound.

"Also matching a small piece of hair we found attached to the damaged part of the little jet from weeks and weeks ago! Embedded in the glue used to stick it to the wing."

Tom gave a low whistle. "Hurray for DNA!"

"Who is it and how did it get on the copilot's head rest?"

"Well, Zimby, Tom barely remembers landing that jet, right, skipper?"

"It's true. I was in a real fog inside my head. It started about ten minutes after you jumped, Zim."

"The stowaway, a man by the way, got out after Zimby bailed out, moved forward and then my guess is he injected you with something to befuddle you, slipped into the copilot seat and tried to land, but his sabotage in the back, cutting a few too many wires, meant he had dumped most of the fuel and had to dead stick it. He didn't have the option of where and so I bet he barely got out before your rescuers arrived, and might just have slipped back into the rear hold!"

Tom tilted his head to one side. "So, you're saying that we took our own worst enemy with us from... here?"

Harlan nodded. "Yep. You did and you got him out of the country where we can't get to him. Our only hope is in his failure he found he will suffer some sort of very wicked punishment."

Five weeks later the *InvulnoSuit* was nearly finished. If Director Williams had anything to say about it, it would have magically appeared in one afternoon. He was, to say the very least, an anxious man.

NASA had finally and begrudgingly come up with nearly five-million dollars in funding to see the suit built and tested. They were still working on the additional monies to mount the expedition to Venus.

The suit turned out to be nearly twice the size of a first generation Fat Man, had a trio of legs—two for mobility and one at the back for stability—along with the trio of small repelatrons spaced in between the attachment joints of the legs. Together they were able to lift the suit into the air, which would be mandatory

for getting down safely and returning to the mother ship.

For testing purposes, Bud insisted he, not the inventor, take the suit up about five-thousand feet over Lake Carlopa and the hills surrounding the area. When the nighttime flight came, the suit preformed better than expected. The hand control gloves doubled as joysticks when turned ninety degrees and this allowed for all flight controls including speed.

One of his tasks was to see how it operated with only two of the repelatrons working; it could maintain altitude but not climb much faster than a hundred feet per minute.

Bud managed to get it up to over three-hundred miles per hour in horizontal flight with all repelatrons working and Tom felt a wave of enthusiasm come over him as Bud climbed out at the end of the flight with a small grin on his face.

“I’d say she’s ready for the torture test, skipper,” the flyer said with a bright smile.

The flight in the *Sky Queen* three days later included a team of people to assist in the tests along with Bashalli and Sandy Swift-Barclay who both wanted to make certain it was not their husbands who climbed into the suit for the dangerous walk into the caves.

Bashalli was still stinging a little from the feeling Tom may have lied to her, but she did have proof the *Crab* was very close to completion so believed that would be the first object to go to Venus.

“There is so much we need to pre-test on this first version,” he told her during the flight. “This one isn’t able to go up there but I need to know how the materials and coatings work. Those are also important for the robot!”

The great jet headed not for the country in which the mountain lay, but the neighboring nation of Ngombia, a small and friendly country who readily accepted the idea and issued an official invitation for the visit. It was unfortunate that the actual mountain lay inside a national boundary of a country that now was particularly unfriendly to any Western “interference” as they put it.

It would be relatively easy to sneak in for the tests as long as they remained on the ground. Nobody in the country now calling itself The Democratic Nation of Folami—named, ironically, for the current dictator on the country—would venture near the mountain.

Folami meant, when Tom looked it up, “He who demands respect!”

Ngombian officials came out to the small landing field where the *Queen* touched silently down and asked if they could make a brief inspection. They were more interested in foods, like fresh vegetable, brought from outside their borders that might contain pests than in anything else.

Chow took them to the refrigerators adjacent to his small kitchen but when they saw that everything had been peeled, cubed or shredded, and stored in vacuum bags, they agreed there was little for them to do other than to impound the four pounds of fresh apples he’d brought along for people to snack on.

The chef reluctantly gave them over and was happy when they offered to replace them with a local fruit with many of the same flavor and texture characteristics.

“We call them Opella.” They turned out to be a relative of the North American apple only more elongated and with a smaller core. They were also slightly tart.

When he tried one later that day, Chow smiled broadly, gave his thanks to the woman delivering them and offered to even pay for them. She would take no money from him and stated she could bring more the next day if desired.

“Shore, but lemme pay fer these,” he insisted.

She reluctantly took his offered five dollars worth of the local coinage.

He decided to use two pounds of them to make an Opella pie for dessert that evening. It went over enormously well as did his main course of a succulent roast pork shoulder.

Everyone settled in for the evening a little early.

“So, skipper,” Hank Sterling asked as they all sat in the lounge the morning, “are we going to have any issues going into Folami?”

The inventor shook his head. “Likely not. You see, with the legend of the deadly gas and disappearance of most people sent out over the years to investigate, plus a good dose of fear and local superstitions, it remains off limits to their people, even their military and police. So, we’ll use the two trucks that we brought over to take the suit and its pilot, Slim, to the mountain, everyone sits inside while he flies up just far enough to step into the cave and we wait. I figure a two-hour first test should be followed the

next day with a five-hour one, and finally a ten-hour test.

“Of course, the suit has many sensors outside and in to tell us if anything is starting to have issues and we recall the suit immediately. Got that, Slim?” He was looking straight at the pilot who had volunteered to be the man inside.

“Skipper, you know me. Mr. Overly Cautious. Of course I’ll vamoose if anything seems out of whack!”

Chow looked appreciatively at the pilot. He liked anybody who use some of his favorite words like vamoose, skedaddle, and hissy fit.

“Great. Then tomorrow morning we leave here at dawn, take the sort of road they tell me goes to the border and from there we can see the mountain and will pick out our route.”

“I believe Bashi and I will check out the local market scene,” Sandy said, and Tom’s wife nodded her agreement. They came back three hours later with some local baskets and jewelry for themselves and for gifts.

The remainder of the day was spent, by Tom, checking the Invulnosuit over from top to bottom.

Everyone else played video games, watched some television and movies, and generally lounged around.

When they rose at seven it was raining slightly, something the country needed and there were tarps on poles all around the airfield sagging with the collected water that was just now being siphoned off into a series of old plastic hundred-gallon tanks on the backs of even older pickups.

Tom knew it would slow their drive a little but hoped, for the sake of their hosts, it rained enough for them to have some water to spare. He made a note to talk to their ruler about outfitting them with a few ERBs or endless Rain Barrels, devices that collected moisture from the surrounding air, purified it, and stored and dispensed it.

The suit was already strapped down and covered and sitting in the smaller truck on the compacted surface of the landing field. As they climbed in and started to move, Tom noted the field was holding up without making much mud or getting soft. This continued into the surrounding jungle area.

It was, because of the lack of annual rainfall, more like a forest filled with trees that put down very deep root systems and were able to absorb moisture from rains like today through their leaves.



It was fairly sparse and not at all lush.

It took three hours to reach the end of the road where a simple fence made of the local wood had been stuck into the ground. They found it easy for each vehicle to skirt around the ten-foot-wide fence sitting in the thirty-foot-wide clearing. They made it into Folami territory and were soon on their way through some thicker jungle woods.

It was slower going than before, but with only two miles to go, the five miles per hour headway they were making was not overly aggravating to anyone.

With no warning at all, the trees disappeared. They were in a great circular clearing around the nearby mountain as if someone had spun a rope around them from the middle with a great device to remove all vegetation on the end. Only at the very periphery were small grasses even to be found.

Tom called a halt and gazed at the mountain he'd visited more than nine years ago. Then, it had seemed to be a huge structure, thrust upward by nature millions of years ago. Today he could see it was barely three-thousand feet tall and as former volcanoes go, it was rather narrow at the base; perhaps it was barely a thousand feet wider as it was tall.

Over the truck radio Tom told everyone to close the protective suits they'd put on before heading into Folami earlier.

"Check your air supply and the one of your partner," he told them all. "We will be going about to the half way point between here and the start of the rocks before Slim goes for a ride. Slim? You climb into the suit once you are checked out and do all the preliminary checks inside that. I'll let you know when we unhook you and it is safe to fly."

From past experience Tom knew the form of radiation coming this far from the nuclear cave was so short lived that Slim would receive a minimal amount on the outside of his protective garment and that would pretty much expend itself in the first three or four seconds inside the *InvulnoSuit*.

He'd wait a full minute once he got inside before opening his helmet and taking off his gloves so his hands could operate the control gauntlets. His covered feet would still fit into the footholds.

Everyone reported readiness so Tom told Slim to get out of the main cab—followed quickly by the three people in the back seats who would ready the suit for flight—and then climb up into the

bed. He was up, the suit uncovered and he climbed the short ladder to the entrance hatch in seconds. Like the original Fat Man, the hatch was a clear dome on the top that swung open and closed on a rear hinge. Slim stepped over the edge and lowered himself into the seat pressing the hatch's **CLOSE** button as soon as he was seated.

By touching a certain spot on the very modern wraparound control monitor in front of him, he activated that panel and the entire flying suit. One by one the status lights across the top blinked on red, then orange as the tests began and finally a bright green indication of everything with that part of the suit being in fine operating condition.

The first thing to attend to was getting out of his helmet and gloves, followed by activating the air circulation system and then leaning back to go over in his mind what the full operation would be.

"I'm nearly ready, skipper," he reported a minute later. "All greens and the air is moving around me nicely. It is, as you told me to expect, a little cold what with being from the liquid O<sub>2</sub>, but the heater circuit you added is kicking in and it ought to be fine in a minute. Repelatrons report they have a lock on the truck bed so they are taking the weight now."

"Report when ready to lift."

"Roger. And that would be about now. The suit and I are ready."

Tom smiled at Bud sitting in the next seat. "Okay, Slim. You are detached and standing free. Go for lift."

Turning around in his seat the inventor watched as the suit lifted until the feet disappeared above the back window before turning to the double monitor he'd mounted on the dash. The left one showed a shot from a camera mounted to the truck's roof that would follow the suit automatically as it headed for the mountain.

The other one showed a look of what the pilot was seeing on his forward monitor.

The five occupants of the truck watched as the suit flew over the start of the mountain, a line of volcanic rocks that seemed to suddenly begin as if the whole thing had merely been set on the ground. Nowhere was there a hint of previous lava flow so Tom believed the mountain had grown from internal pressures but had never erupted.

As Slim swung around to face the cave opening he reported,

“You probably are watching this, but I’m a hundred feet from the mouth of the cave. Sensors are showing nothing nasty coming out, but I guess since it is low tide, and Tom discovered the high tide causes water to flow into the big chamber and make for the bad gas, that I’m more safe than it will be later.”

He soon set down at the entrance, which was just tall enough to allow the suit to walk inside.

“Looking good, skipper. The lights you installed are really bright and showing off everything... uhhh-ohhh... do you all see that?”

Tom looked with dismay. Someone had tried coming into the cave only to be partially dissolved by the naturally corrosive gases. Next to the body sat a rifle and canteen that had both apparently not been affected. The more Tom looked the more he became convinced those were both things he and his expedition had left behind all those years earlier. Even the rifle—something they’d brought over the strenuous objections of his father, had been coated in the inertite liquid and that explained that.

“Leave it be, Slim,” he suggested. “Probably someone who heard about the mysterious mountain and decided to see if it was all it’s cracked up to be. Unfortunately, he or she found out the hard way.”

He was at a loss to understand why the body had not fully disappeared and now worried the phenomenon of the caves might let him down.

Perhaps, after all this time...

As Slim moved forward his hopes rose as the cave started to get hotter and hotter. Soon the outside temperature registered six-hundred degrees and was rising.

“In case it is striking you why that body is still there,” Slim said over the radio, “you don’t see what I do in the rear camera but there is sign of some sort of protective suit under the body. I’ll get a better shot of it later when I am stepping out.”

“Please do and see if you can get the arms down far enough to bring back a sample of the fabric... and even a bone for DNA testing.”

“Will do.” The suit continued forward until everyone could see the glow of the nuclear pit ahead. Slim stepped forward until he was within six feet of the opening at which point Tom told him to stop. He extended one of the arms out and used the built-in camera to look down into the deep pit.

It was an eerie moment for the inventor and his friend who had both been deep down there and almost never came back when all but one of their support cables parted from the intense heat.

Out of boredom over the next two hours Slim walked around the open area above the pit and even found something the boys never had. It was a small hole in a back wall that opened up to another cavern of some fifty feet wide and perhaps eighty or ninety feet tall. The ceiling seemed odd to the test pilot.

“Looks like a trapped gas bubble created that at some point,” Tom observed seeing the domed roof.

At the end of the first test period Slim came back out, getting samples that would be given to the FBI for testing, then exited and raised the arms to wave at the distant trucks and their occupants, and lifted off. He landed with pinpoint accuracy in the back of the truck and waited to be given the all clear to exit.

After he came out and climbed into the cab the trucks made u-turns and headed back to the *Sky Queen*.

There, Bashalli hugged Tom and looked at him. He smiled and pointed to Slim.

“He did it, not me, sweetheart!”

It made her smile.

Tests two and three went off without a hitch—even when the temperature at high tide got up to nearly nine-hundred degrees—giving Tom and the entire team headed back to Shopton a sense that if and when the time came, the *InvulnoSuit* would perform perfectly on Venus.

The body in the cave had disappeared between the first and second test.

## CHAPTER 14 /

### A LITTLE MAN MAKES A THREAT, AND OTHER WOES

AT ENTERPRISES, the suit was mostly taken apart to check everything. It all looked to be in perfect condition. This pleased the inventor who asked that it be rebuilt and readied for a test trip into space two days later.

He continued to hope a manned trip to the surface could be avoided, but his *Crab*, now rebuilt and enhanced, still might not be up to the task. If it, with its semi-autonomous control and remote pilot, could not make the trip down, pick up the probe and return into orbit, he doubted anything other than the *InvulnoSuit* could.

Damon asked for a complete briefing on the tests and was particularly bothered by the death of someone who might have only been curious about the nuclear fire caves.

“There are any number of adventurers who think local superstitions are a load of bunk and set out to prove that. This person, whoever he or she proves to be, may have merely been one of that sort of person. I hope the death was not painful.”

Tom knew that the gradual dissolving of the protective suit would have started allowing some of the corrosive gases in where they quickly would have started at the flesh.

It would have cripplingly painful possibly explaining why the person had not made it out from the cave. He opted to say nothing more on the subject.

The nearly daily call came in from NASA asking for an update on the mission. “Well? When do you go?”

“Sir, there can be no full mission until we have the funding. You promised nine days ago to look into it, that you would get back to me in no more than two days, and agreed we would not be asked to proceed further than testing our vehicle until that was resolved.”

“But, I thought you’d go up and we could pay you later,” the man complained. “I have to say I am disappointed. We need that data!”

Calmly, Tom responded. “And, if you had engineered the probe to not fall over, as in having the outer cage spread the legs out for

stability, something that would have taken a good engineer about an hour to design and a team of one or two people a day to accomplish, this would be a moot conversation.”

When the man could only sigh, Tom began to feel some small pity for his position, but it was one of the Director’s own making.

“You keep working on a way to pay the extra funds for us to mount this rescue mission and I will continue the testing and mandatory improvements necessary. I will remind you of one very important thing: if you didn’t have us to try to help, you would be completely without any resource that might do anything in under a few years. If, at all. Good day, Mr. Williams.”

With the *InvulnoSuit* almost finished and tested, all Tom could do was to wait or to work on what everyone hoped would be his first line of “attack,” the *Crab*.

There was a list of fifteen things Zimby had taken as notes from his first use of the flying robot. A few were small and easy refinements, but several were going to take some time, effort and money.

Until NASA came through with the money those would need to wait.

Things that could not wait started with the older repelatrns. They had been perfectly fine for flying the *Crab* in space, and had not let things down on either the descent or the rise back to space, but as Tom read things, they would never lift the weight of the probe plus maintain altitude, even as low as that might be.

On the other side of Enterprises, in Hangar 6 where Bud kept his office, the *InvulnoSuit* stood mostly on its own legs. Certainly there was a special padded “seat” for it to sit upon that held its entire weight of some fifteen-hundred pounds—it would be about three-hundred more when filled with the cryogenic oxygen.

Bud, Slim and two of the technicians from Propulsion Engineering were discussing some of the finer control aspects and asking questions on both sides about things that might be made better.

“When I was flying it around over in Africa it seemed that turning to the right was harder than to the left and I’m darned if I can figure out why,” Slim told them all. It was Friday and on the coming Tuesday the suit was supposed to take its first flight into the upper atmosphere to see how well the repelatrns could not just hold it up but accelerate it out of the atmosphere.

All three of the propulsion devices had been dismantled and were sitting on a bench undergoing electronic testing. The four men walked over to look at the current results.

“All showing full power so it could be in the control hardware or even the software. We can check out the hardware, but it’ll take the skipper to unravel that maze of code he created.”

Bud was about to suggest going to the man himself but they all heard the sound of one of the electric runabouts as its parking brake was pulled up to the **ON** position. A moment later Tom walked in looking as if he had a question.

“Did you have any troubles with the controls?” he asked Slim.

Now a little embarrassed he hadn’t come directly to Tom with the issue, Slim nodded. “Now you mention it. Yes. Just a tendency to not want to turn to the right as much or as quickly as it responded to left turn controls.”

The inventor nodded, climbed the stepladder and leaned head first inside the open hatch, soon going almost vertical inside. His legs kicked a few times a minute later and he managed to ease his body backward and out of the top of the suit.

Clutched in his hand was the gauntlet for one of the controls and most of the others were silently betting it was the right one, but Bud thought it might be the left one that was too responsive.

Bud won the no-money bet.

“I had a feeling before we ever went over to the caves that I should have carefully matched the two, because the first left one I set out got some solvent on it and I tossed it away in favor of a new one. My mistake was not replacing them both. I can’t imagine what I’d do if my boneheaded mistake had caused you to lose maneuverability or worse, crash the suit into a wall or the ground. Sorry, Slim.”

“Gee, Tom, I meant to mention it after the first two-hour stay in the cave but was too jazzed with adrenaline to think straight, then it slipped my mind until the third flight, but I was so dog tired after that one I just curled up and forgot again. Then, when it hit me coming home, we were just changing shifts and I came into the cockpit at the same time you headed back... and out the old brain bin it went. I’m really sorry.”

“Nonsense,” responded the young inventor. “Anyone can have something small slip their mind. I’m just glad you did notice it so my trip out here wasn’t for nothing.”

He asked that someone also remove the other gauntlet saying that a tech would come over in about an hour with a brand new and matched pair of them.

As Tom drove away, Slim turned to Bud. “Can you think of any other big company where one of the very top men would come out personally to apologize for something that was not a big deal?”

Bud shook his head but he was also nodding in his mind. Of course the Swifts were like that!

Slim’s flight straight up and then into space started out at six in the morning the following Tuesday. Everything in the suit had been checked and rechecked. This time the suit would carry the full inner shell tank filled with liquid oxygen so they had a good idea of maneuverability at full weight.

Tom had climbed from bed at five with Bashalli following him downstairs after he’d showered quickly and got dressed.

“You absolutely promise me you are not going to sneak off and go to Venus and try to pick up that stupid satellite thing?” She was only partly serious.

Tom turned and took her into his arms. “Bash, as I told you last night this is just a test flight Slim Davis is taking in the rescue suit we only built in case NASA comes up with a bucketload of money to pay us to save their skins. Slim, not me, is flying up about a hundred miles, will zip around a little and then come back. If I had my say we’d do this at nine, but the FAA says there is just too much air traffic passing within fifty miles at that time, so Slim goes up at six and he comes back down at about ten.”

She looked at him skeptically. She wanted to believe her husband, but sometimes he let his enthusiasm take control of his better judgement.

“Pack the kids up and come over at eight or nine and you can see for yourself. I’ll be in the Communications building until about ten minutes before he touches back down, so tell Jennifer I said it was okay to come into the control room.”

She sighed. “No. I do believe you. It would be nice to see you then, but I know you will be busy with the flight. So, I will make you a deal. You stay with your feet on the ground and I’ll come and take you out to lunch as a reward.

“You have yourself a date,” he told her before kissing her goodbye. He finally left the house five minutes later.



Tom sensed someone behind him—he'd remained downtown after his lunch with Bashalli to pick up a few small parts and was heading for his car—but decided to not turn around. He did tense as he heard the footsteps stumble over the slightly raised crack he'd just stepped over.

A moment later there were three quick steps and then something sharp and solid was sticking in his back. He slowed.

"Stop! Do not turn around," the slightly accented voice commanded.

Tom stopped moving forward and stood still, all his muscles tensed. "I am not moving. I don't know who you are, but you can't expect to attack or kidnap me in the middle of downtown Shopton in broad daylight without somebody noticing. I'm kind of famous around here."

"I know that!" the voice hissed at him. "Surely, you must expect that if you do not speak or write to people you owe such courtesies to, you will someday get attacked for your insolence. Today is that day, Swift!"

Something the man said raised a question in the inventor's mind.

"I'm listening," he told his attacker or mugger or kidnapper wanna be.

"Surely I can see that, but do you know why you are in front of this gun and not behind it?"

Now he knew what it was about the man and the way he spoke. He surreptitiously reached up as if to scratch his ear, but briefly paused enough to tap his TeleVoc pin attached under his shirt collar.

"Harlan Ames," he silently subvocalized. Out loud he said, "So, tell me about that. I am both curious and evidently a captive audience."

"Yes, Tom," came Harlan's silent message.

As the man behind him started in on what seemed to be perched on the edge of a lengthy diatribe, Tom spoke silently with his Security man.

*"I believe I am being held at gunpoint by the man who wrote me that strange letter a few months ago. Blakely, or something like that. The one with the word surely in it several times. We are*

*on the corner of Washington and Second near the park.”*

*“We’ll be there in six minutes, but the police can get to you in three. Keep him talking and don’t let him march you anywhere.”*

*“Oh, I think he’ll be talking a lot. He seems to like being in command of the situation right now.”*

Tom tried to place the man’s accent before it came to him the voice was not coming from directly behind him. Or, at least, it was coming from a bit lower.

The accent was vaguely Hispanic or Latin American but was not immediately discernible. Portuguese?

Harlan’s voice came back inside his head. *“The P.D. says they are a block away and coming on foot from two directions on 2nd. If you can, get the man’s attention focused right on you.”*

*“I’ll try.”* To the man Tom said, “I feel as if this conversation would go a lot farther if I could look you in the eye. May I turn around?” he asked as he started to turn.

“Stop!” the man’s voice practically screeched, but at a low enough volume to not attract undue attention.

“Why?” the inventor demanded in an indignant voice. “You have the nerve to threaten me with what may or might not be a gun in my own home town? Are you crazy?”

Tom heard a strangled cry and the metallic clatter of a gun hitting the sidewalk.

He turned around to see the man on the ground, the twin electrical leads of a nearby police officer’s TASER gun running from that gun to the man’s upper arm.

Officers swarmed forward jumping on the man’s prostrate form; they flipped him over easily and yanked his arms behind him putting on a pair of handcuffs.

Tom looked down at the man who must only stand about five feet in height.

“I have the strange feeling I know who you are. Isn’t that correct, Mr. Blakely. Joe Blakely, or should I say *José?*”

In a stream of Spanish the man began swearing at the inventor, then cursing him and finally promising to extract a terrible revenge.

In addition to the inventor, at least two of the officers understood Spanish and spoke to him in that language telling him he would not be getting out of jail for a very long time and

everything he said to Tom would be presented in court.

Finally the man went sullen and refused to say another word.

Harlan, Phil Radnor and two others from the Enterprises Security Department pulled to the curb and jumped out.

“You okay, skipper,” Phil asked as Harlan went to confront the prisoner, pulling the man to his feet.

“Yeah. Just inconvenienced a little, but the Shopton policemen and you guys all came in time to save the day.”

He walked over to Harlan and told him his suspicions about the man’s name had been correct and relating what he’d said.

Blakely looked at the Security Chief in time to see a smile that sent such a chill down his spine he almost collapsed.

When the officers said they were ready to take Blakely to jail Harlan turned to Tom. “Give you a lift?”

“No. I’ve got my car just around the corner.”

“Well then, give me a ride. I have something to tell you.”

Once they were driving back Harlan said, “You will no doubt recall the body Slim found in that cave?”

Tom nodded saying nothing.

“Turns out to be a woman who had been reported missing just the day before. She’d been helicoptered in by a pilot from Namibia who said she had a sort of rubberized suit she said would protect her and to come back in two days. He came back but she was nowhere to be seen. You’d left the area by that time. And, being a superstitious man he left and did not go back again.”

Tom now looked sad. “Do we know anything about her?”

“Just that her name was Arlene Coleman, a British ex-pat living in Sudan and what the pilot said was some sort of adventurer or adrenaline junky. She paid him twice the going rate for the flights in and out.”

They rode the rest of the way to Enterprises in silence with Tom dropping his rider at the front door of his building.

“Oh,” Harlan said before he closed the door, “this Coleman woman was suffering from cancer. It had spread into her ribs ,which is the bone you brought back. May have been lung cancer or liver. It would have likely killed her within the year if this thing hadn’t. Before you ask, incurable and at that point fatal.”

The news did not help Tom feel better about the death, but

once back in the big office he turned his thoughts to José Blakely and the attack that was not an actual attack. He couldn't be certain if it were an attempt to kidnap or harm him as much as the little man simply wanted to give his speech to the inventor.

It was something that had started and finished well within five minutes and barely was worth mentioning to most people. And, by *most* people he was thinking about Bashalli.

At home that evening she innocently asked him if anything important had happened at work after they had lunch and Tom found himself experiencing a moment of panic.

Did she know? Had she driven past when it was happening or when the police were there?

He had to believe she probably did not, but to play it safe he offhandedly told her, "I ran into someone who has written to me on a couple occasions when I was downtown picking up some small parts we didn't seem to have at work. McArthur's Electronics had them. Anything strange or wonderful happen here? The kids start reciting Shakespeare or anything like that?"

Bashalli laughed. "I would not wish that on a one-year-old or a nearly five-going-on-eighteen-year-old."

Tom laughed with her and then decided to give her a tamed down version of what had happened. He told her about the disgruntled man who had come to Shopton to tell him off, how it had escalated with the police interceding and finally having to TASER the man to get him into handcuffs and off to jail.

"He will be transferred to the court system in Albany where they will likely throw the book at him as I understand he has a history of similar threatening behavior. He will never come back here!"

She hugged him and said she hoped that was true.

"I know it is. Harlan told me I'm just one of about ten people he has done this to. The authorities want to put an end to it all. So, let's try to forget it and have a nice dinner."

She smiled at him but he detected an underlying sadness in her eyes. He wanted to ask but thought it best to allow her to get over today's news in her own time.

He worried even more when that same sadness was in her eyes that night as they got ready for bed.

Dianne Duquesne in Propulsion Engineering and Linda Ming—Enterprises' expert at miniaturization of anything electronic—were waiting in the big office when Tom got in at 8:00.

“We’ve come about something Linda believes she can do with that *Crab* robot of yours,” Dianne told him after they had greeted each other.

“You find me nearly all ears,” he told them both, “but I desperately need a cup of coffee. Join me in the comfy chairs?”

As he poured himself a large mug of hot coffee, Dianne continued. “Linda says the repelatrions in the thing are woefully underperforming, but that is a result of the time and state of electronics back when it was constructed.”

Linda picked up the conversation. “That is true, Tom. I looked back through the specifications from nearly ten years ago and find that your smaller design was really meant for use in space and away from a major source of gravity. It is just by chance that the smallest we could build the units in those days meant they had sufficient, barely so, power to lift that *Crab* off the ground here on Earth. But, not very high in the air before they lost contact and would only hover.”

Tom nodded. “So, with its slightly lower gravity, the reason it was retrievable on Venus was it had just enough push to get back into orbit? I sort of knew that, but it is nice to have the experts verify it. What do we do?”

“As you know,” the Chinese woman went on, “with today’s advancements have come much smaller units used in everything from your QuietTurbines and the lifters for the HighSpace L-Evator on up. And, most small ones are still underpowered for this use.”

Tom looked confused. He’d expected they would have good news. This did not sound like that. “Oh,” was all he could say.

“The ‘Oh’ about it, Tom,” Dianne stated, “is Linda believes she has a way to, umm, *amplify* the output from some of the intermediate-sized repelatrions, and to get their electronics smaller so the end result is about the same size package inside the *Crab* with enough power to lift it plus some eight- or nine-hundred pounds. Will that be enough to pick up that probe?”

He slowly shook his head. “Possibly not. The probe weights in at more than double that. Although, come to think of it the idea is not to actually pick it up but to tilt it back upright. I’m going to need the exact amount of extra lift you can give me and then do some computer modeling to see if that is enough for a tilt. This,”

he told them, now becoming enthusiastic, “could be just what we need!”

Dianne told him what it would cost to make a prototype of the new repelatron. He thought about it a moment before telling her to go ahead. “It is something we can add to our inventory of different units in any case, so do it.”

Due to the familiarity of the Propulsion department and Linda with repelatrons, it required only three days to make the first unit.

It was obviously kluged together because the electronics were dangling all around the thing, but it was mounted under a thrust measuring device that was not just bolted to the floor or the concrete pad outside of Dianne’s workshop, the mounts went down an additional fifty feet into the ground under the twenty-by-twenty-foot slab and were anchored in a rough eight-foot ball of concrete down there.

Dianne and Linda smiled at Tom and he greeted them with a smile of his own. “Ready for the big test?” he inquired.

“Fingers crossed,” said Linda, “although when I first came to America that saying confused me. But, yes, we are ready.”

Dianne pointed to the control panel mounted on a table to one side. A box sat underneath with about a dozen ribbon cables of various widths going up and into the panel. Linda explained.

“The computer for checking and adjusting the repelatron to what it focuses on underneath it is still too large. I am working on a specialty chip set that will take that down to something the size of a pack of playing cards, but for now the computer is large and the entire thing needs a lot of power. So, that box also contains a trio of your Solar Batteries. They should give us about twenty minutes of run time.”

Crossing his own fingers, Tom moved to the panel and flicked the **POWER** switch to the **ON** position.

Tom grinned at the two ladies. “Here’s hoping...” he said pressing the button to activate the repelatron. He knew he needed the single dish to put out at least twenty-seven hundred pounds of thrust to lift the robot and the probe.

As the three watched the registers moved from zero to fourteen-hundred, then on to twenty-one-fifty, to and through twenty-four-hundred...

The meter stopped at twenty-five-hundred and seventy pounds

of thrust.

It refused to budge above that.

“Well, it is better than the earlier model, but not quite enough. Is there anything,” he asked turning to Linda, “to do to achieve more from this size emitter?”

“I’m afraid not much, Tom,” she said looking like she had personally let him down.

He was quick to spot this and told her, “This is an inherent issue with the repelatron. Unless I upsize the area for the electronics, emitter dish and even allow for greater power, I’m afraid this might not be a winner for us. Don’t take it personally, Linda. I’m sure you did the very best possible.”

Not only was Tom disappointed, he was now faced with the possibility of having to send someone down to the planet in the *InvulnoSuit* to do the work and face all the dangers that would entail.

He turned everything off before asking, “Could we replace the repelatrons in the *Crab* with the larger ones I’m using in my *InvulnoSuit*? They need more space, of course, but since this really isn’t an absolute final shape I might make a larger case that can accommodate more inside.”

Dianne looked at Linda who looked at Tom. “Sure, but the larger ones really need a larger power supply. Your suit has a nuclear power pod inside—under the seat—and there isn’t enough room in the *Crab* for anything that large. Give us a day to toss things around. Okay?”

He agreed and left them to take the test equipment back to Dianne’s workshop.

Harlan was holding for him on his phone when he got back to the office. “Only been on a half minute, Tom,” Trent told him.

“Hey, Harlan. What’s new?”

“The what’s new is that the man, Joe or José Blakely, is actually an escaped criminal who, over the past eleven years, posed as a scientist, an inventor, a corporate executive, an attorney and a police officer all to steal items or money from various companies. His real name is Byron Barrette, hails from Toronto, and doesn’t have any sort of south of the border accent at all. In fact, he is French-Canadian and holds a huge grudge against companies in the U.S. he says have been stealing French-Canadian ideas for centuries.”

“Oh, boy! Another crackpot?”

“Pretty much. TV? A French-Canadian idea stolen by the U.S. and given to the Scotsman, John Logie Baird. Suspension bridges? Again, we’re the bad guys but gave the idea to Isambard Kingdom Brunel in England. The Macintosh computer? Stolen from a Frenchman and handed to Steve Jobs by the CIA. But, here’s the clincher. The Wright Brothers? Actually American Spies from the Revolutionary War who absconded with secret French-Canadian plans for a bi-plane and waited more than a century to go public.”

“So, more a nutcase than anything?”

“Enough of both a conman and a person who needs to be locked in a padded cell for the rest of his life to get special attention from the U.S. Government. So, he goes away for... well, forever as far as he is concerned. We shall have no more troubles unless he starts a letter campaign to you. Then, I’m alerting the mailroom to strain those out and send them directly to me.”

Tom gave an inward sigh of relief. Now he could honestly tell Bashalli that little episode of bother was very much over.

If only telling her that the idea of the unmanned *Crab* might fall through could be so easily addressed.

Bud had taken one look at the new shape of the shell on Tom’s CAD computer and dubbed it the Fruit Blob. It was, admittedly, pear-shaped. Very much so. Tom, shaking his head, told him to come up with something that was less likely to be laughed at and more likely to get nods of agreeing on its name and mission.

The flyer stood looking at it for five minutes. Next, he turned it around slowly on the screen.

“Looks pretty much the same from all angles, doesn’t it? It’s vaguely... you know... fruit shaped. Except for that arm on top.”

Tom could only agree.

“Okay. *Retriever One*. Sounds sort of like something out of an English science fiction program or one of their puppet shows. And, on top of that it says just what it is supposed to do!”

“You’ve come through in record time, Bud. *Retriever One* is will henceforth be known.”



DURING THE two weeks it required to make a trio of the upsized repelatrions for the newly rename *Retriever One*, Director Williams had been noticeably absent on the phone. He had neither called to ask for an update, nor provided information on funding, nor had he called with new recriminations trying to cajole the Swifts into mounting the rescue.

Peter Quintana had been able to furnish Damon with a little insight into this change during a video call.

“He has been given his marching orders. Get the probe upright and working in sixty days or tender his resignation, and those of the top twenty or so people on that project. It got through the heads of some of my colleagues that the probe was never properly designed for eventualities such as this one.”

“Did they take into consideration it was a Senatorial demand they launch this year or else get the whole thing defunded?”

Peter snorted. “Are you kidding? That would mean a politician admitting they’d made a horrible mistake in judgement. The likelihood of that—”

“Yes. I know. Infinitesimal at the very best. Does this mean there will be no funding to pay for our time, materials and services to go affect the rescue of machine and careers?”

“Well, that is still to be hammered out, and there will be penalties to NASA for the money they need to pay to you. But it is known that Enterprises has been actively working on a rescue mission despite only partial payments and many promises. I believe we will do the right thing as long as you are certain it stands a better than, oh, eighty percent chance of success? Nobody is going to want a guarantee, but it needs to be close to certain.”

“Let’s bring Tom in on this conversation. Hang on a minute...” and Damon TeleVoc’d his son to find out where he was.

*“Well, if you are in the office, I’m down the hall talking to Chow. Need me?”*

“Yes.”

He walked into the office a minute later.

“Hello, Senator,” the younger Swift greeted the floating face of

the man in Washington.

“Nobody here but us, Tom. I was telling your dad about the NASA situation *vis-a-vis* money and how the Senate Select Committee on Special NASA Funding—one of mine—will be voting in a day on additional money to cover the Swift end of this Venus kerfuffle. I told your dad we need an assessment in percentage of success from you. Can you give that to me?”

Tom discussed using the *Retriever One* and how it likely held about a fifty-fifty chance.

“Oh. Not so good. How about a manned mission? I do happen to know about that suit you took to Africa last month. Nothing bad and nothing official. Can it do the trick?”

“The *InvulnoSuit* can make it to the surface, with the recent additions and changes, and is built for grasping and even tilting the thing back up. The problem arises in the actual surface. You see, the suit can’t lift the entire probe off the surface to re-set it in a better spot. If we tip it up and it is too uneven under one or more of the pads, there’s nothing to be done about it.”

The next half hour was spent discussing whether there was any alternative.

The bottom line according to Tom was that they could finish both *Retriever One* and the *InvulnoSuit* if the final three million dollars could be paid and then head to Venus with the first one for a quick try at the repositioning.

“Then go for it, and take your back-up with you,” Pete said.

“The manned suit is a matter of some great debate. I’m afraid I am about the only one I can justify placing in that sort of danger, and if I go I may come back to a broken marriage!” Tom told him about the stress between him and Bashalli over his placing himself in harm’s way. He added that the suit could not be properly safeguarded taking their fast ship, the *TranSpace Dart*, but would require the slower trip in his *Challenger*.

“That will make her even more stressed, sir. And, it is in need of five or six weeks of finish work.”

“And, after the payment?”

“Yes. After that.”

When he called back the following noontime, Peter Quintana had some disturbing news for Damon.

“I could not get the idiots I work with to see reason,” he began.

“The vote in committee was six against and five in favor. I’m afraid that NASA won’t get another cent off these short-sighted fools unless the Venus Probe can be, as one particularly dimwitted man put it, ‘Resuscitated.’ He and some others think it is just a matter of pressing some hitherto undiscovered or unmentioned button somewhere in the bowels of NASA and the thing will jump right up and start doing what it was sent to do.”

He sounded particularly bitter. In truth, he was.

“Listen. For the money you have been paid to date, is it possible to at least take that robotic up-righter thing of yours and give it a try?”

Damon wasn’t in the mood to be very cooperative, but had to admit they had received enough funding from the space agency to pay for all of Tom’s work on *Retriever One* plus monies for the actual mission plus a small amount left over. That, of course, included the money spent to date on building and the first tests of the *InvulnoSuit*, but he did not mention that to the senator.

“Peter, here is the deal. We have the robot, we call it *Retriever One*, and it is just about ready to go. I can authorize the mission back to Venus with it, but there is no way to also put in the manned suit in case the unmanned part is a failure.”

With NASA funding having dried up—even before they had made the final of three payments on the first part of the project—Tom was tempted to throw in the towel and refuse to do anything. Their contract stipulated that until all payments had been made, Enterprises owed the space agency nothing. No materials, no services. With more than two-point-eight million still due, Tom knew he would not have to turn over his *InvulnoSuit*.

He definitely would not have to turn over the *Retriever One* as that was wholly the property of Swift Enterprises.

With Bashalli’s ultimatum weighing heavily on his mind, Tom turned back to *Retriever One*. Could he satisfy her by letting Zimby take it out again and try to hook onto the Venus probe and pull it upright?

His father could be of only minimal help in the matter.

“If she is saying enough is enough, then you have to go with that, unless you plan on living separate lives and only have visitations with the kids on weekends,” he counseled. He looked at Tom as if seeing him for the first time. “Son? You are stressing about a problem someone else allowed to happen because of their

shortsightedness. Nothing, and let me repeat that important word, *nothing* is to be gained by putting yourself, or anyone else for that matter, in jeopardy!”

“I know, but in my heart I also know NASA has done so much good in a lot of every day areas, and if they fail with this Venus project, they may well go under. And, as the Director once told me, that probe is supposed to be testing and checking for seismic activity that could cause great damage to that planet. If a piece breaks off it will likely be dragged into the sun, with all the known possible flares and other consequences. Or, it might be forced off at an angle that could impact here, the Moon, Mars or who knows where.”

Damon looked slightly stunned. Tom had never mentioned the seismic aspect of the probe’s mission. Neither had anyone else.

“Let me get this straight. Someone or someones believes there is a chance that Venus might break apart from earthqua... well, Venusquakes?”

Tom nodded. “I thought you knew. That’s why I’ve been working on a couple possibilities. The *Retriever One* was and is number one to try. The suit is only the fallback.”

“Then, my strongest possible suggestion is that you let the same team that went out last time go back with *Retriever One* and try as many times as they are able to get that probe upright. You do not go. You go make certain your wife knows that she is more important than someone else’s hunk of electronics!”

Starting that very afternoon, Tom redoubled his efforts to get *Retriever One* ready to go. He worked closely with Dianne and Linda to make certain the new repelatron would have enough power. This included adapting the shell one more time to keep everything inside including the nuclear power pod that he’d ordered built at the Citadel, the Swift’s nuclear power research and generating facility in New Mexico.

His instructions to the manager out there had been, “We can accept an upsizing of about ten percent on the outside of the case, but no more. What I need is about double that same percent increase in power; I need nearly twenty percent more and the only way I can think to get that is to fill the shell a little higher with the reactive gel and the lengthen the rods that dip into it.”

“But, Tom, won’t that mean there is always power coming out since the rods will no longer be retractable and will sit, at least in part, in the gel all the time? How do you intend to use that power or shunt it away so there is no internal pressure build-up or

explosion?”

The young inventor had been giving this some thought, so he was ready with an answer. “We are going to put a power plug inside that will hook into the ship’s power system and batteries. When it is making that extra power it helps run the ship, but once the *Retriever* undocks, it will all go to the repelatrions and they are plenty thirsty!”

Once he received the final power output range, he excitedly ran to see Dianne. On the way he TeleVoc’d Linda asking her to join them.

The three poured over the diagram of the power curve and all three had smiles on their faces by the time they’d finished.

“It is beginning to look as if Christmas is coming early this year, at least for us. Here’s a hope that we can do what NASA wants, Tom,” Linda mentioned as the meeting broke up.

Tom headed directly back to the big office to tell his father they had a solution to the underpowered *Retriever*. Damon listened carefully and told Tom, “Then by all means once you get it assembled around this larger capacity power pod and find a way to channel that excess power while it is being transported here and to Fearing for attachment to the *TranSpace Dart*, then call the Director and tell him the possible good news. I want you to stress it is only a *possible* solution; do not play it up at all to him. He has only another two weeks before he is gone and who knows what will happen when a new Director is in that chair.”

“What if we can’t get there in that time? Do you think Mr. Williams will be given even a short reprieve?”

“I’ll suggest that to Peter Quintana when I see him in DC tomorrow. We’re meeting on another matter but this will be the first thing we discuss.”

The power pod arrived complete with a special device that used as much power as the device was making; it was a high-energy capacitor feeding into a thermal laser system that pointed into space and discharged a blindingly bright green lance of light about every twenty minutes. The *Sky Queen* had always had an observation dome on top made from clear tomasite, but that had been replaced by one of shatter-proof glass so the energy of the laser could travel through it unhindered and unreflected.

It was the *Sky Queen* that would also transport the finished *Retriever* to Fearing Island two days later. During the flight the

power lead that trailed back to the hangar at the rear of the aircraft would simply get plugged into the robot before too much energy built up inside.

Tom calculated they would have about eighteen minutes from the time the bare pod was last discharged until it needed to be hooked back to the system. So, final assembly would take place not in some clean room or even one of the assembly halls; it would take place in the *Queen's* hangar.

This meant everything had to be preplanned down to the second. Tom asked the assembly team to gather in the back of the giant jet the morning before anything would be done to run through the entire process. *Retriever One* was there along with a sphere representing the power pod. That was filled with water to give them some idea of the weight they would be handling.

A special sling had been built to attach to the overhead hoist and that would cradle the pod allowing in to be raised enough to get over the top of the robot and into it.

The overall height they would need to accommodate was just four inches shorter than the ceiling of the hangar so it would be a very tight fit indeed.

The first practice try took far too long and had ended with the sphere being set inside the case at a strange, unusable angle.

"It's okay," Tom assured the discouraged 5-person team. "This is exactly why we are going to practice this enough times to get everything right and in time."

Practice run number two was within the specified time, but the sphere had to be tipped and shoved to get over the top so much that it rotated to an angle making inside connections impossible.

"We're going to keep having that trouble," he told them, "unless we get some more head room. I wonder..." and he walked to the back of the hangar and looked up from the extended launch/landing platform that came out when the back doors were opened.

"Dianne? Can you come here a moment please." When the woman was standing next to him she also looked up and then back to him, grinning.

"I believe so," she said answering his unasked question.

"Everyone, take a break. I have to call for some more equipment.

Twenty minutes later a portable hoist had been brought over and was sitting behind the hangar. The special sling was attached

to its dangling cable, and *Retriever One* had been moved and strapped down to the extendable platform.

The inventor worried about anybody accidentally falling off the platform, but a word to them all had them being especially careful where they stepped.

The third run through was managed with three minutes to spare—thanks mostly to the previous two runs—with the sphere setting down within a few degrees of perfect.

“Congratulations everybody. I’d like to do another run to see if we can repeat our success, but assuming that goes well I believe we are ready for tomorrow. The *Queen* will make a morning run to the Citadel and come back around three in the afternoon. I’d like us all to be ready to drop what we are doing when we get the thirty minute announcement. George Dilling is arranging for us to all get a TeleVoc message when that time comes.”

As most of the people drifted away, Linda Ming stayed behind.

“A moment of your time, Tom?”

“Sure. What’s up?”

She told him the special chip set she had designed for the repelatrions had tested out just fine and she had two extra sets built by the people in the Electronics department.

“They are sitting on your desk in the shared office,” she told him.

“Great! I got the new shell from Hank this morning and tried a dry fit. Perfect, as expected, so all that has been missing are those chips. This shell, by the way, is slightly smaller than the final one so I believe we’ll do a practice tomorrow when the time comes to make certain we can all adjust to that one. Thanks!”

To allow Tom to continue working on last minute details, Red Jones and Bud got up early and flew the *Sky Queen* out to New Mexico where they picked up the power pod, allowed the technicians there to make the connections with the heavily insulated power leads going from the hangar to the observation dome and then left the pod to do its first discharge.

“Holy Mosses!” Red exclaimed as he rubbed his eyes. The brilliance of the laser—lasting just one-half of a second—had been like having a flashlight shown in someone’s face after being in a dark room for twenty minutes.

Bud, knowing what was to come, had watched through nearly closed eyes. It helped but he, too, had bright spots in his field of

vision.

They took off two minutes later after notifying the FAA of their flight path and the fact they would be discharging the laser periodically.

*“Roger that, Swift Queen, and we have a slightly different route for you to follow that will keep you at least two-hundred miles from most other aircraft until you get back to your home airfield.”*

The woman gave them the new route information, which Red wrote down before verifying everything.

*“Exactly, Swift Queen. Happy flight!”*

The flight details had been intercepted by at least one news agency who quickly hired a fast business jet in which they piled two cameras and operators, a sound engineer and one of their more adventurous reporters.

Somewhere over the state of Missouri, the Chicago-based jet pulled up to about 39,000 feet, nearly 30,000 under the *Sky Queen*. Bud spotted them on **RADAR** and told Red to, “leave ‘em in our dust.”

The giant jet scooted ahead now at nearly Mach-2 leaving their pursuers behind them by more than two-hundred miles when the next laser shot happened. Because of the angle between aircraft, neither camera caught that.

The jet returned to Chicago’s Midway airport with nothing other than a bill for seven-thousand dollars to show for it.

Bud giggled most of the way home imagining the surprise of the reporters who had made the mistake of announcing their approach and desire to get ‘a glamour shot.’

The *Queen* landed at Enterprises nearly forty minutes early, but everyone was there who would perform the power pod move. Red touched them down about fifty feet from the spot things were set and a small ground tug hooked up and backed the jet over to the team.

The nearly ready-to-go *Retriever One* was raised to its position on the extended platform and the team gathered around it. The sphere was rolled—on its cradle—to the back, the sling was set around it and tightened, and the transfer began. It ran smoothly until Tom noticed something was not aligned. He called an immediate halt and stepped forward to access the situation. It was obvious the pod was off center and told everyone to stand by while the scheduled discharge happened. Luckily it had not been



disconnected from that system yet.

When time came to move forward, everything went well and smoothly, and *Retriever One* was soon powered internally and ready to go to Fearing Island.



WHAT HAD once been the almost cockroach-shaped *Crab* was now fairly pear shaped and had enough room for both the three-place array of larger repelatrions plus the small power pod that would be capable of powering them for an up to three hour mission on Venus. If brought back up and allowed to to-recharge overnight, it could repeat that same mission time.

Along with a new shell vacuu-formed by Hank Sterling from the same triple hulled materials used in the *InvulnoSuit*, the more powerful repelatrions and power pod were joined with the original claw mechanisms from its former life.

Tom had saved the original shell and would attach a new set of non-working claws so the model might be returned to the museum. Even if it were no longer functional, he had a soft place in his heart and would hate for the *Crab* to completely disappear forever.

Finally, it had a power pod inside and was being readied for transport to Fearing Island where it would be attached to one of the large fins on the *TranSpace Dart* for its three-day trip back to Venus. This time it would be flown down by Zimby Cox to be used to hover next to the Venus probe, latch onto one of the handy frame rails using its extendable arm, and to lift the thing back upright.

Tom had only one worry and that had to do with the two antennae attached to the rails and now, evidently—as seen from the first pass the *Crab* made—to be slightly under the fallen craft. If this was true, they likely had been damaged and fixing that was far beyond what the *Retriever* could manage.

The only thing wrong at the moment was that several of the systems inside the *Retriever* were suddenly reporting faults.

This was going to delay the rescue attempt.

Tom spent three hours in the hangar of the *Sky Queen*, often upside down inside the new shell of the robot, as he painstakingly checked each of the systems.

On schedule, he hauled himself out and stood by as the power pod discharged its excess power. During the day this was not much or a problem; the people of Shopton were used to strange happenings, lights and noises coming from within the walls of Enterprises.

But, he had hoped to be gone before it turned dark.

George Dilling came to his assistance by issuing a notification to the three television and four radio stations in town and the cable company. They posted special notices every fifteen minutes on their channels notifying everyone that a special laser light might be spotted periodically that night and it was nothing to worry about, just normal doings at Enterprises, and to please not drive out there.

The FAA also was notified to reroute aircraft around the area where the shaft would shoot skyward periodically.

“I told them we’d have it gone by tomorrow noon,” he told the young inventor. “Hope that wasn’t too optimistic.”

Tom shook his head. “No, George. I think I’ve traced the problems and will have things fixed before nine tonight. Then, the *Queen* will lift off and take the robot to Fearing and its forthcoming trip. Thanks for the forethought and those notifications!”

The problems turned out to be in the chipset for the new repelatrans. Linda Ming was beside herself over what she believed was her mistake.

When Tom came out of the *Retriever*’s shell around six, she was standing there, hands clasped in front of her, head down.

He climbed down and approached her.

“I must offer my apologies, Tom, for this grievous mistake. If you wish I will resign.”

Tom laughed. “Oh, Linda, if I had offered to resign each time I’ve made a small miscalculation, I’d have never been allowed to set foot inside these walls back when dad was building the place. Forget it. What I think happened was we all underestimated the amount of power these chips need to deal with. I have some new numbers and if you are willing to work with me tonight and tomorrow, I think the chip folks can get to manufacturing the new chips on Friday.”

She looked into his eyes. “What about the robot?”

Tom looked back over his shoulder at the pear. “I’m sending it out to Fearing tonight. You and I will go out on Monday or Tuesday with the new chips and run all the necessary tests.” He motioned to someone behind her. “Jack? Get the shell strapped in really good and tight. Red and Bud are leaving in thirty minutes.”

“Will do, skipper!”

Tom held up a finger to forestall any questions from the Asian woman. He then pressed his TeleVoc pin and let the two pilots know

they were wanted back at the *Sky Queen*.

“You’re in the air as soon as you both get settled in your seats.”

“*Okay on that, skipper,*” Bud called back.

Red told him he was just finishing a light snack but would be there quickly.

“Don’t choke on whatever you’re eating. This isn’t a time-tight schedule. I just want you two to get the chance to be back before nine tonight. It will go a long way to making Mrs. Bud a happier woman and that will make Bud’s life easier.”

Even before the giant jet took off, Tom and Linda headed for her office and design computer.

She sat down and called up the diagrams of the power management chip. “I’m assuming this is the culprit,” she told Tom.

“Probably, but I want to check the other chips as well. Oh, there!” he said pointing at one area that was separated from the rest of the chip by extra long traces. “Is that the power circuitry?”

Linda agreed that it was. She then zoomed into that spot and soon they were looking at the entire area—barely a square millimeter in the actual chip—completely filling her fifty-inch monitor.

Tom had a very good knowledge of microchips, but had to ask many questions about certain areas and their functionality in the overall chip. It required a full hour but he finally sat back and smiled.

“I would have to believe that are you are zoomed in on right now is where things have gone... slightly less than planned. What do you think?”

Linda looked at the area of crossing traces and areas representing transistors and even several micro-capacitors.

“Yes-s-s-s,” she said slowly. “I set the chip to be able to handle up to plus two-volts and now I’m thinking that was the mistake. The other circuits must be putting out more than one-and-a-half times that. No wonder the chips worked for a time and then failed.” She seemed so miserable about the apparent mistake—what Tom tried to convince her was just an oversight—that she sniffled and he could see the traces of a few tears running down her cheeks.

“Linda? This is something we can fix, so if the emotions are from fear of reprisals, they can stop. If they are from relief we likely will

get this fixed easily, then go ahead.”

She turned in her seat, eyes brimming with more tears, and nodded causing them to spill out. “More emotions over having found the mistake,” she admitted. “Thank you, Tom, for being a very understanding man.” She leaned forward and kissed his right cheek gently before turning back to her desk and taking several tissues from the box to her right.

They made the necessary changes over the next hour, put the “chip” through a test program that worked as if all the chips were under full load, and were happy to see everything checking out.

After sending the new design to the manufacturing team, and double-checking----- the other two chips for their power specs, they left for the evening.

To avoid too many questions about the occasional discharge of laser light, Bud and Red headed first directly to the east and out to sea ninety miles before turning south for Fearing Island off the Georgia coast. At Mach-2 they made the trip in a little over eighty minutes setting down on the concrete landing pad and aircraft parking area near the combination Administration building and general offices with the control tower set a dozen yards to its left.

A team of technicians had been practicing for this delivery that day and swarmed up the extended ramp and into the hangar. They had all the straps loosened and mostly disconnected before the two pilots got down to the lower level and back to the hangar.

“I’m sure Tom let you know that you have a limited amount of time to get the thing connected to a discharge point, right?” Bud asked.

“Sure did, Bud. We’ve got a discharge battery assembly just outside and it’ll take what the power pod sends out. We are waiting for the next discharge before we start.”

With a look at his watch, the flyer told them they had about four minutes.

Within a few seconds of that time everyone closed their eyes and over the island flashed bright green for less than a second.

After that the techs dismounted the *Retriever* from its cradle, slid a pallette lifter into the hangar and under the robot and lifted it outside all in under a minute. The special discharge battery—larger than a refrigerator—was waiting nearby and its cable was taken up and inside the *Retriever* during the next minute.

“All hooked up and happy,” the tech told the two pilots.

After radioing back to Enterprise to tell them the delivery had been a success, the *Queen* lifted back off and headed for home.

Tom invited Linda to come to Fearing Island along with Bud, Bashalli and Sandy for the installation of the new chips the following Thursday. It had taken the chip manufacturing team longer than expected to prepare the thousands of traces, transistors and all the other parts of a microchip before they were satisfied with the template. Tom did not attempt to hurry them or even to give them an idea of the schedule that now had gone out the window. It would do no good to try to get things going too quickly as speed generally meant failure in the creation of specialty chips.

“We’ve made you ten sets of the chips, skipper,” the lead manufacturing tech told him handing him a trio of foot-long antistatic tubes each filled with a different type of chip. “Each set has been tested in a new circuit board and to the power standards you supplied us... plus a twenty percent overload. All work just as planned.”

“Good, and thanks for the quick work,” he said causing the man to roll his eyes. He well knew it had required a couple additional days but he also realized Tom was giving him an out so no apologies would be expected.

That night Tom told Bashalli he was inviting her to come along for the trip out to Venus.

“I want you to see we are only taking along the robot and that I will definitely be remaining inside at all times,” he told her.

Sadly, she shook her head.

“No. I need to trust you and will not hang around looking over your shoulder.”

He could see in her eyes she was really trying to not be afraid for him, or for her and the children.

Things seemed to be going at a good pace and the takeoff in the *TranSpace Dart* was scheduled for Saturday.

However, there was a problem. The tall, needle-like ship didn’t have the ability to accept an outside power source without drilling into her hull and breaking the integrity.

It was something Tom had worried about but had put to the back

of his mind until Friday when he received a call from Fearing.

“Sorry to give you this news, Tom, but we can’t find a way to rig the *Retriever* to the fin mount points and get the excess power inside. We’ve tried a lot of things but keep coming up with a negative. Even attempted to rig a laser discharger to the ship and the robot, but that would mean having the thing open to not only the atmosphere here but to deep space cold.”

Tom groaned causing the technician to add, “But, we can mount it to the *Challenger* and use the solar array connection to pump power into the repelatrons. That connection point is inside the hangar with the passthrough sealed into the hull. We can use the passthrough and hook right into the ship. Oh, and the robot fits inside with inches to spare top to bottom.”

Knowing it would lengthen the trip by at least ten days, Tom told the Fearing man to go for that solution. Then, he called home to tell Bashalli the news.

“You can still come with me if you’d like,” he offered her. “In fact, I’d like to have you come along. You can have the small office as your stateroom and besides, I think you will be fascinated with what Venus looks like close up.”

She didn’t say anything for nearly a minute before stating, “No. You go and promise to come home quickly. I will spend time with your sister and we will both worry about you and Bud.”

“We will leave tomorrow, so I’ll be home tonight. And, you can change your mind right up until we take off from Enterprises.”

Bashalli came to Enterprises to kiss Tom goodbye and to wish him the safest journey possible. “You come home to us. Do you understand me?”

Tom stood back and saluted his wife before taking her in his arms and saying, “I promise and will obey you, Bash. As I told you last night this trip is going to be about two weeks, but I’ll call home around eight o’clock every night to give you an update.”

She kissed him passionately and then hugged him one more time before he climbed into the *Sky Queen* and took off three minutes later.

Up in the cockpit Bud waited for his best friend to arrive.

“Hey,” Tom said swinging into the pilot’s seat, “I didn’t see you out there saying good-bye to Sandy. In fact, I didn’t see Sandy. What gives?”



“My darling wife had an appointment this morning. She left about seven to drive down to Albany, going down to see a specialist to try to find out if a new medication might help us have a baby.” Bud shrugged.

He and Sandy had been trying to have one since they got married, or even a little earlier if Sandy’s mention of it to her mother had been true.

So far, nothing had come of it other than a deep frustration on her part. As far as Bud was concerned he knew what she wanted and would be happy to adopt a boy or a girl, but Sandy wanted to exhaust all other possibilities before they looked into that.

Tom placed a hand on his brother-in-law’s forearm and gave it a squeeze.

“Mom says Sandy is ready to give up on the idea of having one of her own and telling you she wants to look into adoption. Give her a few more months and I think she’ll surprise you!”

When they landed about two hours later—they had only come down at about Mach-1—*Challenger* sat on her take-off pad looking ready to go.

They took off a half hour later with the inventor noticing the storage banks for energy to power the repelatrions, was at slightly more than one-hundred percent.

“We’ve had to lift her up a few hundred feet every hour to bleed off the excess,” Zimby explained as they left the atmosphere. “The computer says we can travel at full speed out and back using that extra power.”

The trip, scheduled to take six days going out, was finished with an hour to spare. The ship went into orbit two-hundred miles above the planet and everyone took advantage of a mandated eight-hour rest period.

Things would get very busy the second when *Retriever One* was released.

Tom dropped the *Challenger* into a slightly lower altitude and made seven orbits of the planet below while the crew made final checks of *Retriever One*. With each rotation he Bud and Zimby discovered more and more things about the surface and the state of the probe sitting on the volcanic-hot surface.

“When do we go down?” Bud asked believing that he already knew the answer. “And, how far does *Challenger* go? All the way?”

“We only go down a little way, Bud. This wonderful ship isn’t cut out for the conditions on the surface, so we only go as far as the one-hundred mile point. That’s when we launch what you will track as Zimby pilots it. I’d like to think *Retriever One* will get down there, pick the probe up and come back quickly, but there you are.”

“Okay, but I thought this ship was pretty much invincible. Why the high orbit?”

“If we took this ship any farther down both the heat and the killer pressures would soon play havoc with everything.”

“I’ll bet you’re glad,” Bud said, “it’s just the unmanned ship and not you going down, right?”

Tom nodded. “Yeah. I promised Bash that I would not put myself in harm’s way even though I have the suit ready back home and it would protect me for long enough to get down there, put that probe upright and get some new support wires attached and anchored and get back inside.” He sighed. It had been a, “This way or I’m gone before you get home,” threat he realized she would keep.

Ten minutes later he made the decision to start the descent.

As the ship eased down into the very upper part of the scorching atmosphere, and the camera views cleared, Tom and the crew got their first good look at the hot, harsh conditions they faced many miles below.

What had been partially obscured by the swirling, violent atmospheric conditions now came into near clear view.

It did not look at all promising to any of them.

“What’s that atmosphere made of again,” Hank asked.

“More than ninety-six percent CO<sub>2</sub>, a bit of nitrogen at about three and a half percent, sulfur dioxide, some small amounts of water vapor, neon and even helium, plus a lot of trace elements. It is toxic, caustic and at over eight-hundred-seventy degrees on the surface, instantly deadly. Stepping out unprotected would be like sitting nine hundred feet from a nuclear bomb exploding.”

He turned to Bud, “What’s our altitude?”

“One-hundred miles on the button.”

“Prepare the robot ship,” Tom ordered over the PA system. “Ready, Zim?”

“As much as I’ll ever be. Ready to go!” He pulled on his 3D goggles and adjusted the strap.

When they had been in high orbit, *Retriever One* had been

moved to the outer deck of the *Challenger*; it was partially autonomous needing only the necessary codes to turn on, do all its self-checks and release itself just before heading down. That was when Zimby would take full control.

Tom programmed the absolute coordinates into its computers so it could touch down within the necessary fifty feet of the toppled probe and do what it was designed for.

He told Bud to go into a hover over their current location.

The only thing to do was press the **START** button. Tom's thumb hovered over it for a few seconds before pressing down.



*RETRIEVER ONE* picked up speed as it began to drop away from the *Challenger*. Everyone watching monitors held their breaths as it seemed the repelatrions ought to have started, but it was all in their heads. Right on time a green light came on Zimby's control panel indicating a control lock and the robotic vehicle immediately slowed down.

"Everything's looking good, skipper," Hank called out from the telemetry station. "She's at ninety-seven miles and encountering a bit of turbulence, but nothing the computers and Zimby can't compensate for."

Concentrating so much he could not spare time to speak, Zimby nodded.

"Good. Keep a close watch on those bumps and shoves. If they get too close to maximums hit the call back button. I'd rather make a second or even a third try than lose it," Tom called over to his pilot.

The buffeting slowed as the atmosphere became thicker. It was like the high-altitude jet stream on Earth.

"Grunt if you are ready for us to go back up a little higher, Zim."

"Yep!"

Tom told Bud to set the controls to take them higher and to maintain their match of the rotation speed of the planet below. He intended to remain straight above the Venus Probe while Zimby maneuvered down to that location and prepared for the clamp on and lift attempt.

It was now he was glad they were in the *Challenger* and not the *Dart*, which would need to orbit.

"One-hundred-eighty miles," Bud announced sparing Tom from taking his eyes off the controls.

"Okay. We'll stay here for now," the inventor decided and soon had everything locked so the computers could take over direct control of the ship. "First sign of any overheating outside or us getting knocked about and take us back to two-hundred miles."

Leaving Zimby to concentrate on piloting, Hank called out the

altitude of *Retriever* each ten miles of downward travel.

“All telemetry looking very good, skipper,” he said when the probe slipped below fifty miles.

The silence in the control room of the ship was palpable, but even Bud realized this was no time for jokes or even humorous comments.

“I’m detecting a little heat buildup on the outer rails, Tom. Taking the ship up. Zimby? Will that cause you any problems?”

“Nope. I’m below the worst turbulence and unless Hank says otherwise, I think *Retriever* is in good shape. Go ahead.”

With a confirming glance to Tom, who nodded, Bud slowly gained altitude until four minutes later he reported them at two-hundred miles out and the heat was dissipating.

“Good,” Tom responded to the report. “Keep us here. Zimby? Before you go much lower I want a complete systems check made. Report anything out of whack.”

Four minutes later the pilot had nothing to report other than, “She’s doing very well. That LOX layer inside is keeping everything at very workable temperatures. I’ve cycled the arm and it is moving freely and reports everything is still go.”

*Retriever* continued its downward journey with Zimby slowing it at five miles above the Venusian surface.

In Shopton, Marjorie Morning-Eagle called for Tom. Finding he was not in the office—or on the planet for that matter—she asked to speak to Damon.

“Tom ordered another Mars habitat building and I’m guessing that is not news to you,” she said.

“No. You are correct. Haz Samson up there asked for another one so they can put in a large park,” he told her with a little chuckle. “Now they are starting to have a few children, everyone wants more space for just moving around and even getting away from the crowd now an again. Plus, I think having a play place for the kids is important. Are you calling with a question or were you wanting to tell Tom you’ve finished the thing?”

“Second one, Damon. And, I don’t want to spoil my own record, but I promised this to the kid for delivery as of more than a month ago. He knows the reasons for the delay, but I feel like a fool for it taking this long. So, what should I do?”

“With the habitat, let me arrange for it to be taken up. As for my son, he’s been so busy I’ll just casually mention that I took care of that while he was away and leave it at that.”

By the next morning, things were underway to get the *Goliath*, Tom’s huge, repelatron-powered lifting spacecraft—the one on which each of the previous habitats had been taken to Mars, ready for the trip. With its massive repelatron powered by a trio of nuclear reactor pods and its wide cargo platform, it was just about the perfect spaceship for the job.

With Tom, Bud, Zimby and Hank off to Venus that left Red, Slim and Art Wiltessa as primary pilots and Dwayne Dimmock as a watch-keeping pilot.

The on-load was accomplished as usual with *Goliath* being flown to Enterprises and a trio of cranes lifting and maneuvering the tightly rolled inflatable and setting it over and around the central control spire that poked up from the dead center of the cargo deck.

*Goliath* lifted from the tarmac late that night, headed into space at a very slow rate so as to not build up too much turbulence ahead of or behind the ship, and, once out of the atmosphere, accelerated to top speed before they had passed the orbit of the Moon.

The trip, given Mars’ position retrograde—behind that of Earth—meant a eleven-and-three-quarters day trip out and a twelve day trip back with one day given to the offload.

By the time Tom and the *Challenger* crew returned *Goliath* would nearly be to its destination.

Zimby was still dropping the *Retriever* but at a greatly reduced rate since it reached three miles above the Venusian surface. It was down to just five miles per hour and would be slowed even further when the craft reached one mile from the surface.

Hank kept up regular status reports mostly centering around the heat. Even with the liquid oxygen cooling jacket the internal readings from the lifting arm had recently climbed into the one-hundred degree range.

“I think we need to go a little faster, Zimby,” he stated, “unless Tom has another thought?”

“No. Hank’s right. Let’s get down and get this done and the *Retriever* back up before too much heat infiltrates the joints in

that arm.”

Zimby increased the descent rate by reducing the repelatrions. In three more minutes it was in a hover at one-hundred feet from the surface and about three-hundred feet to the north of the Venus Probe.

Lying on its side as it was, the probe looked forlorn and a little vulnerable.

With Tom asking for specific maneuvers, Zimby sidled *Retriever One* over until it was about ten feet from the top of the probe.

“Move in and take a grip on the vertical piece pointing to the probe’s left and *Retriever’s* right, please.”

Zimby complied. “Got it!” he called out.

“Okay, now we find out if the repelatrions are going to be our method of lift or if we need to try using just the hydraulics in the arm. Go for first try.”

*Retriever One* tilted forward a little as the additional weight made it top heavy.

“Compensating,” he called over to the inventor.

Tom made no comment preferring to let his pilot do what he believed to be the right things.

“Top is coming off the ground, but I guess you all can see that.”

As the probe’s upper instrument pod rose, the foot pads at the other end started to drag slightly. There was almost no way given how the three repelatrions in the robot operated to stop that.

“Looks to be about forty-five degrees, Zim,” Hank said.

“Having... a bit... damn... of trouble getting ... oh, shoot... it up more and... rats!... not dragging the darned thing!”

Everyone looked at their monitors. It was true; the probe was being dragged along more than it was tilting upright.

“Stop and lower it, please,” Tom requested. He was looking at a wider angle view than the others and could see the shallow ravine coming up.

In seconds the probe lay back on its side on the ground. Zimby took a few seconds to look at the screen Tom had in front of him.

“Wow, and thanks for the stop order. I’d have dragged that thing right into that gully and then where would we be?”



After releasing the probe Zimby attempted to nudge it back a little using the side of *Retriever*. He was nominally successful.

Tom wondered what to do, but came up with, “Zim? Get on the other side and try to drag it back, and remember it’ll want to swing around so be ready to compensate for that.”

“Right. Moving around... now.”

As everyone watched, *Retriever* seemed to scoot around remaining facing the downed probe until it was just over the landing legs. The claw reached out and carefully grasped the rail nearest the “top” and just below the payload area. As he set the repelatron for a little more lift, the top began to swing slightly as Tom predicted. Zimby had to stop twice to reset the claw’s position as it was not designed to freely rotate more than about sixty degrees.

On his final grasp, he ended up with the claw a little higher than before; it was touching the payload area at the top.

As he began to lift he found this new spot gave him greater ability to tilt the probe.

“Should I go for a full try at getting it upright?” he asked.

Tom replied, “If it feels like you are about to succeed, then do it.”

The probe was more that fifty degrees back to being upright when the claw on *Retriever One* broke away sending the probe crashing back down onto the surface.

The top of the payload area popped open and as they all watched, something nobody had expected rolled out from its internal cradle and over toward the ravine.

“Is that what it looks like?” Hank asked in awe.

Tom had to take a deep breath. “I certainly looks like it. Me thinks the folks at NASA have not been totally truthful or forthright with us. That appears to be a *small nuclear device!*”

Back in Shopton, Damon and Anne decided to get their daughters’ minds off the mission and Tom and Bud being absent by having a dinner. Anne invited Rafir and Lalisha Prandit, Bashalli’s parents, and asked her daughter-in-law to help her prepare a couple of dishes that were from Pakistan.

“Of course,” she replied.

Together they made a lamb, chick pea and black rice salad with

an avocado and cucumber mint dressing as well as dessert of a sweet rice cake.

Rather than head home and have to pack and unpack the children, Bashalli had brought a dress and heels to change into for the dinner. She came downstairs from Sandy's old room just in time to greet her parents with hugs and cheek kisses.

Her brother, Moshan, had been invited but had to beg off as he had a date with, he seemed pleased to announce, "An honest to gosh American woman who tells me I am cute. *Cute?*" He had shrugged when telling his sister that morning when she dropped by for a coffee and one of his pastries.

Everyone sat around the living room in conversation about anything other than the Venus mission.

Things were going quite well and when Anne asked if anybody might help her get the food on the table, Lalisha insisted.

"We are a couple of grandmothers and I would feel much better to help rather than to be served," she said to Anne as they entered the kitchen.

"I'm glad to have the chance to talk a minute. I'm worried about Bashi and Tom. I know she is unhappy these days with him going away. Is there something I'm missing or is he to blame for this?"

Lalisha placed a hand on Anne's forearm. "My Bashi is going through a very rough emotional time. I know she has not mentioned anything to Thomas, but, and please never mention I told you, she believes she was going to have another baby but then suddenly, she was not. She had been so excited that it hit her as if someone had beaten her with a piece of wood." She looked so very sad for her daughter.

"On, my!" was all Anne could say.

"Oh, and she was not... she had been starting a very tough exercise program and that, ummm, *disrupted* her body. So, a false alarm but she had been so tremendously happy..."

"Lalisha. She is still young and still has so much of life to look forward to. I suppose you have counseled her to not take this as hard as it seems she is?"

Bashalli's mother nodded. "Of course. Just as I know you would with Sandra."

The two friends hugged and then set about getting the food out into the dining room

The Prandits did not drink alcohol and so Anne had purchased some sparkling apple juice. With their flutes filled Damon stood and offered a toast to Bashalli's parents.

"For a lasting marriage in spite of the ordeals you faced in bringing your family safely to the United States. And, for persevering through your darkest days! And for raising the woman our son Tom fell madly in love with. Cheers!"

Bashalli broke down in tears and ran from the house.

Anne and Lalisha looked at each other while Sandy jumped up and ran to the front door getting there just in time to see her sister-in-law shutting her car door, starting it up and racing off.

When she came back she had a look of great puzzlement on her face. "Mother? Mother Prandit? Do you know why Bashi just did that?"

When neither woman spoke, Damon suggested he and Rafir go to his study for a few minutes, "Just to allow the ladies to have a quiet word."

Also very curious about his daughter's behavior, the Pakistani man followed.

With them gone Lalisha told Sandy about the false alarm and how it affected her daughter.

"Oh, golly," Sandy said putting her head in her arms on the table for a moment. "Well, Tom must be told and if Bashi won't, we need to. It has to be understood how important that had been and how horribly it hurts."

Before the two men came back they agreed it would be up to Bashalli to tell her husband, but Sandy would prod her and even help her practice just what to say.

One way or another she was determined that a small misunderstanding and disappointment would not ruin Tom and Bashalli's relationship!

"Get the *Retriever* out of there," Tom ordered.

Zimby needed no prodding; he'd already sent the **RECALL** signal to the robot and it was now rising away from the probe and the surface.

"It'll be back at our altitude in twenty-six minutes," he reported.

"If that is what we all suspect it to be, then I'm not certain

being directly overhead is the best spot in the universe at this moment,” the inventor said through clenched teeth. “Bud? Move us about five-hundred miles closer to the equator. Zimby, you need to adjust for our new location for the recovery of our little friend.”

As the *Challenger* raced away, Zimby set a new course to intercept them once they come to a standstill. He would need to make a few adjustments, but for now the *Retriever* was making an arcing path up and to the south leaving the Venus probe and its rather dubious and undoubtedly dangerous surprise cargo behind.

As they came to a halt, Tom got on the radio and called back to Enterprises. It would be nearly 5:00 am back home, but he asked to be immediately connected with his father’s TeleVoc. He did this so Anne Swift would not be bothered.

A weary voice inside Tom’s head said, “Yes, Son? What is it at this horrible hour?”

After the first sentence, Damon’s mind was wide awake and he was trying to sit up as gently as he could. It did no good. Anne opened her eyes, saw her husband’s jaw working and tapped him on the arm.

She pointed to her head making him nod, so she turned over and tried to get back into the nice dream she’d been having.

Damon’s thoughts were the things of nightmares.

“Are you certain?”

“No,” came Tom’s frank reply, “*but it looks like pictures I’ve seen of some of the smaller devices out there. What should I do?*”

“First, where are you?”

Tom told his father they were all safe and hundreds of miles away from the possible explosive. He added that *Retriever One* was about to dock with the ship.

“Good. Stay away from that area until I can get with Peter Quintana. Understood?”

“*Of course!*”

At exactly 8:00, Damon was on a video call with the senator. When the details, such as Damon knew them, were laid out, Peter Quintana sat silent and angry. They remained looking at each other for five minutes before Peter said, “Right! If they actually took a warhead up there, then NASA deserves to be emptied out, bulldozed, and the carcass left to rot! Let me find out what is

happening. In the meantime, ask Tom to steer clear but to not come racing home.”

Damon agreed. He then called Tom and told him about the delay.

“That’s okay, Dad. We’re just having a bit of rest now. I do have an idea if Peter says he can agree to it.” He told his father what his idea was and Damon had to agree it might be the best course of action.

Peter’s next call came at 11:50.

“Damon. That little package is not, I repeat it is not nuclear in any way. It is a high-explosive device designed to send a shockwave through the local strata to determine the stability of the surrounding land. You may have already spotted the problem here. Care to guess?”

“Not really. I’ve pondered this since our last conversation and can only think this is another place where fools and idiots were in charge. If that is supposed to explode, how is the probe supposed to send back any data?”

“You’ve hit the proverbial nail on the head, Damon. Nobody accounted for that in the design.” He sighed. “I assume that was not in any of the documents we received. Okay, here is what is being suggested. Have Tom pick that package up and set it down at least a football field length from the probe. He is asked to pick the probe back upright if possible, align the antennas to point to Earth, and get out of there.”

Now, Damon also sighed. “I’ll pass that along, but they have already tried to pick up the probe and it has not been a success. I will ask him to only take one more try before I recall him. I hope that is understood.”

“Yeah, understood loud and clear. But, I do have one more piece of news. NASA mysteriously found the missing three million they owe you. One day it was not there, and the next, today, it was sitting right on the Director’s desk. Imagine my surprise?”

Damon Swift snorted. “Right. Well, I want NASA to not only pay us that money, I want absolutely everything there is to know about it. No more surprises or I’ll personally build a new robot capable of picking that probe up, getting it a hundred miles up, and dropping it!”

Sounding as if this was a horrible possibility, Peter began, “But, that would destroy the— ahhh. Right. I see it clearly now and will pass along the word. Tell Tom he has my official apology for the

temporary scare over the... the... unexpected extra.”

\* \* \* \* \*

Three hours later with the explosive package set a few hundred yards away, and after one final attempt to put the probe upright, Zimby used the robot’s arm—replaced for an extra Tom had brought along “just in case”—and picked up the top of the probe setting it back in place.

An hour later Tom and his crew headed for home.

## CHAPTER 18 /

### BRUNETTE THREAT AND BLOND WISDOM

THERE WERE only a few things that truly frightened Tom.

One was being completely out of control of something he ought to be doing or operating.

The other was losing a family member.

As a young boy he had been grief stricken for more than a week when his grandfather, George Swift, passed away. He knew it was coming; his mother and father sat him down and explained about the cancer that was taking the man, talked about how medications had little effect at that point and the actual cancer had been spotted far too late for any operation.

It had been George who had failed to tell his doctor about the terrible pain he was feeling in his right side. His reasoning had been it must be because he was shrinking and his ribs were now scraping on his hips. He had been fooling himself and now was suffering for that folly.

This was utter nonsense as the Oncologist had told his family upon diagnosing a late stage four tumor in his right lung.

“The silly old thing just never let on. I did his physical each year and this must have been going on for at least three of those, but he just smiled and shook his head when I asked if he had any aches or pains.”

Now, Tom was facing a possibility of another loss. This time it would not be to illness; it was Bashalli who had tearfully told him that if he went off on another dangerous mission, she would not be home when he returned.

He'd come home from Venus to tell her of the failure of the unmanned robot. He hadn't even mentioned the manned *InvulnoSuit* when she broke into tears.

“I can't take this sitting and worrying every time you leave,” she said between heavy sobs that shook her body, but she refused to let him hold onto her.

“You've told me many times that the dangerous trip you were on would be the last, and then off you go without so much as discussing the things with me. Tom, we're supposed to be a team. Man *and wife*, not man and that woman who lives with him and

has no say in things. You've never considered how your trips into space or under the ocean affect me. Admit it. I'm not an important factor in your decisions!"

She ran from the room leaving him stunned and speechless.

He was still there ten minutes later when he heard the front door close. He knew without looking that she'd taken the kids and was probably headed for her parents' house.

What he did not know, nor could he imagine it, was Bashalli and the kids were heading for the Barclay home and specifically to talk to Sandy. She was, after all, Bashalli's best and truest friend even if there was a possibility she might side with her brother and tell her, "Bashi. You're being stupid. Tom is Tom and my Bud is Bud and the two of them go off sometimes and they always, *always* come home to us!"

When she arrived and got the children from their car seats, Sandy was standing on the front porch. It wasn't often they received visitors at eight at night and the sounds of car doors had her curious about who might be out there.

"Need any help?" she called out.

When she saw the tearstained face of her friend and sister-in-law she rushed forward holding Bashalli for two minutes while Bart and Mary stood by. They knew something bad had happened, but could not understand it. When Mary got anxious and started to move away, Bart took her hand and held it, keeping her from moving around.

Soon, though, Bashalli moved back from Sandy's embrace, wiped her eyes with the back of her right hand, and nodded.

Sandy draped an arm over her shoulders and said, "Let's go inside. Kids, come!"

The four walked up the three steps to the front porch and inside.

Bud was not at home. He'd made a long-distance delivery to Anchorage, Alaska that day and was spending the night there before he took a commercial flight back to New Jersey where he'd be picked up by either Red Jones or Slim Davis.

Sandy told Bart to take his sister to the "play room," which was the small room off the kitchen that might have become a den had Bud ever wanted one, where they could watch some of their favorite videos. She told Bashalli to sit and relax while she made them some chamomile tea.



Once they were both seated and Bashalli had wiped most of the running mascara from her cheeks, Sandy looked at her.

“Bashi? You and I are more sisters than most siblings. I know you are hurting now and I’ll just bet it has to do with Tom. So, tell me.”

Bashalli let it all out and amid periods of sobbing and hugging, she told of her great frustrations with her husband.

“It just knocks a hole in my stomach when Tom is gone and it’s even worse when he gets hurt. Even something simple like flying a... pardon me... a damn jet to France nearly got him killed!”

Sandy was both sympathetic to her sister-in-law but also shocked that the woman in Tom’s life, the one who finally decided to get her pilot’s license and was now able to fly even the giant *Super Queen* jet, could not realize that a good pilot is always in control of things.

Especially Tom and Bud.

And, Sandy had come darned close to losing the man in her life when the fire fighting water bomber he was flying in a few years earlier had crashed. One pilot was killed, the other in serious condition, and Bud ended up trapped inside the toilet at the back of the plane that had lost both its wings on a diving run.

Even though she’d initially accused Tom of allowing Bud to “get broken,” she soon came around when Bud told her it was a freak occurrence and had to do with that plane being an old and tired airframe.

“The skipper and I only fly the newest stuff, San,” he told her. “Besides, we might have been kind of jerks when we were dating you girls, not always remembering to take you and Bash out, but both Tom with Bash and me with you are trying to be better. Honest!”

Sandy turned to Bashalli. “Bashi? Do you still love Tom? And, I mean *really* love him? Because, if you have fallen out of love it isn’t going to do either of you any good to carry on and both feel miserable. He can’t do this to you and get away with it. Why the nerve of the man! You’re better off without him, I say!”

This had two reactions; both of them desired by the blonde.

Bashi stopped sobbing and sat up straight as if she’d been shocked.

Plus, she shook her head rather violently.

“I absolutely love Tom. How could you ask a thing like that?”

Then, seeing the look of amusement on Sandy’s face, she let out a little scream and pounded her fists into the sofa on either side of her hips.

“You said that to get a rise out of me didn’t you, Sandra Swift-Barclay?” She nearly shouted accusingly. “Not fair.”

Calmly, Sandy nodded her head. “Yep! Just wanted you to come to your senses. We both know the boys, and yes, they are still boys at heart, are what we both fell in love with and what they continue to be. It’s us who have changed, not them. So, if anyone is to blame, it is you and me.”

To say Bashalli was flabbergasted would be an understatement. How could Sandy Swift say such a horrible thing about her... but, she realized Sandy had said the same thing applied to them both.

She mulled it over and over in her mind getting alternately angry and sad with each repeat.

Was it true? Was she being unnecessarily angry and Sandy wise?

Bashalli suddenly turned quite pale. She had threatened Tom, the man she loved beyond anything—even their children—with abandoning him if he ever did... what? The things he most enjoyed in life?

Had Sandy Swift-Barclay become the wise older—or more mature—woman even though there were nearly three years separating them?

She couldn’t manage to get any words out for ten full minutes and Sandy sat there, inwardly smirking at having been the voice of reason for once. And, she wasn’t smirking at her best friend; she was thinking of everyone who would be so very surprised to know she had this sort of thing in her.

An hour later, Bashalli and the children headed home. The two kids sat in their seats a quiet as they had ever been, holding hands for comfort.

The car pulled into the driveway and Tom rose from his seat on the steps of their front porch. He’d spent about half that time talking with his father being told what he should and most definitely should *not* do or say once she came home. And, once her sister-in-law had headed for home, Sandy called Tom to tell her his wife was coming and a bit of what they had discussed.

“Just do not accuse her of leaving, Tom. She is very frail, emotionally, right now. Hold her, tell her you love her, but don’t discuss her leaving if you ever want to get things back to normal.”

Even without unbuckling the kids, Bashalli rushed into Tom’s arms, sobbing and holding onto him as tightly as she could. He held her, letting the sobs subside until she nodded in his chest.

“Let’s get the kids inside,” she told him. Together, they unstrapped Bart and Mary, carried them inside and upstairs to get ready for bed. Until they finally went downstairs, nothing was said by either adult about the recent trip.

When they were seated on the sofa, Tom took her hand in his and gave it a little squeeze.

After a minute, Bashalli took a very deep breath making Tom suddenly feel like icicles were being stabbed into his back. He tensed, expecting the worst.

She surprised him by telling him of the suspected pregnancy that turned out to not be, and how she felt after that.

“I so wanted another baby, Tom,” she admitted, lower lip trembling. “And, I reacted badly to it being a false alarm. Can you forgive me?”

She looked so earnest that he smiled at her and nodded. “Yes, but only if you forgive me for my transgressions.”

Her brow furrowed in thought. “I am not certain I understand the word. What is transgressions?”

“My saying I will stay home and then rushing off. My telling you all those years ago I would take you out more often and then forgetting about it. My tiny sins, if you will.”

She nodded. “Of course I will. Let’s go to bed. I am dreadfully tired.”

By the next morning just having finally talked about her feelings made Bashalli feel like a new woman. She got up early, made Tom one of his favorite breakfasts—biscuits and sausage gravy—and they spent the morning just sitting next to each other on the sofa, reading and kissing.

Sandy, knowing they needed alone time, had arrived at 8:15 to take the kids for the day.

In the days since the discovery of the explosive device on Venus, Tom, Damon and Peter Quintana had spoken at least five times. Each call revealed more and more information about the

true nature of the Venus probe. It was still true it had been sent to study the seismic nature of the hot second planet. And, it was still believed to be true that it had been sent to study *natural* seismic activity, but the outgoing NASA Director also told the senator, under a promise that an active FBI investigation would begin the very next morning should he be less than truthful, that the probe had both the discovered explosives, but it also contained a small pressure cylinder of a gaseous mixture it was hoped could be released that would coalesce in the current CO<sub>2</sub>-rich atmosphere and glow for up to one full week giving telescope positions around the world a chance to see something other than the dull, orange glow of the Venusian atmosphere.

“Toward what end?” had been Tom’s immediate reaction when told.

Peter suddenly looked like a deflated man.

“Because someone in the United States Senate, not me I will add, got it in their head that the way to get interest in the space department would be to make for a spectacular show. Failing to engage either the President or NASA in their idea of a glowing ‘USA’ on the surface of the Moon, they secretly worked with a scientist who told them this was going to be even more whiz bang.”

Tom and Damon shook their heads.

The younger inventor said, “That is ridiculous. Even if they could manage to make the atmosphere around Venus glow with some new color, they’d need a cylinder of such gas or liquid about the size of three railcar tanks full to make an impact for all but the most powerful telescopes.”

Damon wanted to know who was responsible.

“Unsure, my friend. All I know for certain is, it wasn’t me! Not all politicians are looking out for the welfare of their constituents. Some are actually only in it for the personal glory. I wish it were not so, but there you go. I’ll continue to dig, but in the meantime I suggest that Tom finish his special suit and train someone to go up in it. For all its faults, that Venus probe is actually an important bit of scientific research.”

Tom and Bud took their wives out to dinner that evening at the Shopton Yacht Club.

“It has been almost a year since we were last here,” Bashalli commented as they were being taken to their table. “I hope they

still have a nice band for dancing to after we have eaten.”

“I hope they still have the surf-n-turf special with the two-pound lobster and the bacon-wrapped steak,” Bud said grinning and looking as if he was about to start drooling.

“Good evening, Mr. and Mrs. Swift and Mr. and Mrs. Barclay. So nice to have you back. I trust all of the exploits we read about are the only reason for your absences?”

Tom spoke for the group. “Pretty much, Alexander. Nice to see you are still here. So, what’s the set of specials for this evening?”

In the end, the men ordered the surf-n-turf and the ladies each opted for a petite filet mignon. All had their beef cooked medium and all enjoyed every bite on their plates.

As they waited for desert to be delivered, Tom looked at Bud and Sandy. “We have a little announcement,” he began, but Sandy shook her head.

“Us first, I believe, big brother. Bud and I, as you both know, have been trying and trying and... well, let’s just say we have been trying to have a baby for a while. Yesterday we filled out the first set of forms to try for an adoption. We’re going to be parents... someday.”

She looked very happy, and Bashalli and Tom also had some baby news, but did not want to steal Sandy’s thunder, so when she asked what they wanted to announce, Tom squeezed his wife’s hand under the table and cleared his throat.

“Bash and I wanted to tell you both, first, how happy we are for you, and then to announce that we are going to take a vacation, just the two of us, starting next week and wondered if you might take the kids at night. Obviously Mom and Mom will want to have them as much as possible during the day when you both have to be at work, but now that you are going to try for a child of your own, we want you to know we trust you with our kids and think it will be a good experience for you both.”

The two women were now lightly sobbing with joy and leaning in to hug each other.

Bud looked curiously at Tom but decided to not say anything. Later, as they headed to the dance floor, he did ask, “So, that wasn’t the news you two had, was it?”

Tom smiled at his friend. “For tonight, that was the news. Maybe sometime in the coming weeks or months we’ll have other news. Let’s dance!”

On the next Monday Tom knuckled down to finish his *InvulnoSuit*. The experience with *Retriever One* had shown a few things needing to be upgraded. For one, the main lifting arm and claw needed to be beefed up, and the other arm also replaced. To do the work necessary to lift the probe it was going to take both of them.

He only had one day to work on things as he and Bashalli were truly going away. It had been a last minute thing done to complete the illusion Tom had begun at dinner on Friday, but he knew how important it was to his wife. Not only was she going to have another child, but she knew deep inside that she was going to have to wave goodbye to Tom when he left in another few weeks for Venus.

Tom tried to convince her and himself that it would not be him inside the suit, but both knew he could not order anyone else to do it.

They took a trip to British Columbia and spent a wonderful week avoiding any discussion of work while enjoying the city of Vancouver where she'd found a bed and breakfast at the crest of one hill where they could walk down one side into the main downtown area and the other side led to the waterfront, a farmer's market, and a walking trail all around Stanley Park.

It wasn't until the trip home when Bashalli brought up the subject of the Venus mission again.

"I know that you feel this must happen, and I also know that I hate the idea, especially now you are to be a father once again, but I also know you will go. It hurts me, Tom. But, I accept that you are you and that I cannot change that. I will be moving back in with my parents while you are gone. I cannot stay alone in our house when I know there is some small chance I will be there, alone, forever if you do not come home to me."

Tom felt trapped between sense of duty to his country and to his family.

"I still want to try one more time to use the *Retriever* robot," he told her. "It will only be a very last resort that I use the *InvulnoSuit*. I promise, Bash. I promise that is the plan and I promise I will come back. I... I can't lose you and the kids, so please don't leave me."

She was thinking as she looked into his face, *I wish you would not leave me, Tom. But, you will and my heart will break a little each day you are gone.*

## CHAPTER 19 /

### ACCIDENT AND SUBSTITUTION

THE MISSION to Venus would again need to be accomplished using the *Challenger* in order to take both the *InvulnoSuit* as well as *Retriever One*. The robot had been enhanced while Tom and Bashalli were away and now featured a brand new power release circuit that no longer waited until the special capacitor discharged; it gave out a steady release of its electrical energy into the circuits of the ship.

Its gripping and lifting arms were also about twenty percent stronger than before.

Tom was placing most of his hopes on *Retriever One* now being able to not just grasp and lift the probe; he wanted it to actually carry the probe aloft by several feet so it might be placed back down in a better place he'd spotted on Zimby's last tilt-and-drag of the structure.

While he understood his wife's emotional condition, it hurt Tom to see that she did not come to say goodbye to him when he, Bud, Zimby, Hank, Art Wiltessa and Chow climbed into the *Sky Queen* to head for Fearing Island.

Seeing the hurt look on his best friend's face, Bud stopped Tom inside the lower level hatch.

"Skipper. I know Bash loves you and you know that too. I suspect that the two of you had other news that night at the Yacht Club and that it has to do with her expecting a baby. Sandy told me she could see that in Bash's eyes. Now, you've been through this twice before and I seem to recall even if you don't that she is a bundle of nerves the first few months. So, I guess I'm trying to say that she loves you and she'll be there to meet us when we come home. Okay?"

Tom nodded, but inside his stomach was twisted into a cramped, solid mass of tension.

After takeoff, Tom called the Prandit's home and spoke with her.

He tried to make things sound light and easy, but she could tell she'd put a horrible burden on him by not being there when he left.

“Oh, Tom, I am so sorry that I could not be there. I would have grabbed onto you and not let you go. You might have had to take me along,” she said with a little laugh she hoped would diffuse the emotions of the moment.

“And, I would have, too,” he told her.

They talked twice a day all the way to Venus when he told her things would be a little busy for about a full day. “Perhaps even more, Bash, so I may not be able to call you until tomorrow night. We’ll be using the robot on what could be a ten-hour or longer mission and I need to be able to spell Zimby on the controls for the final few hours.”

She promised she would not burden him with a call and would wait. One word she could not add was, “patiently.”

As *Retriever One* slid off the porch outside the *Challenger’s* hangar and began its drop downward, everyone was tense waiting for the final status reports on all systems. Hank, back manning the telemetry console, called out the green lights as they each came on steady. “I’ve got all greens, skipper and Zimby. It’s looking good for landing and grabbing and all that good stuff.”

Down and down it went, going, slower than before, slow enough to not build up too much heat and that meant it would be more than an hour before it was within a mile of the surface.

All too soon, but not nearly soon enough for everyone’s liking, the *Retriever’s* downward video camera showed the ground and the probe below.

“Looks just like we left it... except...” Hank called out.

Tom noticed it as well, “Except that it has rotated a little and at least one of the antennas are no longer under it. Let’s hope they are still in usable condition.”

The robot neared its target and was piloted in an all-around path to get the best look at everything. As far as they could tell, the probe was in good condition, but at least one of the antennas seemed to be bent and that likely meant it was not going to be of any use.

The other one was not visible being under the probe, also likely unusable.

Tom had asked for and received a new pair of antenna to be used to replace the old ones, but he knew the finest control of *Retriever* could not do the trick.



It was going to require a fast trip down in the *InvulnoSuit* to make that happen. Now it became a game for him of getting his nerve up to either take the suit himself, or to ask Bud, the only other man onboard with any flight time in it—Slim Davis had been unable to come on the trip due to a family death—to go.

As Zimby maneuvered the robot the final seventy feet, Tom decided to tell him to let it rest on the surface.

“So far, we’ve only had it in the air, and have no idea of the surface conditions. Keep a good eye on things. We don’t want any chance of it either sinking in soft ground or getting stuck, but I think we need more information about the actual conditions of where NASA decided to put that probe down.”

As *Retriever One* was set down, Hank cried out, “We’ve got trouble! There’s an electrical arcing between the case and the ground. Get it back in the air!”

Zimby pressed the repelatron control and slid his fingers up the three on-screen actuators.

Slowly, almost as if it were stuck, the robot came away from the surface, but his control was no longer accurate. The *Retriever* spun and twisted as the pilot sought to make sense of what was happening. And, as he struggled, the robot moved sideways, slamming into the lower part of the probe. It was not hard enough to cause damage to the probe, but a couple warning lights came on for *Retriever One*.

It took two more minutes before Zimby had figured out what not to do with the controls and slowly the robot headed skyward.

It took three hours—Tom refused to allow Bud to drop down lower than one-hundred-twenty miles from the surface—to get the stricken robot back to a point where the Attractatron mounted outside the hangar door could be brought into play and grab the damaged robot.

Hank suited up and went outside to strap their broken robot to the outside rails.

Everyone was exhausted and discouraged.

After a five hour rest period, Tom got up from his reclined couch and headed, silently for the hangar.

Bud, who was only lightly drowsing, opened one eye and saw his friend and immediately knew what was happening. As Tom disappeared down the manual descent pole he pushed himself up and followed.

“Going somewhere?” he asked as he stood behind Tom inside the hangar where he was climbing up the step-stool in front of the *InvulnoSuit*.

Tom started but turned around with a strained grin on his face. “Yes, and you and I know this is what we have to do. With Slim back home consoling his father, I’m the only one qualified for this suit.” He came back down and faced Bud. “I’ll go down, get that thing upright, and try to get at least one of the antenna back pointing at the Earth. One hour, tops!”

Bud wanted to shake his head, but he knew as well as Tom did it would be the only way to complete the mission.

“Is there an override Zimby can use to yank you back if something... happens?”

The inventor shook his head. “No. No, there isn’t.”

The flyer clasped his friend on the shoulder. Reaching over he picked up a mesh Durastress bag he knew contained the replacement pair of the antennas and handed it to Tom.

“How about hanging that on my left claw, flyboy?” Bud did and a moment later he left to go back to the control room and get everyone up.

After he left, Tom pulled a small digital recorder from his pocket and made a two-minute recording for Bashalli... in case... and set the recorder in a place it would be noticed.

He climbed into the suit and closed the upper hatch.

All the instruments on the single panel came on and showed they were in full working condition. Even the jacket of almost frozen oxygen showed it was full and ready to go.

“Tom in the suit. I’m ready to launch,” he announced.

“Roger, skipper,” came Hank’s deep voice. “I hate this but you are good to go. Just... well, just come back quickly. Okay?” There was a hint of voice-breaking emotion that came through and it almost made Tom change his mind, but he was resolved.

“Depressurize the hangar,” he ordered. A moment later he could see that the light above the hangar door was red indicating no atmosphere. The outer door slid up and as he turned the suit to face space, Tom took a deep breath.

*I’d better be right about this*, he thought to himself.

A moment later he was out on the porch looking over at *Retriever One*. “The robot looks okay at least on the side I can see.

Maybe while I'm gone someone can haul it inside and give it a once over? It could come in handy down there."

"Will do, Tom."

He stepped off into space and drifted away a few meters so he would clear the outer rails of the ship and then set his controls to go down.

The closer to the surface he got the fewer butterflies were flying inside his gut. Now, it was just business and something to concentrate on so he did not have time to worry.

He set the suit's feet down on the surface fifteen feet from the probe. The repelatron kept nearly all his weight up so it was easy to walk around and look over the situation. One antenna was not just crushed, it was partially detached. Fortunately, it was the smaller one of the pair and was more a backup than a primary communication method.

Tom reached out with the right arm of the suit and gave the probe a little shove. It was heavy and only moved a couple inches before rocking back to where it had been. He moved up to the top of the probe where the upper cover had been shaken off, the bomb inside ejected, and then *Retriever* had put the top back on after taking the explosive two-hundred feet away.

Tom used the dexterity of the suit to make certain the top was actually attached and snugged down before doing anything else.

"I'm going to need to drag this thing a few feet toward that ravine," Tom reported. "If I tip it up right here it will stand with one foot on a rock that is about two-feet high. At least the part sticking out of the ground. No telling how far it goes down. Not good for stability. So, here goes."

He reached out the arms and took hold of two of the outer rails on either side of the probe and just below the payload top area. After setting the clamps to stay holding solidly to it, he moved his hands to the repelatron controls.

He tried to keep up a running commentary, but Bud came on reminding him to concentrate on the task. "We can see what you've got on the front and bottom cameras, Tom."

As everyone watched, the suit started to slowly rise, and as it rose, the top of the probe came away from the ground. Slowly, ever so slowly, Tom inched upward lifting the probe with him and dragging it forward. The higher he climbed the more he needed to extend the arms so the suit could remain to the side. He arrived at about fifteen feet with the probe now nearly sixty percent of the

way toward vertical when the arms were fully extended. It was no longer being dragged along.

This was going to be tricky. He found he needed those arms to extend four additional feet so he could keep from scraping against the probe. It would be useless to give it a little shove up and let go as it could as easily toppled back down, over the other side, or twisted only to fall awkwardly as it might go upright and stay there. Another fall could cause untold damage.

“I’ve hit a snag,” he reported and told the others what was happening. “Is there any way to get *Retriever One* repaired and down here to help?”

Hank responded with, “Zimby and Bud are in the hangar seeing what went wrong. Hang on a sec while I get a status update.” When he came back he reported the others had found the fault and believed they might get it repaired within the hour.

“Okay, I’m going to set this back down and wait. I guess it’s a good thing dad demanded I have a full day’s oxygen in this suit.”

Bud and Zimby had found what caused the problem, and it was another of the circuit boards inside the robot featuring one of the custom chips Linda Ming designed, but not the power-handling chip. Taking a replacement board, complete with all chips, from the parts locker, Bud inserted it inside and set the system for a self-check. It passed the checks as did the rest of the robot so they closed it up and left the hangar.

Back upstairs Zimby climbed into his control seat, donned the 3D glasses and checked the status. It all checked out so Bud depressurized the hangar, opened the outer door and the robot scooted out and headed down.

“*Retriever* is coming down. How are you doing, skipper?” Hank asked.

The heard a slight chuckle. “Wishing I’d put in a music system. It is fascinating looking around for the first five minutes, but it is the same wherever I look. Small valleys and small to medium hills all orange and yellow and a bit of red, but that’s about it other than the Venus probe and me.”

“Roger that, Tom. The retriever is coming down and Zimby just told me to expect it within the hour. It can take the extra heat.

“Okay. I’m going to go check on where we dropped that explosive device. I want to see if it is likely to go boom on us or if

NASA did something right.” He sounded as if he did not believe that might have happened.

A minute later he reported, “It’s sitting in a little dip in the ground perhaps three-inches deep so most of it is exposed. There is some sort of bezel near the top but I can’t see anything behind it. It might be dead. Anyway, I’ll not touch it. Heading back now.”

As the suit turned, the rear leg, the one Tom was not used to as it had never been part of a Fat Man suit, nudged the bomb case.

Inside the bezel three red lights came on. Unseen by the inventor, they turned to green and the first one began to blink.

Tom and the *InvulnoSuit* returned to the probe, waiting for *Retriever One* to arrive.

With little to do he tried rolling the probe over enough to have access to the pair of antenna. As he’d anticipated, both were damaged beyond possibility of use. So, Tom lowered his left arm allowing the Durastress bag to drop. Using the fine abilities of the arms and hand/claws, he opened the bag extracting both metal pieces.

The existing mounts could be managed and detached with a pair of built-in wrenches so it was a matter of five minutes before both were off and flung to the side. Then, extending one arm down he picked up the first, smaller, antenna and held it in place while the other hand/wrench tightened the two nuts to hold it in place. Then, he was able to insert the cable end into the bottom and shove it until he felt a click through the gauntlets.

One down and one to go!

The second, larger, one took more of an effort, as it was four times as tall and therefore rather clumsy to install with only the two hands. But, Tom managed it with minutes to spare before Zimby had the robot near enough for the inventor to look up and see.

Over at the bomb, the first blinking light turned solid and the second one began blinking.

Tom and the robot operator discussed how they should work together. They did three practice runs without picking up the probe. The first was clumsy and might have ended in disaster, but

numbers two and three went without a hitch.

“I think we’re ready to go,” Tom radioed. “Let me take a five minute break for some water and we do it!”

When he was ready, Tom called, “I’m going to move in. Shadow me as before and keep around to that far side. Once I get this coming up I’ll need to have you grab it lower down. I see that we can’t let it drag more than about a foot closer to me without having another rock problem.”

“Got it, Tom.”

Light two stopped blinking and went solid. Light three began blinking.

The probe started coming off the ground. Tom realized it would need to be rotated a little so the replaced antennas could find their positioning, but that was for later when fine tuning was called for.

With Zimby providing the counter motion and some of the lift the *Suit* was unable to impart, the probe neared its upright position.

It was at that time the final light in the bomb went steady green, then blinked red, and five seconds later it exploded with enough force to ram Tom and the *InvulnoSuit* forward into the side of the Venus probe sending them both flying fifty feet and to the ground.

*Retriever One* took a solid hit from the concussion and went tumbling backward out of Zimby’s control. It impacted the ground a hundred feet away and lay there.

Inside the *Suit*, the inventor was dazed but not badly injured. Tom stared down at his controls only to see five red lights in the row that was supposed to be eight greens. The others were not showing at all.

“What was that?” Bud demanded.

“That bomb we moved. Not far enough. It just went off and the *Suit* got hit in the back. I’m on the ground along with the probe and *Retriever One* is nowhere to be seen.”

Cautiously, Bud inquired, “How are you, Tom. Any injuries?”

“I don’t think anything major. The harness must have saved me from hitting anything inside, but my right shoulder hurts like crazy. It might be dislocated.” He scanned his control panel and

let out a little cry of dismay. “Bud? Trouble. All three of my repelatrions are showing complete shut down. I’ll try to restart things.”

Once he had restarted the computer he saw other bad things.

His *InvulnoSuit* legs were nearly dead as was the right arm.

And, Tom knew that unless a miracle happened, he would also be dead in a few hours. One of those red lights indicated the cooling system had ceased working!

*Oh, Bash. What have I done to you?*





## CHAPTER 20 /

### WE NOW RETURN CONTROL .....

BUD WAS frantic when he heard the news. But, he didn't want to panic Tom. He would think of something! He had to. If they lost Tom, he'd lose a wife; of that he was certain.

"Skipper. We're looking into our options right now. You just stay put for a bit."

Tom gave a wry chuckle. "Don't have much say in the matter, flyboy. Boy, is Bash going to be angry with me. I promised her I'd come back..." His voice choked with emotion.

"Don't talk like that, Tom. You always come through. We'll figure this one out." Inside Bud was praying for a solution to come his way.

A moment later it came in the form of Zimby Cox shouting over that he had some control of *Retriever One*.

"She's a couple hundred feet away," he told everyone, "but she is able to lift off a little and at least fly basically in a straight line."

Bud told Art Wiltessa to take over the ship controls and he scooted over to Zimby's station. "May I?" he asked. They both knew he'd also taken advantage of the 3D simulator before they came on the mission.

"Gladly. My hands are cramping."

Bud sat down, took the offered 3D goggles and grabbed the control joysticks. He sent the **LIFT** command that the robot rose about twenty feet before faltering and starting to settle back down. Once it touched the ground he sent the **LIFT** command again. And, again it headed up but stopped within seconds.

He soon found he could not get the robot to both stay in the air and move horizontally at the same time. Then, one of the repelatrons gave out and settled it to the ground on its side.

A scan of the panel in front of him showed the robot had ample electrical power, it just needed to be reset.

That act took four minutes, but he was relieved to see there was still some life left in the robot.

Out of desperation Bud tried to scoot *Retriever One* across the scorching surface until he might bump it into something that

would get the nose pointing up.

It scraped and scooted over the edge of a small dip in the surface and only because he was also watching the thing on the Megascope Space Prober could he determine this was his chance. He pulled the nose up using the robot's small attitude jets and hit the repelatron power setting. It raced into the air where he quickly gained enough control over it to set it down upright next to the probe and Tom's stranded suit.

Bud set the controls to keep things where they were and wiped perspiration from his face.

He made a decision he knew Tom would countermand if he knew of it.

"Art? Take us down to about fifty miles. I know the skipper warned against that but we might just need to swoop down and pick him up. This'll give us a chance to see if things work right in the heat."

As the ship headed slowly down to the reduced altitude Bud was back at the *Retriever* controls. He had a small idea and needed to go through all the moves in his head.

"Bud! Repelatron number three just fizzled out. It's got to be the heat," Art shouted over the alarm that had begun sounding. "There goes two... and we're about to lose five. I've got to take us up!"

Without any order, Art repositioned the remaining repeltrons that could be used to lift the ship and slowly, due to the reduced lifting power available, *Challenger* began rising higher.

Inside the *Suit*, the situation was getting desperate. He'd been prone for nearly an hour with the suit getting warmer and warmer by the minute. He'd pushed himself across so he could look out the top hatch and had seen a lot of vapor shooting out his damaged right arm at the elbow joint. It was, he greatly feared, the liquid O<sub>2</sub> escaping. As soon as it was all gone he likely had seven to ten minutes.

Because it was becoming more and more difficult to concentrate on anything from the heat, Tom found it very hard to catch onto what Bud was radioing to him.

"Again, Bud. Slower." His voice sounded weak.

"Okay. Can you see the robot? It is sitting about ten feet away from you. Look over your left shoulder, skipper."

“Lef—?”

“Yes! Left. Same side you wear your wedding ring. Think, Tom. Think about Bashalli! Your left side. Turn... your... head!”

With difficulty, the inventor twisted his head to the left. His vision was getting a little blurry, but... yes! There it was. If he could just reach out his arm... If only he had a drink of water—No! His arm first. *Concentrate on the arm*, he thought. He could not be certain why, but it began to move. His left arm was stretching out, getting closer and closer to the *Retriever*... but then it stopped.

Over his radio he heard, “You’re doing great, Tom. Now, you need to inch your body that same direction. You only have about a foot to go before you can grab onto the robot. Can to do that for me, Tom? Do it for Bash and Bart and little Mary? Please, skipper. Do it for everyone *including the new baby!*”

Everyone in the control room spun in their seat and stared at Bud.

With clenched teeth, Tom began sliding a little to his left using that arm’s elbow. The ground was so hot it was slightly viscous so it acted like lubrication letting him ease over, inch by painful inch. Finally he grabbed onto one of the small landing legs of the *Retriever*.

“Good, Tom. Latch on with all the power that egg has. I’m moving you over to the probe. I have a brilliant plan!”

It took everything *Retriever One* had and it appeared to totally gave out, dropping to the surface as soon as Tom was within reach of the Venus probe.

The tips of his outstretched gauntlet moved the arm outside and it brushed over the outer edge of one of the tubular struts on the probe, but his strength was all but gone and it slipped to the ground.

“Tom! You have to make it. I can’t come down to get you. Half the *Challenger’s* repelatrions are acting up and I’m afraid if I get down we won’t come back up. Reach, damn you, reach out and grab that support!”

Tom took three deep breaths of the hot, almost too hot, air in his survival suit before tensing his body and his legs for one final push. The legs did give him a little mobility, but not much.

Everything was swimming in front of his field of vision and he knew he was on the verge of blacking out, but his tired legs moved and brought the partially inoperable legs of the *Suit* up closer to the probe’s body and... they... pushed!

His suit slid forward about nine inches. He looked at the screen and realized the blurriness wasn't in the video system, it was the sweat running down his forehead and into his eyes. He pulled the right hand from its controller and wiped at his face. It helped a little—as did the pain in that shoulder—and he returned the hand before using his left to once more reach out.

This time the fingers of the suit did more than brushing the outside of the tube, this time they reached around it.

Tom, in a moment of clarity, knew he had to set the grip. His hand tightened and the outside glove also tightened. He kept up the grip until he could free his other hand and reach over, slowly, and set the left hand to stay gripped. Then, all reserved strength gone, he slumped forward and fell into unconsciousness.

In the *Challenger*, Bud saw his friend had clenched the probe, but when he called to congratulate Tom, there was no answer.

“Tom! Tom! You have to wake up. I'm going to need to have you do something more, just one more little thing. Please, skipper, wake up!”

The inventor's mind fought with his body's desire to just go away and he managed to get one eye open and his mouth moving.

“‘K, Bud. What?” His voice was a croak and almost a whisper.

“Thank goodness. Okay, Tom, when I tell you to, you need to set the suit's repelatrns to high and then *let the probe go*. My instruments show you have just enough power to get high enough I can swoop down and get you, but only if you can let the probe go when I tell you to. No sooner and no later. Got that?”

“Bu—? Will Bash be there when I get home, 'cause if not there's no hurry on this...”

“She'll be there! By god, if Sandy and I have to drag her to see you she'll be there. Are you ready, Tom?”

“Right,” the inventor said weakly. He took three deep breaths. “Let's go. No, wait. Repel... trons broke. Wha can I—”

“Try another reset, Tom. Try!”

The inventor slowly reached out with his right hand, causing more shoulder pain that sharpened his concentration, and pressed the reset. Everything went dark inside, but it lasted just a few seconds. When status lights came on, at least two of the repelatrns showed green and the third showed orange, or uncertain status.

“Got some, Bud.” Tom paused long enough to worry his friend.

“Now?”

Bud breathed a sigh of relief. “Now I have to use the *Retriever* one more time to get the probe back upright. I have some control... so hang on.”

The little robot responded almost as if it understood its creator’s life was at risk. Bud maneuvered it over, gripped the upper rail and pulled. It did take the last *Retriever* had to give but the probe stood upright as the robot sank to the surface a few yards away.

It would not be coming home.

But, Bud didn’t have time to mourn the robot’s demise. Carefully, so he didn’t shake his friend’s grip loose, Bud started up the rocket motor on the probe. He knew he could either bring them both up to about seven or eight miles and then the probe would crash after Tom let it go, or he could get it back to the surface if they only came up about three to four miles.

The probe and the suit lifted off but with all that extra weight on one side it soon started to tip. Bud’s fingers flew over the control pad as he made adjustments to get them coming straight up.

When it was nearly a mile up, Tom surprised his friend. “Bud? Off the ground it’s getting cooler in here. When do I let it go?”

“You’re doing great, skipper. Just let me get you both another two miles up, and you have to do the letting go and starting the repelatrons at about the same time. Then, by the time you get up to around sixty miles I’ll have the probe back down and will come get you. Are you about ready?”

“Yeah... just gimme the start order.” He still sounded exceptionally tired but there was a hint of eagerness in his voice.

“Right.” Bud was checking everything and could tell his extra maneuvering had burned off more fuel than he’d wanted to, so he gave Tom a short countdown. “Get ready, skipper. Here we go. Three... two... one... and let go and start your repelatrons.”

As Tom hit the power to his only means of escape, the suit started rising as the probe began falling. Bud waited until the last possible moment to arrest its drop and set it down on firm and level ground. Seconds later he was moving the *Challenger* down for the intercept.

“Bud? I’ve got him in the Attractatron’s sights but he’s still about five miles too low and it looks like the suit is slowing down,” came the call from Zimby.

“Rats!” Bud said as he let the giant ship drop down again hoping

the ship's remaining repelatrons would get them back up and into orbit.

"I snagged the suit, Bud and it looks like it was just in time. He had stopped coming up."

"Good, tell me when I can start to climb, Zim. We're kind of in a touchy situation ourselves."

A few seconds later, the other pilot stated, "I've got a good hold and have him at ten miles. Go ahead and slowly take us back out."

As Bud worked the controls to eke out enough power from the remaining repelatrons, Zimby was reeling in Tom's survival suit. There had been no communication from the inventor for several minutes, but just about everyone in the large ship was too busy to worry too much about that.

"He's two hundred feet out, Bud. I've still got a solid hold. How're we doing?"

"Uhh, we're back out five more miles and still going up. Gonna be a tough one, but this old girl hasn't let us down before. Bring the skipper onto the porch and then go down and drag him into the hangar. Take a bottle of water. Take three!"

Two minutes later Zimby launched himself up from his chair and dashed over to the emergency drop pole next to the elevator. It would be only ten seconds faster, but he didn't want to waste even a second.

Tom and his suit were on their back on the porch once the pilot got into his spacesuit and went out the hangar door.

Bracing his feet against the lower railing he shoved the egg into the hangar and dove in behind it. Seconds later he'd hit the emergency close button and the hangar was being flooded with air.

Tom's suit was still quite warm but the exposure to space had cooled it enough for Zimby to unlatch the escape hatch and reach in to check on Tom.

He nearly wept for joy when a hand inside gripped his and squeezed. It was weak, but it was a squeeze nonetheless.

Five minutes later Tom had drunk his first large bottle of water and recovered enough to crawl out of the suit. He was sitting on the deck smiling at Zimby when Bud's voice came over the ship's PA system.

"So, I'm getting us back to orbit; how's Tom?"

Tom, knowing the channel was open, said in a still croaking

voice, “Alive and breathing, flyboy. Unless you really need Zimby, I’m keeping him down here with me until I can stand. Give us maybe another ten minutes.”

“Take twenty, skipper. You deserve it!”

When the elevator door opened and Tom and Zimby stepped out, Bud wanted to jump up and run to his best friend but he was still flying the ship. Tom came over and sat heavily down in the seat next to Bud and looked over the controls.

“Uhhm, Bud? How did we blow those five control circuits?” Tom asked seeing half of the repelatron ready lights were flashing red.

“Over heated them when I tried coming down to rescue you. Luckily we can swing other dishes around the rails or we’d have come down to be with you.”

From the instruments, Tom estimated it would be another ten minutes until they reached a safe altitude and Bud could get them into a sustainable orbit. While waiting, he asked if Zimby could bring him another water and perhaps one of Chow’s food bars.

He drank and ate like he was in a panic to get it into him, but soon pushed himself up and walked/staggered around the control station and into the small passage behind the panels. One by one he pulled the blown repelatron circuit boards, waited ten seconds, and then resealed them.

On his control panel Bud shouted for joy as first one and then the rest of the dead circuits showed all green lights and the ship jumped out into space.

Tom came back around, on his hands and knees, and Zimby helped him over to the small infirmary room to one side where he got the inventor up onto the small bed and strapped in. A minute later and he had an IV inserted in the inventor’s arm and was forcing in a bag of saline.

“You stay there until you’ve had a chance to sleep,” he told Tom who grinned, closed his eyes and then began to lightly snore. His final thought was that he would *never* tell Bash about every part of his Ukraine rescue, especially Yara and their night of shared warmth.

When he woke up, the ship was almost two million miles out from Venus and on the way home. He unstrapped himself, noticed someone had removed the IV needle—putting a bandage over the insertion point—and he came out to the control room where Zimby was now at the controls. Over to one side in a darkened part of the deck, mouth hanging open and eyes shut, was Bud taking a sleep

break.

“Hey, skipper,” Zimby said in a whisper. He gave Tom a status update saying Bud had just fallen asleep twenty minutes earlier. “If you want to take this I’ll go make you something to eat. And, more water I’d guess.”

Tom let out a small chuckle and nodded. “Water first, please and then perhaps a sandwich, Zim. Thanks!”

As he sat looking at the board, the light for an incoming radio call began blinking. He put a headset on and keyed the mic. “*Challenger* here, Tom speaking.”

“Oh, Son? Thanks the heavens you’re safe. It’s dad. We see the probe is back on its feet sending some good data and you are obviously back in the ship. So, how did things go? And, I have to tell you that Bud ratted you out and told us you were down on Venus and might have been in a little trouble.”

Tom told his father everything from the touch down, the explosion and the partly disabled and damaged suit to his not being able to get himself or the probe upright. When he got to the point telling how Bud had dragged him and the probe up high and then set the thing down all the while coming to get him, Damon was barely breathing from the tension.

“Are you, umm, one-hundred percent, Tom?” he asked.

“I am still a little dehydrated but short of shoving in another bag or two of saline, I’ll be fine in another twelve hours, Dad. And, everything else is fine. Nothing broken but I think I have a bruise on my right side from the rough landing and that shoulder may need some work.”

Now, Tom took a deep breath as he mentally prepared himself for the answer to his next question.

“How is Bash?”

He didn’t expect his father to laugh at that, but Damon did. “Your wife is fine. Her mother called about an hour after she arrived the day you took off to warn us she was heading our way. She has spent the last two weeks living in your old room while the two kids are at Bud and Sandy’s. Twice your mother caught her standing in your old closet just smelling the old clothes in there and sobbing. I think it is safe to say she has missed you terribly. And, if you don’t mind I’ll call her right after this and give her a timetable of when to expect your return. When might that be?”

Tom told him it would be another eleven days. “I could do it in



nine but we had those five circuits go on us and I don't want to push things."

"Good idea. We will all be there to greet you when you get to Fearing. Oh, and I have some news to pass along from our legal eagle, Jackson. He says to tell you we now have the permissions for both the water pumping and replacement project and the first ten drillings for the shale oil, along with a solid purchase order for every drop of the crude oil from one of the biggest companies in the business and at current prices whatever they might be."

"Great. It might take me a few days to get around to that."

"One last piece of news for now," his father told him. "Do you recall my mentioning Barry Sales at NASA?"

"Sure. The man you worked with on that Jupiter surface skimmer vessel when all the other contractors backed out. Right?"

"Correct. And, even before that when I was employed down there. Well, he has just begun occupying the chair formerly filled by Anthony Williams. He is now the Director of Operations at NASA. For the first time in over a quarter century or more, NASA has someone running things who understands rocket technology!"

Tom told his father that was great news and would attend to contacting the new Director to see what also might be done as soon as he had a month to just be with his wife and children.

"Uhh, would it be okay to come down at Enterprises?" Tom requested.

"Glad you can see the logic in that, so certainly. Just give us all a few hour's notice."

As he stepped down from the bottom rung of the ladder, Tom found himself nearly tackled by his wife. Once he saw who it was, he began crying.

"Oh, Bash! I thought I'd lost you. I hate myself and swear I won't —"

She placed her right hand over his mouth. "No. Do not swear or promise anything like that! Just tell me you love me even if I was being a fool, that you will try to keep safe and will always come home to me. To the children. Even the next one. If it's a girl I think I'd like to call her Anne, if that's okay with her father?" She smiled at him and kissed him again.

"How about if it is a boy?"

“Then I think there ought to be another Damon in the world. You just have to promise to always come back to us.”

Tom smiled down into her upturned face, gave her another very serious kiss and then whispered, “Promise. With all my heart!”

And, although he didn’t realize it yet, he would hold to that promise and stay firmly rooted on the ground, or at least within several thousand feet of it, for the entire next year as an intriguing project would see him designing the nearly impossible when he became involved in developing a floating town in *Tom Swift and the HoverCity*.

He took her hand in his, turned to his family and friends and announced they were going home.

<•>—< End of Book >—<•>



