

TOM SWIFT  
And The  
Coupe of Invisibility

BY  
Victor Appleton II

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THE NEW TOM SWIFT INVENTION SERIES

# Tom Swift And The Coupe of Invisibility

By Victor Appleton II

Swift Enterprises wins a U.S. Navy contract to do the impossible. While modern ships are as stealthy as can be, at least to RADAR, they can still be spotted visually. Now, the Navy wants them to be invisible to the human eye as well!

While Tom works on a solution—one that requires the reuse of an earlier invention—the first cars from the new Swift MotorCar Company are rolling off the line. He decides to test various possibilities of his system on a brand new car.

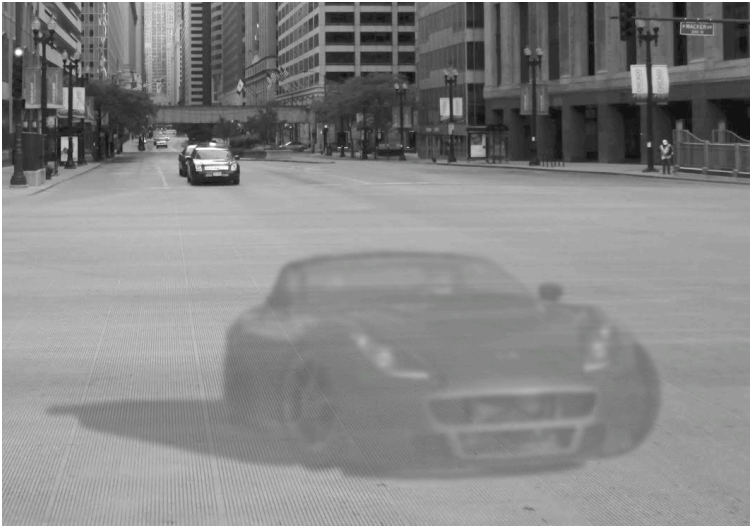
But when the car is stolen in broad daylight, and it looks as if terrorists have stolen it, he must double his efforts to now devise a way to see the invisible.

The situation becomes more dire when the car is used to infiltrate a military installation where a bomb is planted that destroys a building belonging to NATO.

Can Tom manage to complete the contract while working to overcome the very thing he is attempting to invent? And, will success mean his actual invention is doomed to be a failure?

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This book is dedicated to J. K. Rowling who brought us Harry Potter and his cloak of invisibility. And while many scientists and inventors are actively trying to build a true invisibility cloaking device or garment, such is still the thing of dreams. And the Romulans. But, even before those, Welsh mythology told tales of such “mantles” and one was even part of the Arthruian legend. Perhaps in Tom’s time and world it becomes a reality.



As the chase neared another intersection, the stealth car began to fade and was invisible before it completed its turn! PAGE 150

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## AUTHOR'S NOTE

This marks fourteen solo novels plus the dual author Tom Swift novel I've written with Leo Levesque. So, fifteen novels averaging about 75,000 words. That's about 1,125,000 words not including the other 750,000 words contained in all of the novella collections and other things I've done in this exciting world.

And that is almost like writing about six James A. Michener novels. The only place that puts me ahead of him is that I've done this in five years where he only managed about 1.6 million words in his first six years.

Does that make me a better author? Hardly! Does it make me as prolific? Barely, and I doubt I will keep up the output for 60 years. In fact, the only place where I think I might have a slight advantage is that more people are likely to finish reading a 75,000 word novel than a 400,000 word one. For myself, I've read only one of his books, SPACE. Cover to cover, that is.

I've started at least nine others, but usually bogged down about the time I reached the middle chapters.

Why mention this? For no other reason than to fill the top 60% of the page that has the links you see below.

And to hopefully get a few searches for *James A. Michener* that end up pointing here.

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

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



My Tom Swift novels and collections are also available on Amazon.com in paperback and Kindle editions

# Tom Swift and the Coupe of Invisibility

## FOREWORD

Men, for the most part, have long dreamed about finding or being given or inventing a way to sneak around without being seen. We know what the ultimate goal is without discussing it here. Anyway, there are more compelling reasons why somebody should discover this mythical cloaking device.

And not just because the Romulans have it!

Because mankind has not yet learned to play nice with each other, there are still wars and battles where men (and women and children and pets) die. Modern computer-guided weapons can—and have—reduced collateral damage and deaths, but the men and women of our armed forces must still sally forth and put themselves in harm's way. It might be a “hazard of the job,” but that doesn't mean nothing might be done about it!

Stealth technology for physical designs can only go so far to making it difficult or impossible for them to be detected, even on reconnaissance missions. And drones aren't always the answer. The next logical step is to make things really disappear.

And, that is what Tom sets out to do.

We can all hope for the day when we only need such things and weapons to defend ourselves from an *Independence Day*-type invasion from an unfriendly visitor from outer space, and not from ourselves.

*Victor Appleton II*





## CHAPTER 1 /

### FOR MY NEXT TRICK

"HEY, MR. SWIFT," a dark haired young man of about twenty-three called out as he came into the large office. He had found Damon Swift, world renowned scientist and inventor, sitting at his desk on the far side of the office. The younger man, Bud Barclay, inclined his head toward another desk sitting closer to the door.

"Have you seen Tom? I tried TeleVoc-ing him about an hour ago and he said to come over about now."

"No, Bud. He hasn't been in this office all day. And I can't say that I've heard any noises coming from his laboratory next door. Did you try the underground hangar office?" Mr. Swift coughed lightly behind his right hand.

Bud nodded. "Yep. And the cafeteria and the Barn. Loads of places." He noticed the older man seemed to be stifling a grin. "So, no idea, huh?"

"Oh, I'm sure he's around. I suggest you look a bit more. Maybe under his desk?"

Bud's eyebrows furrowed as he took another glance around. He still saw no sign of his best friend and, by virtue of his marriage to Tom's sister, Sandy, his brother-in-law.

"Okay, Bud. I'll help you," Mr. Swift offered. "Come over here a moment." The flyer complied and was quickly standing in front of the older Swift's desk. "Fine. Now turn around slowly and face the door. Bud did as he was instructed and let out a cry.

"Tom!" Where did you come from?"

The inventor had mysteriously appeared standing next to the door. He had a huge smile on his face and broke out laughing along with his father at Bud's confusion.

"Just a parlor trick, flyboy," the young inventor told him. "Go ahead and close your eyes again."

When Bud did he heard a slight rustle sound.

"Open."

"Jetz!" exclaimed his friend. "But— what—" he gulped.

He was even more amazed when first the top of Tom's head appeared, floating about six feet above the floor. It was followed by the rest of his head and his upper body.

It had been like watching an elevator descending.

With a flourish Tom swept something from in front of his lower

body and the remainder of him appeared.

“Wow. What will you do with that little trick? Become *Swift-o The Magnificent?*”

Tom shook his head. “No. This is just a very rudimentary example of something I’ve been trying to perfect for months. Even while we were getting the High Space L-Evator going and during the slack times before that when we tried to figure what was going on at the helium wells, I have been tinkering with this.”

“An invisibility cloak? Dream of many a teenage boy,” Bud stated.

“Well, not much of one. Watch this.” Tom pulled the cloak back up and disappeared over about one full second, fading away. “Okay. I’m going to move.” Suddenly he reappeared, still with his hands out holding the invisibility panel. “See. It doesn’t work if you move. In fact it only works if you stand perfectly still and have an absolutely still and flat surface behind you.”

He clicked a switch in the upper corner of the panel and it appeared. It was gray, seemed to be about a half-inch thick and was covered by a hundred or more dark squares, nearly touching each other.

Tom explained that these were a series of small, flexible video screens. Turning the panel around he showed the flyer that it featured two-dozen tiny cameras along the outer seams.

“Those pick up the picture of what is behind the panel and a tiny computer divides that up and pushes the video to the small screens in front. I have to hold it very close so the cameras look around me and not at my sides.” He also showed Bud the handle across the top that had to be used to keep his arms from getting into one of the camera shots.

Bud nodded and appeared to be contemplating what he just learned. “So-o-o-o-o,” he started, “what *can* it be used for?”

Tom sighed. “Right now, just a little trick like that one. In the future it could be used by law enforcement.”

“Great! First hiding behind billboards—and at least you can spot a billboard and slow down just in case—but I say it would be unfair to let police hide their speed traps right out in the open!”

Mr. Swift chuckled. “Actually, Bud, I think Tom meant that law enforcement might make use of it to post stakeouts on criminal activity that cannot be detected. Or, to allow special raids on drug houses. Imagine the surprise if nothing pulls up in a neighborhood, nobody gets out, and nobody walks right up to the door. The element of surprise could save a lot of shooting and other harm.”

“Oh. I never thought of that,” the flyer admitted. “It all sounds great, but can you make it so it lets people move?”

With a shrug, Tom told him, “That, I’m not certain about. But, up to now I have had very little time to devote to it. Since Bash and I came back from Tahiti last week I’ve pulled it all back out and I’m trying to see if anything else might come of it.”

Tom’s wife, the former Bashalli Prandit, was one year older than both the inventor and Bud and had met him while he was building his first large-scale invention, his Flying Lab, the *Sky Queen*. Born in Pakistan but growing up in the United States since the age of ten, she was a very “Americanized” woman, much to the dismay of her parents and brother, Moshan, who had once hoped she would marry a nice Pakistani man.

Instead, she had fallen in love with Tom and they married almost three years later. Known by her full name to acquaintances, as Bashi by family and friends, and the more personal Bash by Tom and Bud.

“Sandy told me what Bash said about the vacation, skipper. She says that you two had a wonderful two weeks in paradise. Plus I happen to know that you never called into Enterprises during that time, so things must have been super relaxing.”

“Yep. Sun, skin diving, great food, dancing every evening, romantic walks down sandy beaches. It was great.”

“And, now that Tom is back,” Mr. Swift added, “he is working a little on his invisibility device and also overseeing the final stage of getting our new automobile plant up and running.”

“Neat! Of course now I have to go back a few months to see if Tom here remembers that he suggested I take a temporary transfer over to the new company to be their chief tester. Remember?” he asked looking at his friend.

“Oh, I remember. But that won’t be happening for another three or four weeks yet. We will open the plant but for almost the first month we will be creating subassemblies and testing all the equipment.”

Bud’s shoulders slumped. “Oh. Okay. Well, is there anything I can help with? I don’t have any delivery flights or demos scheduled the rest of this week and most of next.”

Bud was one of Enterprises top test pilots. Along with Red Jones and Zimby Cox—and sometimes Tom’s sister, Bud’s wife, Sandy—the three were responsible for shaking down each and every aircraft that came through the doors of the Construction Company, another Swift company that was the original facility for all things Swift. Bud and Sandy tended to share the majority of

demonstration flights for customers. They were the two most comfortable dealing with important customers and other big wigs.

“I can use you, yes,” Tom replied. “First, you have wanted to run one of the track racers down the new railroad line to the delivery point. Since we decided to not truck the finished cars out and Dad authorized that line, it has been completed and measured but we’ve kept the heavy cars off until you can manually check things out.” Tom smiled. He knew everything was perfect but Bud really, really, really wanted to take one of the small 8-man track-riding speedsters along the nearly twenty miles of new track.

“Great. So, how fast can I take that banked curve from the new spur line and onto the main tracks?”

“It is rated at up to forty-eight MPH for the large trains but I think you can try the racer at up to sixty. But,” he cautioned holding up a warning finger, “only on the return trip. Going down no more than twenty at any point. I’ve outfitted the blue racer with some sensor equipment to check for any deviation in alignment of the underlying bed. That comes first and the fun ride for little Budworth comes second.”

Sheepishly, the flyer agreed to keep things slow. “Besides, sitting as low as the driver does in those things twenty is going to feel like forty and sixty will be like zipping along at top speed.”

With a sly grin Tom inquired when Bud might want to make his test runs.

“Five months ago, but if you give me a head start I think I can get there ahead of you and be on my way in fifteen minutes!”

“Okay,” Tom told him. “I’ll drive us over and wave you off.” He opened a large slide-out drawer set into one wall and carefully laid the cloaking panel inside. It slid shut with barely a sound and returned flush with the wall. Given the pattern of the paneling on the wall, it was almost impossible to detect once closed.

They went down to the parking lot for the Administration building and climbed into Tom’s sedan. A few years earlier it would have been his little two-seat sports convertible, but Bashalli now drove that to her office each day. Her reasoning was that Tom had come to harm several times in the small car—staged accidents, hijackings and such—but the four-door sedan would keep him safer.

Tom knew she just liked the sports car better and did not argue that her logic would then put her in harm’s way more easily.

They drove around the perimeter of the main buildings, took a left turn and headed for a nearby down ramp. This was the entrance of the private tunnel between Enterprises and the Swift

MotorCar Company. Using it cut nearly a quarter hour of drive time over leaving by the main gate set on the opposite side of the four-mile-square Enterprises grounds.

“Listen, Bud. When you get to the other end you can pull off on a short side railing I had the fellows put in. It parallels the end of our tracks and the start of the old steel tracks.”

“Okay,” the flyer replied slowly, a hint of question in his voice. “Uh, why?”

“Easy. Two reasons. First I want you to stop a little and speak with Jonas Grumby. He’s the man who lives in the abandoned box car and is the one we hired to keep an eye on things for us.”

This had come about when it was discovered that a local criminal had pulled up several lengths of the older, yet still needed, iron tracks and had tried to sell them to a recycling yard. Grumby had given Tom the name of the man, who now resided in the county jail, and Tom had rewarded him by offering him a steady payment each month to, “...keep an eye on things.”

The inventor hooked his right thumb over his shoulder pointing at the back seat. Bud turned around to see what was back there.

“Ahhh. Bags of groceries and the likes, I see,” he said.

“Yes. Even though he won’t take as much money as the service he provides warrants, the least we can do is to see that he has good food and some bottled water.”

They had been traveling along the underground tunnel and now approached the up ramp. Moments later they had passed through the end archway and drove up to ground level, just inside of the main gate. Tom turned to the right and drove them past the group of Maintenance employees who were using another of Tom’s inventions, a machine that could lay down new asphalt or revitalize old asphalt at speeds measured in miles per hour, not yards. They were finishing the last of the parking area for new cars awaiting shipment out.

The loading dock and the train that would be taking over two hundred new cars south for shipment across the country each day was sitting there with the ten auto-carrying cars. It looked like a shorter version of one of Tom’s transcontinental bullet trains. On a side rail sat the two cargo cars that would be used by the Construction Company to ship some of their goods out.

“You said there were a couple reasons, skipper. What’s the other one?”

“Oh, right. The other reason is that I had our people put in a small turntable so you can get the rail racer spun around for the return trip.”

When Bud thought about it he could see how this would be an enormous help. The racer, although light, still normally required between three and four men to lift it onto and off of the tracks.

Tom pulled up next to what appeared to be a squat garage beside the end of the line. They got out and he went to the low door where Tom tapped a code into the keypad and stepped back. The door rolled up inside the roof of the structure and a small, low-slung vehicle rolled out, stopping in front of Bud.

“Hello, little blue racer,” he greeted the vehicle with a big smile. “You and I are going to have lots of fun today. You up for it?” They placed the groceries on the floor behind the driver’s seat.

Even though the rail racer hadn’t answer him, Bud turned to his friend and stated, “She’s ready, and so am I!”

As he was climbing in, Tom reminded him to keep things slow on the way down. Giving his friend a wave, Bud closed the canopy, started the small engine and scooted away.

When he arrived back at the shared office Tom saw his father sitting in the conference area talking with a man about the same age. It was Jake Aturian, Damon Swift’s good friend and the President of the Construction Company. That business had been the original Swift manufacturing and R&D facility, but once Enterprises had been built—more than a decade earlier—Damon assumed management duties there and assigned Jake to take over what now was the manufacturing center for most things Swift.

From electronics to planes to Tom’s Y4 and Y8 engines, and everything in between, the Construction company built what Tom and his father and the other scientists and engineers at Enterprises came up with.

“Well, hey, Tom,” Jake greeted him standing to shake the young inventor’s hand. “I never got over here to congratulate you on either the space elevator or on solving the whole Helium City near fiasco. Good job! Your dad and I were just going over some of the transfer of responsibility to the car company details.”

“Have a seat, Son,” Damon suggested.

Jake spoke as Tom sat. “The official opening of the Swift MotorCar Company is only a week and five days away. We’ve put just about the last of the equipment in the subassembly building and will finish the final assembly line in time for the first production cars to roll out roughly thirty days after that.”

This wasn’t news to Tom.

“We were just talking about making the final move, Son,” he father said. “Your Y-series engines are going into the first model, the Swift-100 Coupe. The Y4 version for the initial five thousand

before we offer a Y6 option. Jake suggested a few months ago that we ought to move the production line over to the car company from his facility.”

“It’ll let us pump out the engines and get them into final assembly without all the crating, loading, driving over, un-crating and finally testing and installing them which is what we initially looked at.”

Tom was puzzled. “I thought we didn’t have the room in the subassembly building for that line.”

“As Jake’s people were putting the various lines in they did a little rearranging of things and came up with nearly one thousand square feet of free space.”

Now Tom was definitely puzzled and he said so. “But that line uses nearly three thousand feet of space over at your facility.”

Both of the older men laughed. “Well, that is the current case, but Jake designed a multilevel line,” Mr. Swift said.

“That’s right. All the milling starts at the top and needs no man power other than one person to watch for troubles. The main blocks, the crankshafts and heads get done up there and then we use gravity to slide them around and down to the next level where people put the pistons, rods and everything else that goes inside, well... inside. Then they get a gentle conveyor ride to the lowest level where everything that hangs on the outside gets put on, the engines get their three minute run test and then move on out ready to go into the next car coming down the line.”

Shaking his head in wonder, Tom asked, “All in one thousand square feet?”

Damon was shaking his own head. “No. Nine hundred-fifty feet. We’re putting a coffee station in the extra space.”

They shared a laugh over this news.

For about two hours they talked over more of the details of getting the plant up and running. With a high level of automation, the subassembly lines—located in an enormous inflatable building—needed only two hundred men and women to operate while the main assembly line would employ about fifty people. A third of all these were transfers from either Enterprises or the Construction Company. The rest had been hired over the past three months.

Stringent background checks had been made and nearly twenty people were turned away for concealing criminal pasts or trying to forge unearned education certification.

Harlan Ames and his people in Security had done an amazing job, as was usually the case. When three of the refused candidates

threatened either physical or legal action, those cases had been turned over to Jackson Rimmer and his team in Legal. Only a single candidate, a man who had driven out from Utah on the hope of securing a position, looked to be an ongoing problem.

Even though he refused to leave the area, and had even staged a sit-in at the main gate of Enterprises complete with hand-written sign proclaiming...

#### ENTERPRISE'S KILL'S PEOPLE'S DREAM'S

...he was deemed to be undereducated for the position, especially in terms of punctuation, and mostly harmless so the police were not called in. His protest lasted just three days.

The last item to discuss was the first run of test vehicles.

"Initially, we will need to produce fifty of any model we intend to build," Jake told them. "The NHTSA gets an even two-dozen for their testing. We need to do our own testing for crash statistics, mileage claims, and durability. We will be tasked with doing those tests on another eighteen."

"And, the final eight?" Damon inquired.

"Two for dynamometer testing up to engine or drive train failure, and six for fun drives and for fine-tuning interior issues."

"I hope we can keep number one off the line for the museum," Tom told them. They both nodded. "And, one for Dad, one for you, Jake plus one for me!"

As their meeting was breaking up, and Tom headed down the hall to his big laboratory, Bud was nearing the end of the run down to the end of the new rail lines."

He was getting out of the rail racer when Bud spotted an older black man coming from the direction of an old boxcar that proclaimed to be part of the "Pride of the Poconos" rail line. Although looking somewhat elderly, the man walked swiftly and spryly toward him.

"You must be Jonas Grumby," the flyer greeted the man.

"I am that," he admitted. "You from the Swifts?"

"I am that," Bud answered with a big grin. "I come bearing gifts. Well, at least three bags of assorted groceries. Where do you want me to put them?"

"Gosh, that's all sorts of nice of ya young man, but I hope you don't have anything that's gotta go into a refrigerator. I'm not exactly set up for that."

"No. Just some canned foods, a few things in boxes and a



couple of things in bags. And, some water. Just show me where they go.”

“Ahhh, I’m no cripple, young man. Lemme have at least one of the bags.”

They walked together to the boxcar. Jonas slid the door to one side revealing what could have been a room at a not-too-elegant motel. It had a sofa, table with three mismatched chairs, a desk, dresser, book shelf unit and a queen-sized bed.

“Some place you’ve got,” Bud complimented the man.

“It’ll do until I can get my hands on one of those big shipping containers. Listen, while you’re here I need to tell you something to tell that Tom Swift about. Okay?”

“Sure. Shoot.”

“It’s like this. That scoundrel Murphy, the one who took up that good track, got out of jail yesterday. Police said they can’t hold him for more’n the thirty days he’s served.”

Bud wondered if he ought to look more alarmed, but he decided to simply appear thoughtful. “I see.”

Grumby shook his head. “No. You don’t. Murphy’s already promised to go get Tom Swift. He says he’ll kill him if he ever sees him!”



## CHAPTER 2 /

### CONTEMPLATING A NAVAL PROPOSITION

BUD SPUTTERED in rage. “Why that miserable—”

Chuckling, Jonas replied, “My feeling, exactly. I’m not too certain whether he knows it were me that called the police, so I am gonna lie low for about a week. Don’t you worry, though. I’ll still keep an eye on things.”

Bud’s anger gave way to curiosity, so he asked, “If you have to lie low, and I would think that means not being around here for that time, how are you going to keep watch in things?”

The man tapped the side of his nose with his index finger, and winked. “I have a few tricks. For instance, you see that old signalman’s tower beyond the other three lay-bys?” He pointed to a spot some three hundred yards away. It was a metal tower with a round “room” sitting about thirty feet in the air on four thick metal legs.

“Yes. I see it. Do you mean to tell me you are going to sit up there?”

“Yep. Do it all the time. On hot summer nights the old box here gets pretty hot and I cain’t leave the side doors open. So, I take my old key and go sleep in the tower. All the windows open and they have good, strong screens inside to keep the bugs out.”

An idea hit the flyer. “Old key, huh? Did you by chance used to work up in that tower?”

Now, Jonas Grumby smiled. “Thirty years, right until the day they closed this line down.” He looked from side to side and said in a lower voice, “Don’t let it get out that I’m getting paid by the Swifts, huh? It’d play all heck with my pension. I get a solid eight hundred a month plus free medical. I’d rather do the watching for free than give that up.”

Bud patted him on the shoulder. “My lips are sealed, and I never heard anyone say anything about you!” They smiled knowingly at one another before the younger man had an idea. “Wait here a sec,” he requested.

He ran out to the rail racer and rummaged around inside a storage container sitting between the last pair of seats. Finding what he was looking for he jogged back.

“Here,” he said handing the man what looked like a walkie-talkie. “That’s a state-of-the-art satellite radio. The signal goes up

to a series of satellites orbiting the Earth and then bounces back down to Enterprises. Everything's set so all you need to do is turn it on by flicking that little switch and the pressing the red button to talk."

"While I thank you for the remedial instructions, I was a radioman second class in the Navy before I joined the railroad company. I can figure these things out pretty good."

Bud blushed and apologized.

As he was turning the car around and getting ready to depart, Jonas told him, "Unless you tell me otherwise, I'll maintain silence until I see something. If Murphy comes rattling around I might give you a call to have your folks call the police for me. I've got a phone in the boxcar but the lines got cut to the tower years ago."

The flyer promised to let the communications people know.

Two minutes later and with a cheerful wave, Bud pulled the racer out from the side rails and onto the main line, accelerating quickly and disappearing soon after that.

Because it had been decided to embed TeleVoc relays along the line, to make communication between the trains and the factory easier, Bud was able to connect with Tom as he shot back north along the tracks. He filled his friend in on the situation with Grumby and the criminal, Murphy. Tom promised to get to Security and let them know what was happening.

"They might even want to put a couple of our men down there for a few days. I seem to remember another building down there. Sort of behind where Mr. Grumby's boxcar sits?"

"I know exactly what you mean," Bud stated. "The windows are gone but it also sits such that most of the view is blocked by the boxcar."

"Oh. It probably wouldn't be good to move the car. That'd be a tip off for sure."

"Say, there is an all-night diner about half a block away from the far tracks. I spotted it from the side rail as I was turning the racer around. It seems to have a pretty good view of the area. Perhaps Harlan or Phil Radnor or even Gary Bradley can go down and look. In fact," he said in a tone that told Tom he had a big grin on his face, "if one of them can meet me at the car factory I'd be happy to drive them down in this little rail racer."

"I see. You sure you wouldn't feel too put out with the extra trip?"

"Hmmm. Now that you mention it... No! I'd love to take

another run. By the way, I just passed the five-mile marker. I'll be back in the station in about thirty-two minutes."

"Stand by there until either I or one of Harlan's folks joins you." He next called Harlan Ames, the Swift's chief of Security and gave him a brief version of what Bud had passed on. Ames promised to have his second in command, Phil Radnor, at the station in time to meet with Bud. "Did you have some premonition about this, or did Barclay just stumble on to it?"

"Our Bud has a way of stumbling and remaining upright."

Tom was still chuckling to himself when the Swift's Secretary, Munford Trent, buzzed.

"Tom. I have Admiral Hopkins of the U.S. Navy on line one. He said either you or your father would be fine, and I know your father is out. Can you take it?"

"Sure. Thanks." He clicked the button. "Hello, Admiral, it's Tom. How are you, sir?"

"Oh, hello, Tom. You know, in a way I'm glad I got you instead of your father. While I would love to chitchat with him I need to get to a meeting, so I will come right to the point. We, the U.S. Navy, have a real dilemma on our hands. Years ago we switched from our traditional style of ships to mostly ones that can be termed to be MRRs. That's Minimally RADAR Reflective, by the way. Stealth is another word the press and the Congress seem to have latched on to."

"Right. We're familiar with the Littoral class of close support ships and the new landing craft carriers, gunships, and even those two super supply ships. Umm, what is the dilemma? We don't build large ships."

"No. More's the pity. I think if you did we might have avoided this mess. You see, our ships present a very small signature on RADAR. That is for certain. At night it is very difficult to see them with all but the most sensitive of systems."

Tom could see what was coming. "But, not during the day."

The Admiral sighed. "No. Not during the day or even on bright nights. Electronically we have come pretty darned close to invisibility, but with the sun comes the fact that the ships still stand out like the giant war vessels they are. That brings me to my, well, question. Is it at all feasible—and don't worry if your answer has to be no—but is it at all possible to make ships so you can't see them, at least from a mile or so away? Like the old cloaking device the enemy beings on the Star Trek shows had?"

"Admiral. Why don't you go to your meeting and you and I can

set up a time when we can meet face-to-face about this?”

“You’re not saying no?”

“What I am saying is that this entire subject needs to be discussed personally and more thoroughly. When might be a good time for you?” the inventor asked as he perused his schedule for the next two days.

“I am flying up to Maine this evening for a meeting tomorrow morning. I might just as well set down at Enterprises as going straight to Portland. Would you have time around four today?”

Tom double-checked the schedule. He did have a meeting with Hank Sterling regarding an equipment problem up at the site of the new space station, but that was for three and should be finished by four. “Yes, sir. Four is fine. If you can stay the evening we can put you and your folks up in one of the guest homes up the hill from us.”

It was arranged and the Navy man promised to bring no more than three people plus his two pilots.

Tom spent the following three hours reviewing his notes regarding the new car factory.

Everything had gone more smoothly than he or his father might have imagined, and a new man had been brought in to manage the entire facility. The factory would officially begin its first production a full three months ahead of the original schedule. It would also begin production with the total construction costs sitting at eleven percent under budget.

He rose from his desk, stretched his back, and headed for the door. On the way out he told Trent, “I’m heading over to the car company. It’s about one-twenty now so I should be back no later than two-forty-five. If Hank calls tell him I will be in his office at three.”

The trip was identical to the one he and Bud took earlier. This time, however, he went straight to the subassembly building. It and the final assembly hall were complete; only the forthcoming Administration building was still under construction, but that was according to plan.

He walked into the open end of the inflatable and stopped short. It had been more than three weeks since he last set foot inside, and the change was dramatic. Everywhere he looked gleaming equipment sat ready to start.

The side-by-side vacu-forming machines, identical to the one Hank Sterling had built at the Construction Company more than a year earlier, stood with their multiple rolls of raw materials such

as Tyvek, fiberglass, carbon fiber and even woven Durastress cloth. These would be layered into the molds for the main body shells in a precise pattern and arrangement, infused with a new liquid tomasite-based polymer and formed into the outer bodies. As each pair exited they would run through a special oven to harden everything. A little final hand trimming would finish the job.

He walked to the right and could see the six smaller vacuu-form machines that would make everything from hoods to doors to bumpers. These would join body shells and move as a unit to the assembly hall along with the new chassis.

Everything looked like it was poised at the starting line just waiting for the starter's pistol.

But, what made his gasp as he stood just inside the door was the magnificent three-story engine creation assembly. It was exactly as Jake Aturian had described it, only more impressive.

When he looked up Tom could see several overhead delivery conveyors and cables. Everything was set up to run like a mechanical ballet. When things got going parts and subassemblies would be produced practically on an as-needed basis. Rather than build and build and have to store extras, Damon Swift wanted his new factory to run so smoothly that each part was finished and delivered to that position on the final assembly line within twenty seconds of when it would be needed.

The inventor was a little surprised to find that his neck had stiffened while doing all the looking up. He massaged it and headed back out and to the assembly hall. Unlike the previous structure this was a traditional solid-sided building. A single production line had been put together but space remained for the eventual addition of two others.

Tom was daydreaming about what it was going to look like when someone cleared their throat behind him. He spun around to see Bud and Phil Radnor standing there.

"We saw your car and figured you were checking things out, skipper," Phil told him. "We just got back from seeing old Jonas."

"What's the situation?" Tom asked, a little worried about the safety of the older man.

"That tower of his is plenty fortified, and he can lock off the ladder going up from the inside. It's steel, a little rusty of course, but short of them lobbing dynamite at him or setting a bonfire under the thing he ought to be safe. Just in case we'll start posting a pair of our men at the diner today and rotate them around until we are certain there's no danger."

“Can you gather any evidence just in case the police need to be called in?”

“Such as...”

“Well, such as video surveillance of the area with night-vision cameras and audio capabilities?”

As he spoke an Enterprises truck pulled up outside.

“That,” Phil said with a grin, “should be the team heading down to install all the surveillance gear you just requested.”

Tom smiled. “I should never think you folks aren’t on the ball!”

“I get to take them down?” Bud asked.

“Sorry, Bud,” Phil said, “But with seven of us plus the gear there will be no room. Besides, I got checked out on piloting the racers during the railroad project a few years back.”

“Come on, Bud. I’ll give you a ride back,” Tom offered.

As disappointed as the flyer seemed over missing out on his third trip of the day, he never stopped talking about his experiences as they drove back to Enterprises. Tom dropped him off out at the hangar where he kept a small office then headed for his meeting with Hank.

There was very little that needed his input. The engineer and pattern maker for Enterprises had a very good grasp of the issues and only needed Tom’s approval on a few items.

When four o’clock was approaching, Tom headed to the visitor’s terminal to greet his Navy guests. The official Navy business-style jet touched down with the precision only a carrier-based pilot might achieve and rolled smartly to the terminal.

“Tom!” Admiral Hopkins said as he climbed down the stairs.

“Hello, Admiral. I wasn’t certain how many of your team you wanted in on the meeting so I am having Trent come over with a minivan to at least take your pilots up the hill.”

“It’ll just be me and Commander Roberts. Come shake this young man’s hand, Rik.” The Commander, a strikingly handsome man of mixed Chinese and American heritage smiled and offered his hand.

“A real pleasure to meet you, Mr. Swift. The Admiral didn’t stop talking about everything you’ve done all the way up.”

The Admiral cleared his throat and mumbled something about that being “codswollop,” but didn’t actually protest. He next spoke to the third person coming down the stairs, an unsmiling man also wearing the gold oak leaf insignia of a Commander. He turned and



made a shooing motion to the young female ensign who was just stepping out of the jet.

“You children play nice,” the Admiral called out. To Tom he said, “We have a little professional jealousy. While they are both going to be key on tomorrow’s meeting they are not necessary, nor do I really think it appropriate to have them there, for today’s meeting. This commander is important as he is one of the Navy’s top experts in low visibility.”

When they arrived at the office Trent had already departed so Tom ushered his guests in, offered them coffee and then sat down in one of the overstuffed leather chairs.

“Guess I’ll get right to the point, Tom. As I mentioned we have what the big wigs in D.C want to call an ‘opportunity,’ but the three of us know it is a major problem. Namely, our so-called stealth ships are anything but that during daylight hours. And, since the advent of long-range surveillance aircraft and satellite imaging, that leaves them vulnerable to tracking and even attack for about half of each day.”

“The companies building these ships do an incredible job,” the commander stated, “when it comes to their reflectivity. Heck, and this is sort of secret but the Admiral assures me that you are cleared, we have one series of ships that appear to be the size of a floating refrigerator even from as close as three-quarters of a mile!”

“That is pretty incredible. So,” Tom said looking straight at the Admiral, “you think we might possibly be able to give you invisibility during daylight?”

“Well, the first thing for you to tell us is, are we chasing a rainbow or the pot of gold at the end? Is this feasible in the physical world? Or, is it just so much science fiction?”

Tom laughed. “To tell the truth, sir, ummm, sirs, most of what I deal in could be called science fiction. From robots to interacting with our Space Friends to my new space elevator... everything would be science fiction if it weren’t fact. So, the answer I can give you for your basic question is, yes. It is possible. Is it practical? *That* even might get you a qualified yes. Is it something I can hand to you right now? No.”

The two officers looked resigned but contemplative. “Let’s say it is technically possible, Tom,” Commander Roberts began. “If you had a solid contract to investigate and create some proof of concept, are we speaking of months, years or a decade or more?”

Tom rubbed his jaw in thought. A moment later he rose and walked to the near wall. “I want to show you both something,” he

told them. “You have your own Secret and Top Secret classifications. What I am about to show you might be called for your eyes only and nothing leaves this room!” He turned around to look at them. They both saw the seriousness in his eyes and nodded. Tom turned back, opened the wall drawer and removed his special panel.

“I know this is going to sound a little juvenile, but I want you to both close your eyes.” When they complied he pulled the panel up in front of him, squatted down and turned it on. “Just a few more seconds,” he said. “Okay. Open them.”

Both men let out a few colorful swear words before falling silent.

The Admiral found his voice first. “I hope you haven’t just done something like sneak around behind us,” he stated turning around and looking at the entire office. “I also hope that this is not some sort of hypnotic effect.”

Tom flicked the switch and quickly became visible. “It isn’t a trick. Well, it is, but it has a sound scientific and technological background.”

Their questions came fast and furious, neither man waiting for an answer or for the other to stop to listen. In a couple minutes they wound down.

Admiral Hopkins asked, “Is that something you can adapt on a large scale to cover an entire ship?”

“It might be possible, but here’s why you won’t want that. It only works if the object stays stock still. Here. Watch.” He flipped the switch back on and they watched as his lower body disappeared. “Now, I will move around.” When he took a step to one side the image in front of him wavered and his legs became mostly visible again. “See? If you were talking about a stationary building I’d say we might try this, but for a ship, anything that moves and must be covered all around, top to bottom, this isn’t the way to go even if it creates the desired effect. For the moment it is more a parlor trick than anything else.”

“How does it work?” the commander asked.

“Basically, it is a set of ultra-high definition cameras on one side, a very complex computer to process things, and a series of three-dimensional screens on the side facing you. It takes everything the computer and screens can do today to give the stationary effect. Motion is far beyond this.”

“I see,” Admiral Hopkins said, sadness in his voice. But he brightened a second later. “What steps do you need to make in

order to move on from that?" He pointed at the still invisible cloaking panel.

Turning off the panel and replacing it into the drawer, Tom could only reply, "That is the worst part, Admiral. I have absolutely no idea where to go from here. This might be a complete dead end!"



## CHAPTER 3 /

### FIRST CAR OFF THE LINE

THEY SPENT nearly another hour discussing steps Tom might try, along with some potential costs involved in delivering a test system.

“For many reasons, not the least of which is the extreme need for secrecy, this cannot be something that we put out to bid,” Cdr. Roberts said. “And while this violates many of the laws of this nation in dealing with contractors and the rules regarding our government I need to tell you that we have been given a special appropriation of one-point-two billion dollars to make this a reality. So that Swift Enterprises can make it a reality.”

“It’s a big responsibility. I hope we are up to it, sirs.”

“We think so,” stated the commander after glancing at his superior officer. “You see, there just isn’t anybody out there with the kind of knowledge and abilities of Swift Enterprises, other than... well, Swift Enterprises! Just knowing that you have made some strides along these lines says the Admiral’s faith in you is well justified.”

The Admiral added, “That money, by the way, is just for the proof of concept, Tom. Outfitting just one ship for testing. Anything beyond that is another funding process.”

“I understand and will keep that information from anybody other than my father. I assume that is permissible?”

The two other men nodded.

Admiral Hopkins leaned forward. “The general public is a fickle thing, Tom. Mention anything costing one billion dollars and there will always be those who scream bloody murder. What they don’t take into consideration is that a billion translates into under three dollars per citizen. If you can come up with a working invisibility field, or whatever it turns out to be, saving a single ship is worth three to six times that.”

“Don’t forget you probably also save hundreds of lives,” Roberts added. “Or more.”

“Will you need to test this on a real ship?” the Admiral asked.

Tom thought a moment and then said, “I don’t think so. I may just have our new company crank out a special car for me to do small-scale tests with.”

“That is most interesting,” replied Roberts, a smile on his face.

Tom mentally ran through anything he might want to ask. Nothing came to mind so he simply said, “Whether it’s a million or a billion, Enterprises is always in it for the lives it saves, sirs. Count on us!”

After Trent had ushered the two naval officers from the office Tom sat down at his desk and pulled up all of his notes from the cloaking panel project.

It was an approach several others had taken over the years, the main difference being that rather than using only a few cameras to fill a pliable screen, Tom’s device used many cameras all being processed by a computer so the end result was a nearly crystal clear picture spread across twenty screens.

That was, however, the main drawback. The processing time meant that movement—as he had demonstrated—wasn’t possible while maintaining the effect.

By the time it came to head home he was no farther along than before his meeting. He saved out the few notes he had made and went down to his car.

At home, Bashalli tried to ask about his day but he had to tell her it was “one of those top secret” kind of days. She had been with him for five years and understood. There were just some things she could not be privy to.

Tom pitied Bud a little. There were a few times when the flyer had to be left out of discussions because his wife—Tom’s sister—had a habit of being so nosy that she made his life a misery whenever she felt he wasn’t telling her everything. It wasn’t as if she would go blab; Sandy Swift had been brought up to understand that secret *meant* secret!

It was just that she felt that if Bud knew something, she should as well.

“If you cannot tell me about the day, then tell me about your feelings of whatever it is that happened.”

Tom pulled her into his lap. “Okay. What I can tell you is that I had a visit from an old friend, Admiral Hopkins, and his aide. We had a nice meeting during which they asked me to do the impossible.”

“And you told them you would. Correct?”

He smiled. “Something like that. Yes. As to how I feel... ummm, a little happy and a little frustrated. The thing we talked about is something I would love to do.” He told her that lives and a lot of money were on the line. “The theory behind their request makes it possible but the practicalities are possibly insurmountable.”

“Except for Tom Swift,” she declared before kissing him and getting up to fix dinner.

Tom wandered into the kitchen behind her and asked if there was anything he could do.

“Yes. We are having pork chops and green stuff. You get to peel the potatoes and string and chop the green beans. Thank you for being a wonderful husband who is not afraid to join his hard working wife in front of the stove.” She giggled as he poked her gently in the ribs.

“Now, all I have to ask about is this green stuff. What is it?”

Bashalli stopped and turned to face him. “I will take the things you peel and the things you string and chop, cook them until they are both soft, puree them together with some cream and butter and a little nutmeg and then bake that until the top is golden brown. You will like it,” she directed.

He liked it. Even if she hadn’t made it clear that he would, it was tasty and went wonderfully with the meat.

“Who’d have thought it,” he proclaimed as he sat back. “Vegetable and starch in one! Momsie ought to hear about this.”

“Mother Swift is the one who gave me the recipe,” she told him. “She says you had it several time as a young child. And, you and Bud can compare notes tomorrow. Sandra is fixing it for them tonight as well.”

Tom wasn’t at all surprised at the source of the recipe. Anne Swift, while educated as a molecular biologist, had turned her attentions to being mother and wife with relish. She was a terrific cook who enjoyed sharing favorite recipes, even with her daughter who turned out to not be one of life’s naturals in the kitchen.

The next morning as he and Bud sat drinking coffee in the shared office he inquired about Bud’s dinner.

“Great stuff. Except, and don’t tell her I said this, that green goop! Like wallpaper paste. Sandy told me it’s your mom’s recipe, so it obviously is a good one, just not in my dear wife’s hands.”

To the inventor, the entire dish seemed to be very easy. “What went wrong?” he had to ask.

With a resigned shrug, the flyer replied, “Not really sure except I think five minutes in the food processor didn’t help.”

Tom laughed. “Yep. That amount of whirling around would turn all that nice potato starch into paste all right. Next time you and San come over for dinner I’ll have Bash whip up a batch. Maybe Sandy will take her aside and ask why it turned out great at our place and not so much at yours.”

Bud snorted. “Not so great, huh? After it was baked it became a square of potato rubber. When she dropped a piece of it, it actually bounced!”

They soon got off the subject of Sandy Swift’s kitchen misadventures and onto talking about the forthcoming event at the Swift MotorCar Company.

“So, the day after tomorrow hand-built coupe number one comes rolling out the doors,” Tom informed his friend. “It is going to be broken down and rebuilt several times for practice, so it is not one of a couple dozen we need to thoroughly test here along with another couple dozen the Government gets for their crash tests and mileage ratings.”

Bud, who well knew the power and fuel economy of Tom’s small Y4 engine asked, “So, do we have a good feeling for the miles per gallon and top speed?”

Tom nodded. “I’m fairly certain that given the weight of the car plus a couple of people inside, and on a moderately flat road that we can expect around sixty-eight to seventy-three miles per gallon,” he replied. “And, easily over one hundred MPH.”

“Okay. And, since I am not very well read on the subject, how’s that mileage compare to the competition?”

“The last time I checked, and that was several months ago, the high average for a four-cylinder, two-seat car under twenty-five hundred pounds was about forty-six.”

“Oh. Well, as long as we kick that in the hindquarters, people ought to flock to buy these!”

Tom was naturally more cautious than his friend, so he only said, “We’ll see.”

“Speaking of seeing, when?”

“Patience, my friend. Patience. Tomorrow you and I will go over to see how the hand-assembly is going. We will, by the way, not interfere with the workers when we get there. Their movements are being recorded for each and every one they turn out this coming month.”

Bud’s brow furrowed. “Why?”

“To use to teach the robots. Over sixty percent of the final assembly will be done using robotic arms, chemical welders and other functions. People will play the biggest role in making many of the subassemblies and in the ongoing inspections of the cars as they roll down the line.”

Bud had to leave soon after that to go fly a brand new *Pigeon Commander*—a slightly scaled down propeller version of the Toad



—for delivery down to Dam Neck, Virginia and the nearby Oceana Naval Air Station. There, it would find a home as the official observation aircraft for all of their fleet training exercises.

Another of the Swift's test pilots, Red Jones, would come along in another *Commander* to bring Bud back.

Tom decided to go down to his underground office and lab. It gave him the solitude he thought he needed to think more about the Navy's request.

He didn't get the chance to step into the elevator before a howling siren went off followed by the loudspeaker system for the entire facility blaring out, "Unidentified incoming high speed aircraft. All personnel take cover immediately. Repeat. There is an unidentified incoming aircraft that will pass overhead in one minute coming from the south. All personnel get inside immediately! Drones have been dispatched."

The inventor was torn between seeking shelter inside a descending elevator or heading for the control tower. His quick calculation told him that he would still be exposed with probably a thousand feet to go when the aircraft was overhead, so he ducked into the small building and got into the elevator.

He did not, however, press the button to go down.

Outside, the fleet of air drones designed to protect the Swift properties headed in the direction of the intercept point. As they neared the oncoming aircraft they turned their Attractatron emitters on and quickly had the aircraft in their unshakable grip. With five of the drones now in complete control of the aircraft the other three raced off to resume their patrol positions. As a group the five drones and their captive made a sweeping turn so the aircraft was now pointing away from Enterprises and the drones were heading in that direction.

Two minutes later it was all over. All the aircraft were on the ground.

Three large, red fire trucks approached the still-running aircraft, a compact jet, and sent torrents of suppressant-laden water into the single air intake. In two seconds the jet turbine choked and stopped running.

"Skipper," came a TeleVoc message. "It's the tower. The jet is disabled."

Tom messaged back his thanks and left the elevator shed. He was in time to spot Harlan Ames and Phil Radnor, the top two men in Security at Enterprises, in a jeep heading toward the northern roadway that cut across the property to the opposite side of the grounds. He waved his arms and the jeep veered toward

him.

“If you’re thinking of joining us, Tom,” Harlan warned, “then you’re going to be disappointed. We’ll drop you off a quarter mile away. Just in case that jet is rigged!”

Tom agreed and they raced off.

Five minutes after being dropped off the jeep came back to get him.

“What’s the story, Phil?” he asked.

The Security man shook his head. “Don’t know. It’s some sort of home-built jet based around an old auxiliary power unit from something like a 737. Really light weight and the tower had it coming in at three-eighty.”

“What does the pilot have to say?”

Phil shook his head once again. “Nothing, skipper. The jet is empty!”

They got to the aircraft in time to watch the canopy being forced open. The inventor was surprised that this was being accomplished by Harlan and one of the fire fighters. His curiosity was satisfied when he took a look inside.

There was no seat for a pilot. No instruments. In fact, there was nothing visible inside the jet except for its engine and the duct bringing air into it.

It was a hollow shell with no place to hide anything like an explosive. All that it contained was a radio receiver with antenna and a set of servo-motors to control the flight surfaces.

Harlan promised to tell Tom what, if anything, they found that might give a clue as to the origin or purpose of the jet, so the inventor hopped a ride back to his lab with one of the fire trucks.

By the following morning there was still no news when Bud knocked on the door of Tom’s large lab in the Administration building. The inventor was tinkering with his invisibility panel.

“What’s up, flyboy?”

Bud made some *vrooming* noises and mimed a steering wheel.

“Ah! Yes. Okay, let’s go.”

They took Tom’s car through the tunnel to the auto plant parking close to the assembly hall.

Tom keyed them in through a side door and they took a set of metal stairs to their left up to an observation platform. From there they could see across the expanse of the building.

Pointing to their left, Tom said, “That. See? Those techs are

walking along with the very first car to go down our assembly line.”

“How far along are they,” Bu asked eagerly.

“From the position I’d say they have the chassis and drivetrain assembled and are finishing up the main wiring harness.”

“Neat! Let’s go watch!”

“Remember what I told you. No distractions today. And you, Budworth Barclay, can’t help but be a distraction. It’s in your blood!”

Tom pushed at Bud and pointed him toward the stairs and the door.

“Now is the time to let them do the final assembly, flyboy,” he said. “By this time tomorrow the first ever Swift MotorCar Company Model 100 coupe will roll out the end doors and become an important part of our history.”

Bud, sporting a very large grin asked, “Can I be the fifth or sixth person to drive it?”

“Fifth or sixth?” Tom questioned.

“Sure. I figure your dad gets top dibs followed by you, then maybe Jake Aturian and the new man, Van Derhoot, or whatever his name is that’s taking over the car factory.”

“Van deGroot. Charles Van deGroot,” corrected Tom.

“Right. So I suppose I am somewhere after them. Or,” he now looked worried, “am I even farther down the list?”

Tom let out a small laugh. “Don’t worry, Bud. Dad and Jake have already said they’ll pass on any of the test cars until they get a good shaking out by you and Sandy. Like yourself, she’s taking a two-month assignment over here for all the testing and fine-tuning of the amenities. I will want my turn and Charles will probably want to have a go, but I think you may be number three on the list.”

“Whoopee!” Bud shouted. He wished that he wore a hat so he might throw it in the air about now, but satisfied himself by pumping his right fist in the air several times. “Yes!”

The next day they met Mr. Van deGroot at his temporary office trailer; the Administration building—last of the structures on the factory property—was still several weeks from completion.

“Please, Tom. You, too, Bud. It’s Charlie. Charlie V if needs be, but the whole Dutch last name is really misplaced. It was my maternal grandfather’s name. When mom divorced my father she went back to it and had my name changed as well. I liked Gordon,

my original last name. And just for the record I've never been too happy with Chuck. Too many cruel kids in school calling me Chucky or Chucky-Wucky or Chuck-a-rino or Chuck-a-doodle-doo!"

They decided that that Charlie was fine.

While they walked toward the assembly hall he filled Bud in on his qualifications; Tom had known everything about him for months.

"I was educated at a business school in Oregon and then got my Masters in International Business from Stanford. Worked various positions at the big four auto manufacturers before my most recent job as CEO of AEA, All Electric Auto, up in Canada."

The talking ceased as they were now standing at the exit of the assembly line. The bright red nose and windshield of the very first car to come off of the line could be seen making the final turn. All that was left to do was add the two doors, the hood, and the wheels.

That took just under four minutes as the last five well-trained people went to work.

"Looks like even you won't be number one, skipper," Bud said as they watched one of the auto workers climb into the car, start the exceptionally quiet engine and drive it forward exiting the building before pulling to the side.

"That doesn't count, Bud," Charles informed them. "The car is brand new until it reaches either the customer or, once we have them all set up, the dealership. Everything before that falls under the heading, post assembly transportation."

Tom looked at them both. "So, I guess it's me, huh?" They nodded. He took the keys from the plant worker and climbed in. The seat sensed his position and weight, measured how his legs met the pedals and adjusted itself into a good driving position. Even the rear view mirror had an invisible camera that measured his eyes and computed the best angle. It quickly hummed into position.

"Make a mental note, Bud, to try a lot of positions and head moves. The mirror thing isn't quite right." He reached up and fixed the positioning. "Here goes!"

As Charlie pulled out a small notebook and made a physical note of the suggestion, Tom closed the door and put the car into gear. With very little gas pedal he pulled away from them, soon heading out the main gate where he turned to the left. The old road wound a bit but three miles farther down it merged with the country lane that backed Enterprises property. From there he

drove around the entirety of Enterprises coming back to the car plant about twenty-one minutes later.

He had a huge grin on his face.

Charles took the next run, but he only drove around the inner perimeter of the plant, then down the ramp and through the tunnel to Enterprises and back again.

He also got out with a grin and a face flush with excitement.

“I wouldn’t have believed it but that little engine has more torque and raw acceleration than any electric car I’ve ever been in. Amazing job, Tom!”

“I hate to sound like I’m antsy or anything, but me, me, me! My turn,” Bud said as he headed for the car.

With a laugh Tom kept him from closing the door. “Not just yet, Bud. A few things to watch out for. Right now it accelerates way too fast. I’ll have to program it to hold back some of that power, otherwise somebody is going to get into a serious situation.”

“Kind of like the time I was fourteen and hopped on my cousin’s motorcycle and gave it the gas. Darned thing slid right out from under me, the rear lights yanked my legs forward and I went up and backwards while the bike shot across two lanes of traffic and hit a picket fence.”

“Right. Next thing, the steering needs to be relaxed a bit.”

Charles piped up, “I was going to mention that. I suggest a full turn of the wheel to either side to fully move the tires. The two-thirds turn right now is much too responsive.”

“Noted,” Bud said. “Anything else?”

They didn’t have anything so he closed the door and started the engine. After taking a short circuit of the parking lot he gave them a thumbs up and headed for the main gate. Bud was so taken by the whole experience that he failed to look both ways.

As he pulled out onto the road, a large pickup truck came careening around the nearby corner. With a sickening crunch Bud’s car was hit from behind and went shooting into the air!



## CHAPTER 4 /

### BANG GOES THE CAR

TOM AND CHARLIE raced toward the gate. By the time they arrived the pickup was roaring off leaving the scene of the accident. There had been no time to get a license plate number, but Tom was certain it was the blue over white combination of Connecticut.

They ran over to where the little red coupe had disappeared behind a pile of rocks that had been placed out there during the plant's construction. As he rounded the last boulder Tom stopped short.

Bud was sitting on the front fender of the coupe. Neither he nor the little car seemed to have been any the worse for the experience.

"Uh, skipper? That first corner is kinda tricky," he said with a lopsided grin. "Anyone check to see how the other guy is?"

Charlie now caught up with the inventor. He, too, skidded to a halt.

"Son of a gun left the scene. Are you okay, Bud?"

"Yeah. Having the five-point harness in these test cars kept me from getting bashed around. The air bags—all eleven of 'em—popped out. I've never felt so cushioned in all my life."

In the distance they could hear a siren coming from the direction of Enterprises. As Bud and Charlie discussed the accident, Tom got on his cell phone and called the sheriff's department. This was their jurisdiction. He was just describing the truck, plate and general area of damage it would have sustained when a fire truck and ambulance came up from the Enterprises to auto plant tunnel. Both turned around and came out the main gate.

With no damage or leakage or fire, the larger truck returned to the tunnel while Bud got a good going over by Doc Simpson.

"How fast was the other guy going?" he inquired.

"I'd guess perhaps fifty-five to sixty. By the way, I'm Charlie Van deGroot, the new manager of the car company." He reached over and shook the doctor's hand.

Doc smiled. "I know. I'm supposed to give you your company physical tomorrow. If you can keep building them like this one, then more people like Bud here will survive accidents. I see no trauma or anything, Bud. You'll probably have bruises from where

the airbags slapped into you, but it beats the alternative.”

Bud nodded. “I’m sure that if I were to tell my wife about this she would see the logic. *If* I tell her I am certain she will also tell me that I can’t come out and play any more. So, can we keep this to ourselves?” He looked like he was genuinely worried.

Everyone nodded.

A few minutes later as the ambulance was just pulling onto the road again, a Sheriff’s car came around the same corner as the truck had.

“Hey there, folks,” the middle-aged deputy greeted them. “First, is anybody injured?”

Tom stepped forward. “Hi, Ernie. Bud’s okay but we have no idea about the other guy. He stopped a few seconds and then sped off in that direction.” He pointed.

“Dispatch put out an all points bulletin a couple minutes ago. So, what exactly happened?”

Bud walked over and placed an arm around the deputy’s shoulders. “Well, since it was me who got clobbered, let me tell you all about it.”

The two wandered off to one side. Bud regaled the man with his story and the lawman wrote several pages in his notebook.

Just as they came back the radio on his shoulder crackled to life.

*“All Essex County patrols. Be advised subject vehicle has been located approaching Pottsville. Driver crashed into a ditch, exited vehicle and attempted to elude two deputies on foot and was tasered. He is in custody now and is being taken to medical facilities for various injuries and for blood alcohol test. Again. Suspect in the Swift car plant accident is in custody.”*

“Well, that’s a relief,” stated Bud. “And here I was thinking some industrial spy or international hit man was out to get me! Turns out to be some drunk driver. Guess this was simply a wrong place, wrong time sort of thing.”

Tom pursed his lips. Something didn’t feel right, but he chose to say nothing other than, “You may be right.”

As soon as the deputy got Bud to sign his statement the lawman climbed back into his cruiser and drove away.

Bud, Tom and Charlie carefully examined the entire coupe. There wasn’t a single scratch on the surface, only a lot of dust.

“Let me get a flatbed over here and we’ll have the techs give it



the once over before we turn you loose again,” the manager told them.

At the moment Bud wasn't particularly happy but an hour later when the car had passed the exam he climbed back in and took off. This time he stopped at the gate and checked both ways, twice, before pulling out.

Tom and Charlie talked for another quarter hour before the inventor excused himself and returned to Enterprises.

Before concentrating on his computer and the invisibility panel he gave his father a description of the “accident.”

“The only thing is, Dad, I'm not entirely convinced it was an accident!”

Damon Swift looked at his son for a moment. “How can you be certain?”

“First,” Tom said touching his left index finger to the one on his right hand, “that truck had a Connecticut license plate, but there is no normal route that would get the driver from there to here. Not even a scenic route would put anybody on that road. It's one of the chief reasons we built out there and not closer to the freeway to the west.”

Mr. Swift nodded.

“Two, of all the times to have *just happened* to drive by, why that exact moment? Everything happened fast, but it didn't look like he made any attempt to use his brakes. He may even have sped up. It just doesn't add up.”

“Why don't you see if Harlan has security camera video?” Mr. Swift suggested.

Tom brightened. “I'll do that!” He picked up his phone and a minute later was describing the situation.

“I've just been looking at the video you are asking about. Tom. It tells an interesting tale. I'll be over in five.”

When Ames walked in, he went straight to the conference area and picked up the remote control, pressing a sequence of buttons. A still frame showing a deserted country road came on.

“That is a shot from the camera at the far west corner of the perimeter. Now,” he said as he pressed one button repeatedly bringing the picture into zoomed mode, “if you see over to the left...” he went to the screen and reached up to touch one spot, “... right over there is something very interesting.”

Damon and Tom came to stand next to him.

“That’s the truck!” Tom exclaimed. “The one that clobbered Bud.”

Harlan stood back a little. “Watch,” he suggested. He pressed the **PLAY** button and the video didn’t seem to move.

“Uhh, is the video supposed to be stopped?” Tom asked.

“But it isn’t, Tom. See how the little breeze we always have out there is making the scrub grass wave around?” When Tom nodded, he continued, “Just watch for another moment... and... there! Bud just drives up to the gate and the pickup truck pulls onto the road. See that dust billowing? The driver was hitting the accelerator to get up to speed.”

They watched as the truck, showing no sign of slowing down, plowed into the back of the coupe and the car practically jumped into the air. The truck continued on.

Ames switched to another view. “This is the camera at the other corner, very close to the curve where that driver waited. I am going to have to put a wider range swivel mount on the cameras. We can’t quite see the truck in this shot until he pulls out.”

They watched and the nose of the truck came into frame, the rear end swinging from side-to-side as the truck picked up speed.

“About the only thing I can see, even with the best magnification my little desktop computer can give me is that he appears to be male, dark hair, sunglasses and something on his arm.”

He backed up the video so that a single frame showing the left side of the driver was on the monitor.

“Harlan. Give Tom the video file. I’m certain he can pull some more detail out of that,” Damon directed.

“Will do, and gladly. I know the sheriff’s office says they have the man, but without some evidence showing him a bit better they will most likely have to let him go after a preliminary hearing.”

When the video file arrived half an hour later Tom ran one-second of the footage through a digital scanning process to turn the standard definition image into something that broke each pixel down into sixteen separate pixels.

It was an offshoot process from his long-range video system, the SuperSight and its smaller “cousin,” the Digital BigEyes.

Tom carefully outlined the relatively small area of the video that would need to be enhanced.

The first eleven of the thirty frames gave him nothing so he cut

those from the file. The next fifteen showed various pieces of the man and his left arm. Tom began with the first of these letting the system smooth, enhance and combine each pixel subset. It took only a second before the center of the image began to clear and just thirty seconds for the entire area he had indicated.

This frame wasn't much of a help, so he turned to the next one.

It required him enhancing seven of the frames until he had something that made him smile.

Not only was the left side of the man's face now mostly visible, his arm sported a tattoo of a smiling green teddy bear sitting on top of the head of a snake whose body coiled up around the bear. It wasn't something many people were likely to have, and what made it even more unique was the name, "Sally" that appeared along the snake's body.

He went ahead and processed the final frames but nothing else gave him as good a view as the single frame had.

Tom called Harlan.

"Come on back. I've got a little something to show you. If you like it I can give you a beautiful three-by-five foot poster!"

When the Security chief saw what Tom had managed to do he leaned down and kissed the startled young man on the forehead.

"Incredible! So, other than that I see no reason for enhancing the entire thing."

Tom shook his head. "Don't you need something to use to identify the truck or the area?"

Harlan thought a second before nodding. "Sure. It will help in court but for now just this ought to keep the man in jail for a few weeks."

Tom asked him to stick around. He then went back to the earliest frame from the original video showing the front of the truck.

"You left the first camera's shots in the monitor's buffer when you went back to your office. I downloaded them and found this—" He hit a key on his keyboard and a new picture came up. It was less distinct but it showed both the speeding truck as well as the coupe with Bud visible as he had begun turning onto the road.

"It'll take about fifteen minutes to do the entire thing, but let me just frame the front bumper and cab." He did it and pressed another key. The computer started its enhancement process and a minute later Harlan had to sit down.

“That is incredible,” he said as the picture of the license plate and the driver’s face were now recognizable, “and when do I get one of those?”

Tom laughed. “It’s already available as a downloadable program, but it takes a really powerful computer. I’ll get one like mine installed in your offices by this time tomorrow,” he promised.

Harlan asked for high-resolution printouts before leaving to call the Sheriff’s office.

Two hours later Tom phoned him to say the full frame pictures from the two cameras were available for downloading.

“I’ve watermarked them so go ahead and send them to the Sheriff and whoever else, like the County Prosecutor.”

He was hanging up the phone when Bud waltzed into the office. If someone didn’t know he was a happily married man they might interpret the look on his face as being that of a man newly in love.

“I am totally in love with that little coupe, skipper!” he declared, sitting down. “You are absolutely right about it having too much oomph, and I’ll be sad to lose that, but she handles like a dream. No lag between applying a little pedal and speeding up. No bogging down when I raced up the hill to the new neighborhood. Oh, and I need you to get a security sticker on that thing. The Marines up there about had a fit until they saw it was me.”

The neighborhood Bud mentioned was just up the hill across from the main gate at Enterprises. It was Swift property but had a Marine detail guarding it as it both overlooked the grounds of Enterprises—the original owner had tried to use it as a base for industrial spying—plus it contained the newest FAA control tower handling air traffic and tracking for the entire northeast portion of the United States.

“Can do,” Tom replied. “Speaking of ‘do,’ what did the two of you find out about one another?”

With a big smile, Bud told him, “We raced all up and down the roads around the plant and Enterprises before doing the hill thing, then we used the southern runways as a race track. She got up to one hundred-thirty-two once I got over my butterflies.” He looked seriously now. “She floats a little at anything over one-fifteen. I would actually hate to encounter either black ice or hydroplane on water.”

Tom nodded. “And, that is why she will be controlled to just one hundred-five.”

They spoke about many of the flyer’s impressions before talking

about the mileage.

“I clocked just over one hundred miles this afternoon. Almost none of it at reasonable speeds, yet when I topped the tank up I had used just under two gallons. So, even at race car speeds it gets about fifty miles per gallon!”

The inventor was about to ask something else when his phone rang. It was Harlan.

“Tom. I’ve got two things to tell you. The first one is that the man they have in custody has that tattoo you pulled out from the video. When they showed the picture to him he would only tell them to get him a lawyer.”

“That figures. What is the other thing?”

“Our little visiting jet. It turns out that the engine wasn’t an APU after all. It is the small engine from a Navy drone. They use them for target practice. A goodly number of years ago several of them washed up on a beach down south. It so happens the contractor building them hated to see their hard work just sink and so they added some buoyant materials. The hope was they could be recovered and rebuilt, but nobody told the Navy so they figured they sank.”

“Does anybody know how many might have not gone quietly to the briny deep?”

“Nine by all counts. Six washed up on that beach in Virginia, one was eventually used for a little target practice. That leaves two and I’m pretty certain we have one of them.”

Tom thought for a moment, then asked, “What about the controls?”

“Reprogrammed and running on a different channel, but it’s the servo guts from the drone. A drone, rather. We don’t know if this was cobbled together from the missing pair or what.”

Little if anything about this made sense, but it was all worrisome. Tom had to ask, “Do you think this was some sort of warning to us?”

Harlan thought a while before answering. “No. I think it was a test to see if something small could sneak in here. Something about big enough to carry one person.”

Tom shuddered. It had happened before. Determined individuals had managed to evade his security measures around Fearing Island on at least two occasions. And, two very determined protesters had used a dust storm to their advantage in New Mexico to get close enough to the Citadel’s main building

complex to get pictures of themselves holding protest signs.

Right here at Enterprises a pilot had once used a phony distress call to hide the fact that he was bringing in a second man bent on sabotage.

Fortunately, little ever came from these incursions. Harlan Ames and his team saw to that.

“Now they know we can intercept something like that drone, so what do you think they’ll try next?” Tom inquired.

“As much as I hate to say this,” Harlan told him, “I fear the next one, if there is to be another, might contain some sort of bomb.” He cleared his throat. “Not in the little sticks of dynamite sort of bomb. This world has become a dangerous place filled with dangerous weapons of war.”

By the time they hung up, Tom and Harlan had hatched a plan of action should another small aircraft head in the direction of Enterprises. It would involve some digging and pouring of reinforced concrete, but it would be a security and safety measure that might save property and lives.

Tom’s father came into the office soon after the phone call ended. The inventor filled his father in on what Ames had told him, and detailed the new security measures.

“I see,” Damon Swift said. “So, one of my fears seems to have come far enough along to require action. I agree, wholeheartedly, with the plan for the bunker. So much so that I agreed with Harlan two months ago and started building one about four miles from here.” He smiled at Tom’s look. “I was completed about six days ago. The only question I have is what is to stop whoever this is from detonating a dirty bomb in the skies before we have the chance to contain it?”

“I’ve only had a minute to think about that, but here’s what I’ve come up with,” Tom told him. “Our very first drones out over Fearing were tiny jet aircraft packed with electronics that would jam anything electrical in an aircraft, then allow the drones to force the pilot into landing. If they didn’t land, they would crash.”

Mr. Swift smiled and nodded. “I know. I helped develop those if you recall.”

“Yeah,” Tom said blushing a little. “Anyway, we gave up on the electronic approach a couple years ago. I propose we reinstate that in our Attractatron drones. If we jam all signals coming in then whoever is flying the... hmmm... the whatever it is they are using will lose contact and can’t manually set off an explosion. And, if we can capture it and rush it into the bunker, then anything on a

mechanical timer ought to be contained before it can go off.”

“Okay. I see that you have most of it thought out. Just one more possibility. What if they use some sort of motion switch like an old mercury tilt switch? What if everything is set to go off should the aircraft be suddenly stopped or flipped over or anything like that?”

Tom smiled. “I think I have a solution for that as well,” he said before he filled his father in on his thoughts.

Five minutes later the older inventor patted his son on the shoulder and smiled. It all seemed reasonable to him!





## CHAPTER 5 /

### REVISIT TO THAT CLOAKING THING

DURING THE next week, the first test coupe had been built, torn down and rebuilt seven times. The learning mode for each of the robotic manufacturing devices had performed, with near perfection, the final one of these.

While this was going on, the subassembly hall had been buzzing with practice runs. Each time a new component was finished, a team of engineers tested it, tweaked it, and finally tore in back down. Only a few of the components needed to be fine tuned.

With the official opening of the assembly hall just a few days away, Tom returned to his invisibility sheet. For two entire days he researched new technology advancements he might incorporate into the thing, only to find that nothing would make an appreciable difference.

The nearest he came was in running a simulation to see what might happen if each and every camera fed a single 3-D screen and had an individual computer to process everything.

What it showed was marginally interesting, but not a real answer. It also showed that the very surface of the monitor became RADAR reflective, defeating the process!

Still, it was possible to overcome simple two-dimensional movement as long as it was fairly slow and kept at a steady pace.

Jiggling, as in a person walking or more specifically as if a Navy ship rolling along the waves, was still impossible to overcome.

He was about to put a series of sketches of circuits into his personal safe when Mr. Swift walked into the large lab.

“Hello, son. I just came by to remind you that we do the dedication and line blessing on Monday. Just wanted to catch you before you went home for the weekend.” Noticing the papers in Tom’s hands he inquired, “Any progress on Admiral Hopkins’ little project?”

Tom shook his head slowly and with a look of sadness. “Not really. For nearly every possible advance there are three things that make it either impossible or counter other things I’ve accomplished. Frankly, it’s a bit depressing. All I’ve figured out is that is isn’t so much the imaging side of things, it is the broadcasting side.”

Mr. Swift frowned. “I would have thought it is a combination.

Or rather, what goes on in between. The processing stage. What about that?"

Tom shrugged. "For all intents and purposes I ought to be able to eliminate the processing aspects. Do a one-to-one camera area to screen ratio. And, I've even simulated that. Works pretty well."

"Okay. So, what is the problem?"

"The ships are already mostly RADAR invisible. My simulation shows that I can do a fair to good job of the visible to human eye work. But the problem is that adding any such system to the outside of a ship renders it visible to RADAR again."

"I see," Damon told his son. "One or the other, but not both?"

"Right. Guess I'll head home and try to start fresh on Monday."

"After the ceremony?"

"Yeah. After that!"

They walked out of the lab and down the hall to the stairs. Both men exercised regularly and took the two flights of stairs up and down when possible. They continued their discussion on the way down and out to their cars.

"Is there some way to incorporate the screens behind something that is RADAR deadening? Like tomasite," Mr. Swift suggested.

"I thought of that already, Dad. Unfortunately, in order to be completely clear and show exactly what is behind it, the screens have to be as flawless as a giant telescope's mirror, and that—"

"—means mirror-like reflections, would be my guess," Damon admitted. "I didn't think that one through."

Now, Tom laughed. "Well, I thought it through and even tried coming up with a special coating to only sparkle randomly. Like sunlight off waves. In fact," and Tom reached into his pocket pulling out a piece of plastic about two inches square, "I was inspired a little by something Bud sent me in a birthday card this year, Look."

Damon turned the plastic over and over and then moved it from side to side. He laughed.

"I haven't seen one of these since I was a kid. What were they called? Magik Tilts? Or, was that a trade name?"

"Lenticular printing," Tom offered. "Two pictures divided into thin strips horizontally with a double lens overlay. Tilt it one way and one lens face gives you picture one, the other way gets picture two revealed."

“That’s right! Oh, I loved these. But,” now he paused and stopped reaching for his car door, “what in the world made you think of these?”

With a rueful chuckle, Tom told him, “The lens I can make from clear tomasite so the RADAR thing is taken care of. The angles in this stop the reflection of light. A real bonus is now I might use the same lens for both the camera pick-up as well as the display.”

Mr. Swift thought about this for a moment. “Unless you are telling me that it was a failure, is this something I ought to be thinking about so we can discuss it on Monday?”

Tom nodded. “But, only after the ceremony.”

“Right. *After* the ceremony.”

Tom was feeling a little better about things by the time he arrived home. He has been nervous about what his father might say when he saw the lenticular lens. But, so far it was the only positive step he had made in the project.

Bashalli greeted him with a big hug and several kisses. As she led him over to the sofa, she told him, “I have had a wonderful conversation with a woman who is consulting with our advertising agency. You know how much I have been attempting to use contractions?”

It was true. Her English language classes as a teen had concentrated on exact and proper word usage. The instructor had made it clear that... “Contractions are contradictions!” and so she and the others grew up not knowing how or when to use them.

Tom smiled and nodded. “Sure. And you’ve done some of it, just not very often and you’ve never looked like you felt comfortable. So, what about this woman?”

Bashalli explained that the woman had been brought in to help the two copywriters look at new ways to word things. Their patterns of speech and writing were beginning to make all ads look and sound the same.

“She and I were talking when she let out a great laugh and said to me, ‘Oh, my god! You don’t use contractions! How precious!’ Well, I told her I did not want to be precious so after her meeting with the writers we spent an hour together. Do you want to hear what I have learned?”

“You bet.”

“Okay.” She took a deep breath. “*I’ve* found I *don’t* think that *I’ll* want to speak without using them, and *wasn’t* that a nice way to begin?”

Tom broke out laughing. He hugged his wife and congratulated her.

“Now, do not— I mean *don’t* expect me to do it all the time, but *you’ll* be surprised at me from now on, I hope.”

Tom whispered into her right ear before kissing it, “All you need to do is to get over emphasizing them and you will sound like an expert!”

He spent most of the weekend relaxing around the house. With late autumn approaching the last of the leaves needed to be raked and he had promised Bashalli weeks earlier to clean out the gutters before the rains came and they overflowed.

By Monday he was tired, but in a physical way, not mentally as he had been on Friday.

He met Bud and Sandy at the side of the Administration building, and they hopped into his car. The quick trip around the buildings and through the underground tunnel brought them up and into the now packed area between the main gate and the buildings.

Tom turned to their right and worked his way back to the fence and around the nearly complete Administration building. As he knew, the lot behind it would be nearly empty. He smiled on seeing his father and mother getting out of their sedan, as were several other senior employees.

They all took note that around the large lot that would be used to stage completed cars sat the semi-trailers and broadcast antennas of at least fifteen networks and foreign new agencies. According to Harlan Ames, who told them later, the trucks had begun arriving the day before all trying to get the most advantageous positions and all vying for ground placement for their cables.

While Tom and his father joined several others at the raised platform, Bud escorted the ladies to a set of chairs in front that had been taped off.

The ceremony went off without a hitch. Damon gave a short speech praising all involved in getting the factory built in record time, Charles Van deGroot was introduced as the incoming CEO for the company and gave a short speech of thanks for the Swift’s faith in him, Jake Aturian gave a speech admitting that he was slightly jealous of the gleaming, new facility.

“Hopefully, once the mortgage gets paid off, Damon will let me go to the hardware store and buy a couple gallons of paint to spruce the old Construction Company up with!”

Tom gave his speech indicating that he was astounded at the response the general public had been showing.

“As far as I have been able to find out, no single car has ever had so many pre-orders in history. To everyone out there, I am positive your faith will be rewarded.”

Then, he introduced the guest speaker who would be officially opening the plant.

“May I introduce to you all, the President of The United States!”

A roar went up from the crowd and the tall man who had been overwhelmingly elected just a short year earlier came up from the back of the platform where he and his Secret Service contingent had kept him hidden.

He talked for five minutes about the spirit of America and, “the spirit of enterprise, or rather should I say of Enterprises! On this momentous occasion it is an honor to be asked to take this red rope that Tom has just handed to me, and to tell you all that I do hereby declare this newest in a proud tradition of American factories, one dedicated to the creation of a one hundred percent U.S. manufactured car, to be well and truly open!”

He pulled on the rope that, in turn released a half dozen large helium-filled balloons into the air. They took with them smaller ropes connected to a large sheet of thin fabric that had been covering the open end of the assembly hall.

As they rose, the crowd made loud, surprised and pleased sounds.

It had been planned to have the first dozen cars staged near the end of the assembly line. One by one they drove out, along a cordoned off path, and into a corral area where they would be on display for several hours for the crowd to inspect.

“I’m sorry I have to run, Tom,” the President told him over the applause. “Duty and D.C. calls.” They shook hands, and the President descended the back stairs, climbed into his limousine, and drove back to a side area in the perimeter fence that Harlan had removed for their safe and unhindered exit. The Presidential helicopter waited for him a hundred yards away. That would take him back to Enterprises and Air Force One.

Tom and Damon hung around for two hours answering individual questions and giving each of the news teams a five-minute interview.

While this was happening, Bud drove the ladies back to Enterprises.

It was well past noon when Tom and Damon got back to the office, had a meal brought to them by their chef, Chow Winkler, and figuratively put their feet up for a few minutes.

When the Western chef came back to collect their dishes, Damon complimented him. “Chow? That prime rib sandwich was incredible. You really outdid yourself. And, just the way we like it. Right, son?”

Nodding enthusiastically, Tom added, “And the horseradish cream sauce was marvelous.”

Chow beamed. He had already taken off his ten-gallon hat and set it on his lunch cart. Now, he picked it back up, placed it over his heart and bowed.

“It’s a pleasure makin’ food fer you two. But, I got ta admit I got me one o’ them al-tear-eyore motives.” He turned pink and began to fan his now glistening face. “Kin I sit a spell?”

Making a sweeping motion, Damon told him, “By all means. And please tell us what is on your mind.”

“Wahl, you both were so nice ta let me an’ Wanda have our weddin’ right here at Enterprises, an’ then lettin’ me take her up ta Mars fer the honey-moon, and all that, I s’pose I don’t really have the right ta ask fer anything more.”

“You go ahead and ask, Chow,” Tom told him. “If we can do it, we will!” He looked at his father who nodded his agreement.

“Okay. Here goes. Ya see, Wanda don’t much like me riddin’ my little motor scooter all the way out here each mornin’ and all the way back, sometimes in the dark.”

Tom and Damon shared a look. They believed they knew what was coming and both knew the other would approve.

“Go ahead,” Mr. Swift prompted.

“Wahl, I was wonderin’ if—now once ya get all o’ the other orders out o’ the way—if’n I might be able ta buy me one o’ them new cou-pays they’ll be a-makin’ at the new factory?”

Damon laughed. “Chow. As far as Tom and I are concerned, once we have the government cars built and once they give us their approval, and deliver on our longest-standing preorders, you can have one of the next one’s off the line. At Enterprises, or rather I should say, and the Swift MotorCar Company cost. I speak for Tom when I say we are delighted that you would want one.”

“What color do you want?” Tom inquired.

Chow blushed. “Kin I get me one in red? Allus wanted a shiny,

red car.”

It was agreed that in about another couple months he could go over and watch as his very own shiny, red Swift-100 Coupe was rolling off the line. And, that the cost would simply be deducted from his wages over the following two years. It would be less per month than if he had to buy it at retail, so he quickly agreed, shook both their hands, and left whistling a very happy tune.

“That is one happy Texan,” Tom declared as the big door shut. “Okay. So now I have to ask if you gave any thought to the lenticular lens thing, or did you get to do gutter cleaning duty like I did?”

Damon placed a fatherly hand on his son’s right shoulder and gave it a little squeeze. “My dear and only number one son,” he started. “You are, in the scheme of things, a young married man. Barely out of boyhood. As you grow and mature you will find that a contact list in your tablet computer that includes gardeners, arborists, painters, plumbers, electricians and, in this case, a good gutter cleaning service, will see you remain safe while stimulating the local economy. And, if Bashalli raises an eyebrow over this, do what I did. Remind your young wife that not only will you remain safe from physical harm, but your life insurance policy, held by this company, will not pay out if you break your neck doing something like climbing up a wobbly ladder and mucking out your gutters!”

They took seats in the conference area.

“Now, let me tell you what I thought about while a Mr. Troy Putnam and his assistant, I believe his name was Brian, cleaned my gutters on Saturday. I can see a great deal of possibility in creating flat panels of lenticular devices. My estimation is that one of the Littoral class ships has about sixty thousand square feet of surface, top and both sides plus the fantail, to cover. I also estimate that you might come in as under four ounces per square foot, so you are looking to add between seven and eight tons to the ships.”

Tom nodded although his estimates had been a bit higher.

“My assumption is that you will find that the various angles are going to play against you. Unless you find a way to account for the rolling of the ship, the camera elements are going to be bobbing up and down making the lenticular display move like a very shimmering oasis in the desert. Perhaps even to a greater degree.”

Tom sighed. It seemed to him he had been doing a lot of that lately.

“Yes. I did think of that. And, it isn’t so much on the camera side of things; I can image stabilize for that. It’s as you surmised, on the display side where things fall apart. Looks like it’s start all over time. Again.”

“Well, I’m not saying I think you throw the metaphorical baby out with the inventive bath water. No. In fact I would believe that some variation of the lenticular lens might give you the best possible input. Let the computer take roll and pitch into consideration when selecting which of the image lines to use, stabilize, and then feed to the opposite side.”

“There is one other thing I need to account for. The water under the ship.”

“How do you plan to handle that?”

“See if this makes sense to you. These ships are fairly tall all along the middle sixty percent or so. I was thinking of mounting three or four hi-def cameras up high and pointing down enough to just miss getting any of the wake or the ship and then feeding that into a computer to multiply if to cover the entire length and width of the ship.”

He looked hopefully at the older inventor.

“Well,” Damon said slowly, “short of having just a preprogrammed video to play—and I see all sorts of problems with that method—your only alternative would be to fly a small drone beside the ship looking straight down. No angle to account for that way.”

“Ah, but I’m certain I can skew and distort the images to flatten them out so from maybe a thousand feet up you can’t really tell.”

“I would think that actually displaying the proper images when viewed from above would be the major problem, Tom.”

Twenty more minutes of discussion went by before Damon had to take a call from one of Enterprises’ chief customers for an aviation electronics package.

Deciding that he needed some fresh air, Tom got up, stretched his back a little and headed for the door. As he left the office he asked Trent to TeleVoc him if his father should ask for him.

“Uh, Tom. I’m not sure that you have ever noticed this but I do not TeleVoc. I wear the pin because it is a security device, but even on the very few times somebody has tried to reach me I simply refuse to take the call.” He smiled and shrugged.

“Even dad?” Tom asked.

“Your father knows my aversion to that method of



communication. He never uses it to reach me. Besides, I can be found at my desk almost all the time.”

The inventor’s eyes narrowed. “Now, I don’t want to contradict you, Trent, but I’m sure I have spoken to you on the pin. Why, just last week—”

“No, Tom, you may have been speaking on *your* pin, but it was routed to my telephone. I’m sorry to be a disappointment, but I also do not send unsolicited pictures of the food I am eating, details of acquaintances drinking, furry kittens dressed as samurai warriors, or whatever it is that people do these days. Other than screening yours and Mr. Swift’s, I also use electronic mail sparingly and only when absolutely necessary.”

Tom grinned. Secretly he wished that many of the types of “information” shared among people would just go away. He enjoyed face-to-face communication with friends and family members. In fact, as he thought about it, not even Sandy Swift-Barclay with her nearly constant desire to be chatting used that sort of electronic communication.

“No problems, Trent. I’ll keep that in mind. Anyway, have me paged when he comes back, please.”

On leaving the Administration building Tom headed around to the right and the meandering pathways that ran between all the buildings in the central cluster. He had just stopped at one of the many pieces of outdoor exercise equipment when the alarm sounded all over Enterprises and in everybody’s TeleVoc.

“Incoming aircraft. All personnel take cover. Repeat, Take cover. We have another visitor *coming in fast!*”



## CHAPTER 6 /

### ANOTHER FLYING INTRUDER

AS HE ran at top speed to the tower, Tom TeleVoc'd the lead controller.

“Daniel? It’s Tom. I’m on my way up. How much time?”

“We got a good fix on it from the big tower up the hill. It painted the RADAR from about fifty miles out. At the time it was going around three hundred but it has slowed to under two hundred. If it keeps that pace we have nearly four more minutes.”

“Great. I’ve just reached the bottom of the tower. See you in thirty seconds!”

He leapt into the elevator and pressed the UP button three times. It was a code to make the elevator run at its top speed. Tom stepped out and into the circular room at the top shortly after that.

“Have we got the drones heading for an intercept?” he asked.

“Four on their way, skipper,” a voice called out.

Tom stepped up to the chief controller and placed a hand on the man’s shoulder. “What’s it looking like, Daniel?”

Without taking his eyes from the scope, the tall, slightly balding man told him, “It’s maintaining one-ninety for now. It’s on a straight course for here. It slowed down, by the way, as soon as we got three swipes of the RADAR on it. Must have some sort of detection circuitry.”

Making a decision, Tom told him, “Let’s turn off the RADAR for about twenty seconds. See if it speeds up. The drones can be tracking its heat signature during that time.”

A few quick button presses and it was done. The RADAR equipment went into stand-by mode and the drones were switched to thermal tracking.

Ten seconds later a report came in from the drone pack.

“Ahhh!” Tom said. “I thought so. It is speeding up. Go ahead and hit it with RADAR again for ten seconds.”

As soon as the tracking system resumed, the jet was seen to be slowing down again. But the drone pack was swinging around and just seconds away from their intercept.

His heart now pounding with anticipation—mixed with more than a little dread if something should go wrong—Tom gave the

command to complete the capture.

Three things happened, none of which anybody at Enterprises could see.

First, the drones finished their wide sweep and circled around to match the path of the incoming aircraft. One positioned itself above the small jet, another below and the other two just off its wings.

Second, exceptionally strong jamming signals were emitted from all four drones. Had anybody been there to watch they might have seen the cockpit fill with acrid smoke as every electrical circuit fizzled and shorted out.

Third, and at the same instant as the jamming occurred, the powerful Attractatron beams grabbed the little jet. They were set to pull so hard and at so wide a band of materials that everything inside and out was held absolutely stationary. Nothing could move.

Everyone in the control tower let out their breath when the **CAPTURE** lights turned green. All had been holding theirs and it made a whooshing sound that caused everyone to smile at the absurdity of it all.

“Capture complete, skipper,” came the call from a woman on another scope. “Heading for the bunker. They will enter in three minutes.”

“Great! Keep us all advised, Gina,” he requested. He imagined, for a split second, how surprised he might have been about the “bunker” declaration had this happened two weeks before.

That bunker was another result of Tom’s tunnel digging equipment, the same ones he used to make all the underground tunnels for his transcontinental freight-carrying bullet trains and the one between Enterprises and the MotorCar Company. In this case, in a piece of land going up a hillside about four miles away, already owned by the Swifts, a tunnel of about three hundred feet was dug and triple coated with the materials used in Tom’s other tunnels. A series of two overlapping tunnels had been necessary to provide the best entrance for the drones and whatever they might capture.

Double outer doors had been manufactured at the Construction Company and mounted on hinges deeply set into the bedrock found just ten feet underground.

“They’re making their swing to the entrance,” Gina said. Everyone not manning equipment had already stepped to the windows facing the incoming flight, all holding BigEye binoculars

to their faces.

“Got it!” Tom cried out. “Oh-oh! I’m seeing a lot of smoke. Get the drones moving faster, please. We might have something bad about to happen.”

He needn’t have worried. The smoke he saw was from the circuit overloads. However, the drones did move as quickly as they could into the big open hole in the hillside, and as they watched, the doors swung shut from the inside.

As soon as they had been opened the five cameras inside had started broadcasting their images onto a series of monitors that Tom now walked over to look at.

Everything was floating in the large tunnel. The drones kept the small jet—looking less like the first jet and more like a repaired version of a Navy target drone—held fast between them for a minute before Attractatrons Tom had installed in the tunnel took over.

With the jet still held firmly, the Swift drones now backed up toward the entrance where they settled down to the floor. It was hoped that drones might be recovered and so a fourth door, hinged at the ceiling, had been installed at Mr. Swift’s direction. It now swung down on powerful hydraulics until it closed off the main tunnel.

“I’m detecting some radioactivity, Tom,” another technician said. “The Damonscope-3 shows high levels of plutonium and the x-ray has a small mass of about one square centimeter.”

“Can you determine the trigger?” Tom asked now standing behind the man.

“Looks to be encased in some simple plastic explosives. Maybe a couple pounds in there. Right there,” he pointed at something he had zoomed in on, “that’s the blasting cap to set things off. The only thing I see is that there’s no power source. As in no connecting wires that could ever set that thing off. Huh?”

“Huh, is right,” Tom stated. “Okay. Let’s keep a good eye on everything for twenty-four hours. If nothing else happens then I want those drones recovered. Have each of them decontaminated before being returned to service.”

Tom also ordered that the three reserve drones currently stored in Hangar 9 be pulled out and readied to take to the sky within the next hour.

“We’ll be a drone short overall but we’ve already seen what just four of them can accomplish. Let’s hope we can get the others out and in service tomorrow.”

As he turned to leave, Tom had a final thought.

“Before the techs go out to retrieve the contaminated drones and clean them, see if the folks in our Nuclear Engineering department can determine exactly what the source of radiation is in that thing. If need be, bring someone out from the Citadel, even if that takes an extra day. I’m going to have a word with Harlan Ames.”

He left, opting to take the dozen flights of stairs down. He wanted to burn off some nervous energy that had been building in his body.

He set off at a good jog after reaching the ground and was soon striding into the Security building.

“Is Harlan in?” he asked the young woman at the front desk.

“Why, yes he is, Tom. But, he is on the phone with the FBI right now. I think it has something to do with that aircraft attack a while ago. Want to take a seat for a minute?”

“Sure. Thanks.” Tom sat opposite her desk for a couple of minutes before she cleared her throat and tilted her head to indicate he could go in.

“First, it is good to see you, Tom, and second—before you get into what you came to discuss—I just got off the phone with the FBI. It’s about that drone and the radioactive package it might be carrying. They are mighty curious about it. In fact, I had to dissuade them from rushing a team up here to confiscate it and haul it back to Washington. They were all huffy and puffy about it until I reminded them that there appears to be some sort of triggering explosives in there and that we have it perfectly contained. Oh, and I promised them we would get an expert in here no later than tomorrow to tell us exactly what radioactive source material is in there.”

Tom chuckled. He wasn’t surprised to hear that his Security chief already knew as much as he did. “Well, thanks for stealing my thunder. That’s about all I came to discuss. *Including* the getting an expert in. I’ve got the word out to our nuclear folks to tell me if they are prepared to do that, or whether we might need to bring somebody out from New Mexico.”

Although the inventor was smiling, Harlan detected something behind it. Something that spoke of a deeper worry within the younger man.

“What’s the elephant in the room, Tom?”

“Huh?” Tom’s head that had started to look around the room snapped back to look at his Chief of Security. “Elephant?”

Harlan nodded. "Yes. The great big, unspoken thing that is right in front of us both."

"Oh. I see. Well, now that you mention it, I was wondering and worrying about what sort of disaster we may have ducked here. I mean, what if that drone had some sort of hair trigger, or something rigged to respond to our RADAR, or even a GPS-controlled trigger? And, what if dad hadn't already built that bunker out there?"

They sat looking at each other for a full minute.

"I'm not certain anyone can account for each and every possibility, Tom, but my elephant runs more along the lines of who sent that? And, where did they get the nuclear materials? Worse yet, was this just a test for some larger and more destructive attack to come?"

A horrified look came across Tom's face. "What do you mean?"

"Well, I mean what if Enterprises is just a handy target to practice on? After all, that first jet was just a hollow shell meant, perhaps, to simply test to see how close it might be able to get. This latest one could have been sent to see if it could get into our grounds with a bomb."

"But," Tom protested, "the preliminary scan showed that the explosives were not wired to anything that might make them go off and scatter that nuclear material."

Ames nodded. "Right. And that either speaks of very sloppy people out there, or of someone with enough nuclear materials to waste a small block of it on sending a message. 'Look what we can do and look at what we have.' That sort of thing."

The inventor rolled a few thoughts around in his head before speaking again.

"That sounds more like terrorists than anything else, doesn't it?"

Again, Harlan Ames nodded. "I'm very much afraid that it does, Tom. That worries me a great deal and positively petrifies the FBI people. These two drone-based aircraft may have been throw-aways for them. As I said before, practice. But, what if they try this with some other type of aircraft. A business jet, for instance. We've seen in the past that there are individuals who are fanatical enough to fly something with deadly intent." He left the rest unsaid.

Tom could only nod as he rose to leave.

"I'm going to have a few more drones built and extend their

search pattern,” he said. Can you get clearance from the FAA to extend out to fifty miles?”

Once he left, Harlan muttered to himself, “That’s fine for Enterprises, skipper, but what about a big city? You can’t personally protect everyone in America.”

When Tom arrived back at the shared office it was to find Bud and Sandy waiting for him.

She was standing there with her hands on her hips looking decidedly unhappy. Bud, for his part, looked miserable.

“Daddy says that Bud and I can’t both be reassigned to the car plant!” she stated more as a challenge than a statement. “You have to do something!”

Tom looked over to see that their father was absent. “*Thanks, dad,*” he said to himself.

To them, he said, “Let’s sit down and discuss this. It’s the first I’ve heard.” He took a seat, Bud took a seat across the conference table from him and Sandy stayed right where she was. She could be, Tom and Bud both knew, unreasonably stubborn.

“San? Please take a seat. I can’t—no, actually I won’t try to come to some solution with you hovering above me like a sword of Damocles.” She made a little huffing noise and then took a seat around the table, but with one chair between her and her husband. “Fine, and thank you. Now let me see if I can guess what this is,” he told them.

“My guess is that Damon Swift, the man who figuratively signs all our paychecks, has made a business decision that the two of you provide unique and important roles in this company. And I further suppose that he probably worded things more like, ‘We can’t afford to have both of you over there for a couple months at the same time.’” Tom looked at them.

Bud had a glimmer of hope in his eyes now, while Sandy had her arms crossed over her chest and a look of defiance in hers.

“Fine. I see I’m pretty close to being spot on. So, as this seems to have been left to me to figure out, I have two possible solutions. The first one is that neither of you get to go over on temporary duty. The MotorCar Company already has hired a test engineer driver, so he can do all the work.”

Bud nodded, sadly. He knew that one was coming. Sandy, on the other hand, hadn’t even considered anything but total victory. She dropped her arms to her sides and a tear leaked down her left cheek.



“But, that’s not fair!”

Tom could see her tear was real and not one of her forced, “pity me” ones. He also had to stifle an internal laugh when the thought that this was great practice for when he and Bashalli had a small child of their own.

“I suppose the other solution is equally as depressing for Sandy and me,” Bud said. He got up and moved over to sit next to his wife. She pushed her arm through his and hugged close to him, her head on his shoulder.

In a moment of inspiration, Tom told them, “Actually, the other solution is to ask you two what would be fair. So, what do you both think?”

Sandy leaned back and looked deeply into Bud’s eyes. Without turning to Tom she spoke.

“I guess that if we shared the responsibilities, maybe alternating a week at a time? Although I really hate to miss out on the first round of testing.”

Still locked onto her gaze, Bud said, “I don’t mind giving up the first week as long as Sandy doesn’t take all of the testing on. Will you leave me a few things?”

She nodded and started crying.

Tom watched as his sister and brother-in-law hugged and then kissed. Finally, they both turned to face him.

“Thanks, Tomonomo,” she said. “We’ll do what you say.”

Bud’s face scrunched up as he realized Tom really had nothing to do with this, but held his tongue when he noticed the almost imperceptible shake of the head the inventor was giving him.

Sandy got up, kissed her husband and then came around to kiss her brother on the cheek. “Love ya, Tom,” she told him.

“Love ya, too, San,” he replied as she headed for the door.

Once she left he turned to the still seated Bud Barclay.

“You, sir, are becoming a master,” the flyer stated as he also rose to leave. “Thanks. I’ll dispense with the kiss on the cheek thing if you don’t mind.” He grinned at Tom and received a grin in return.

Once Bud departed Tom sat down at his computer. He was deep in through looking through some details on the use of lenticular lens systems when Mr. Swift came in.

Without looking up, Tom greeted him with, “Chicken!”

“It’s good practice for an up and coming young company executive,” came back the reply. Nothing more was said about the incident.

Ten minutes later a call came to Tom’s phone from Dr. Cameron Wiberly, one of the top nuclear scientists at Enterprises.

“Tom, I wanted to thank you for the opportunity to go out and test the contents of that missile thing you captured. I will be leaving the office here in about a half hour.”

“I’m very glad to hear it will be you, Doctor Wiberly, going out. What can I do for you?”

“Oh, probably nothing, but I do have a question of two.” He asked Tom what sort of tests would be permissible and what he might need to avoid trying. He also asked about whether he could take a fairly large sample of the nuclear materials.

“You see, if all I have to go on are Damonscope and other scanning measurements I won’t get the full details.”

This got the inventor’s curiosity. “What do you mean by that, sir?”

“I mean, and you can stop with the ‘sir’ stuff. Makes me sound ancient I’m only fifty-three, for crying out loud! But, I digress. If I can take, perhaps, a thirty or so gram sample then I can do a great number of test on the actual material. Then, and with a high degree of probability, I can tell you where this materials comes from!”

Tom sucked in a breath and let it out as a gasp. “You can tell where this originated?”

“Well, *most* probably. You see, isotopes, and especially those coming from known reactor types located in the nuclear countries, have a signature to them. Slight variations in how the isotopes are compacted, how they react to certain chemicals, and that sort of thing. So,” he said cautiously, “do you think I can take my thirty grams?”

“Just over one ounce, huh? Well, as long as you can do it safely and we document that with the proper authorities, then I say yes. After all, it is on our property and the owners of it aren’t likely to come to claim it!”

With a chuckle the doctor told him he would have the sample back and safely locked in a tomasite vault within the next three hours.

Mr. Swift looked over to Tom as he hung up. “I can guess from your end what that was about. Does Wiberly feel he can get a good

ID on that nuclear material?"

"He does. And I need to let Harlan know about it so he can alert the FBI."

"I believe he already has."

"He's going to need to call the NRC if he hasn't already," Tom replied.

"Ah. Right. Make certain he is doing, or has done that, please."

Tom made the call.

"Well, Tom," Harlan told him after the inventor launched into an explanation of what was about to occur with Doctor Wiberly, "you see, the thing is that I am out of the office right at this very minute and you are speaking to a recording. *Beep*. Important security business has me away from my desk, and indeed the Security building, for the rest of today, so I will have to get back to you tomorrow after I finally have the opportunity to listen to this. *Beep*. Only after that can I possibly notify people at our nation's Federal Bureau of Investigation, and the Nuclear Regulatory Commission, that we have *already* actively tested a sample of the materials in that aircraft. *Beep*. Then, and hopefully with the results in hand, we can turn everything over to them and be finished with this. Hope this recorded message makes sense listening the first time through as it will self-erase just as soon as you finish listening and hang up. Funny, that. *Beep!*"



## CHAPTER 7 /

### THE SECRET IS...

TOM LAUGHED. When his father gave him a curious look, he explained the “conversation.”

“I suppose that is the way we need to play it if the subject ever gets raised,” Damon suggested. “I know that our licenses with the NRC give us plenty of leeway in how we handle nuclear materials, including the permission to take legitimate samples and to perform testing for many things. It’s the FBI that will possibly toss a little tantrum. From what I hear, they were ready to rush up here, put that drone on a trailer and drive it down the Jersey Turnpike!”

The two men talked about what the findings might mean. This lasted until a call came in that was announced by Trent.

“It’s Admiral Hopkins, for Tom.”

“I’ll take it,” the younger Swift responded. “Hello, Admiral,” he said after hitting the button to connect the call. “I might assume you are calling regarding our meeting the other week.”

“You’re close, Tom,” the Navy man replied, “except that I mostly calling to find out, straight from the source, if the aircraft I hear you have captured is what I think it might be. Or, have once been.”

“Well, sir, if you are asking if the aircraft from a couple weeks ago is an old Navy target drone, then I have to tell you, yes. In case you didn’t hear we had another one today, and the first was a homebuilt body around an engine from one of your drones.”

The Admiral blurted out several “salty” words.

“Sorry, Tom. But this is a big one for us publicity wise. All negative. It also is about to mean cancellation of a large contract we have with the manufacturer of those drones.” He described how the contract called for either self-destructing drones, or at the very least ones that would immediately sink.

“They barely have been able to provide the stipulated fuel dumping and incineration we mandated so nothing goes into the ocean waters. But, this has about been the final straw. That, however, is my problem and not yours. What might happen is that you could receive an emergency order to build about fifty replacements for us. Should I speak with Damon about this?”

“Actually, let me put you on the speaker and he can come right

in on this.” Tom pressed the button. “Go ahead, sir.”

Admiral Hopkins restated the basics he and Tom had discussed. “So, Damon, is there any way your Construction Company could pump out four dozen or so drones for us, as near this design as practical, in the next three months? We’ve got a huge combined NATO naval exercise set for one hundred days from today and will heavily rely on drones.”

“If you can get us the flight specifications I’m almost certain we can meet that. After all, we make the newest avionics package already so we know what and how the controlling works.”

They talked a bit about assurance the Swifts would need in any case of a legal dispute with the current contractor.

“Don’t worry about them. They have been well paid for not doing what was demanded in the contracts. If any legal hassle is to happen it will be us dealing with them. I’ll have the emergency contract drawn up and to you by day after tomorrow. Oh, I nearly forgot to ask Tom. Any movement?”

Tom knew that on an unsecured phone line he had to carefully work his response.

“A bit. Enough to keep me going on what I believe is a good path. We’re still not talking about days or weeks, but I’m going to go out on a limb and say this trip is going to be less than a year. Is that enough of an answer?”

With a small laugh the man on the other end replied, “Better news than I hoped for. I can now officially let out that breath I’ve been holding. Thanks, and keep me up-to-date when you can. Bye!”

“Do you really think you’ve got a good path to travel down, son?” Damon asked looking slightly worried. He knew that Tom would never mislead anyone, but he could be a bit impetuous if he thought he might be close, even if his theories had yet to be tested or proven.

“My belief is that the lenticular lens system is a good part of this, but only for the camera side of things. I still need a way to project—” Tom stopped talking and his eyes took on a far away look that his father knew well.

The older inventor didn’t say anything allowing Tom to put his thoughts together.

It was nearly two minutes later when it suddenly occurred to him what Tom might be contemplating. He nearly laughed out loud. It had been sitting in front of them, in a way, for some time. He leaned back nodding to himself as Tom looked about ready to

say something.

“Dad? You’ve already mentioned how having flat sheets on the sides and the top of the ships is pretty much a no-go. I agree. It would be a nightmare to the sailors on board to have to work around them.”

“Or walk around, son.”

“Right. Ditto my idea of inflating a bubble screen all around the ships. Now, for the flat sides and top surfaces that will never have foot traffic, we can permanently mount a system of cameras and displays. Or...” he looked at his father with a sly grin, “... projectors! As in my 3D Telejectors! We simply have a series of small Telejectors that will continuously show exactly what is on the other side. And, with the lenticular system—oh, and both in vertical as well as the horizontal orientations to account for all types of motion—feeding them, at least eighty percent of the ship will be handled. Perhaps a bit more.”

“Okay, and I must tell you that as soon as you went into contemplation mode the same thoughts hit me about using the Telejectors, but what about things like the helicopter deck? And, the forward deck in front of the bridge area?”

Tom shook his head. “I’m not entirely certain, but at least we might come up with some way to create a roll up and roll out system. Sort of like a blanket on a spool. It ought to work well for the helicopter deck. That is nearly always going to be a rectangle. It’s the uneven triangular shape of the front end that could be a problem.”

“At the very least the crew could be trained to avoid permanently-mounted projectors up there. But, first things first. You need to mock up a system and give it a good test. Hopefully something a bit better than your peek-a-boo panel.”

Tom agreed. He left the office minutes later and headed for his underground lab and office. It was much quieter down there and he always felt he did some of his best thinking sitting just yards away from his *Sky Queen*.

For more than an hour he refamiliarized himself with his invention. It had come about several years before and in the interim some of the finer details had passed from his memory. It became clear that the ability to project a crystal clear image at distances ranging from a few feet out to nearly a mile would overcome one other detail.

How could crew members do any work outside of the confines of the ship’s outer walls without ruining the effect?

With what he believed would be the ability to project the necessary images at a distance of perhaps five or ten yards out, that left plenty of room for workers. And, with careful placement of the emitters and cameras nobody might suddenly walk right into view and have their image broadcast as something floating out over the water!

Tom also began getting the feeling that his current equipment wasn't going to be the answer. For one, the smallest projector, even the third generation ones, were still larger than a shoebox. He couldn't imagine mounting the hundred or so of them all over the ship.

What he needed was a new, small and purpose-built version. And, he knew that the best person to help miniaturize his Telejectors would be Linda Ming.

Linda had been an Enterprises employee years before and had left to pursue another career path. But, little more than twenty-three months earlier she had asked if she might come back. At the time it was a perfect match for one of Tom's projects. Since that time she had been involved in a couple more of his adventures and was always working to reduce the size and energy consumption of various electronic devices used at and made by Enterprises.

When she had come back, her office had been set up next to Arvid Hanson's in the Modeling Shop. Arv was the best model maker around and created nearly all the scale and static models of Tom's and Damon's inventions. A great number of these adorned the shelves around the perimeter of the large, shared office. Their proximity had been a boon to that first project, and she had not moved since.

Tom walked into the shop. "Hey, Arv!" he called over to the man who was currently hunched over something that looked like a giant, fluid-filled cube.

"Hey, yourself, skipper," Arv called back as he turned around. "Just trying out this new type of three dimensional printer. Sort of a hybrid between the old fluid tanks style and the solid filament types. Come over and take a look."

Tom did and was surprised when Arv plunged a hand into what looked like simple water, but he came back out with a scoop of a nearly solid gel.

After dropping it back in, Arv explained. "It's full of a non-Newtonian suspension of crystal clear micro beads in an electrostatically charged glycerin base. The glycerin is used as a fluid heat sink as the micro beads are fused using a series of two-micron lasers." He pointed into the tank. "I was just getting ready



to do a test run. If you've got three minutes..."

"Sure, I can give you three, but what can you do in that short a period?" Tom replied.

Winking at his young boss, Arv said, "Watch." He reached over and tapped the ENTER key on a nearby computer keyboard. Almost instantly the entire tank began glowing a bright white. Tom could see nothing inside it, just the glow, for the first few seconds, but then he thought he could detect something glowing even brighter in the middle of the bottom of the tank.

Linda Ming wandered out of her office and over to the two men.

"Is Arv doing a magic trick, Tom?" she asked.

"Honestly, Linda, I've got zero idea what he is doing. I've only been told to hang on for another—" he glanced at the clock on the wall, "—sixty-eight seconds. I guess we'll see then."

At the end of the appointed time the glow ceased. Inside the tank sat absolutely nothing. Other than the mysterious goop, it appeared that not a thing had been accomplished other than to make things glow.

"Nice light show, Arv, but where's the payoff?" Tom asked.

"Need to give it another few seconds to cool before I reach in," the model maker said nodding to a readout that was swiftly dropping from **167°** through the middle **150°s** mark. Soon it leveled out at **85°** and Arv reached back in and all the way down to the bottom. He seemingly picked up nothing, bringing "it" back up toward the surface.

But, once his hand broke the surface they all could see the intricate sculpture he held. Arv let it drip off for about ten seconds and then took it completely out, setting in on a rack in front of the tank. As it continued dripping small amounts of fluid, Tom and Linda leaned forward for a better look.

"It's... well, it's exquisite!" she declared.

In front of them was a 12-inch crystal sculpture of a two-masted sailing ship. All of the rigging, some of it as fine as spider silk, could be seen along with about fifteen individual figures of men on the deck in various poses.

Arv explained that the micro crystal beads were a special polymer that hardened to nearly titanium strength once melted and fused with other beads. He bent his middle finger behind his thumb and gave some of the fine rigging a good thwack! Nothing broke.

"See. Very, very strong."

“Yes, it is. And,” Tom marveled, “very, very clear. Do these micro beads come in colors?”

Arv shook his head. “No, just clear. I got this to start cranking out some new light-enhancing bezels for the *Pigeon Commanders*. Your dad and Jake over at the Construction Company haven’t been fully satisfied with the clear polycarbonate ones.”

Tom had a huge smile on his face. Arv asked why.

“Oh, dear Mr. Hanson,” Tom said. “You can’t imagine how this all plays into the reason I am here to speak to Linda. Boy oh boy, do I think I’ve got a project for you and this little gem!”

He explained the basic need to create a system to capture real time video from one location and to use a new generation of 3D Telejector to show it in another. He couldn’t tell them about the Navy contract or the actual application.

“Lenticular? Like those little tilt pictures on birthday cards and ones with the girl who is fully clothed until—” Linda stopped seeing both of the men beginning to blush. “Hey. It’s okay for me to say it. Anyway, is that the sort of thing this lenticular lens stuff is about?”

“Same theory but in reverse. I plan to use it on the camera end only so that each lens picks up as much as possible and then the computer overlaps it to create the smooth and clear output.”

“Where do I come in if Arv has this lens thing handled?”

Tom explained. “We need to miniaturize the Telejector so that it is about the size of a... well, as small across as possible and hopefully less than an inch thick. If we can make these about three inches across I will be happy.”

“Okay. How are they powered? I’m really hoping you aren’t going to tell me I need to leave room for a battery inside!”

“No. These will be hooked to a power and signal grid. No need for wireless communications even. Everything from power to on and off commands to fine tuning of colors will happen via ultra-thin wires all hooked back to a central computer.”

Arv raised a hand. “How about fiber optics?”

“For?”

“Data, power, and whatever. There is a variant of this unit that can spin out nearly indestructible optic-grade fibers about the thickness of a fine human hair, and do it at a rate of about a foot a second. The company that makes this shows a home network situation where the fibers get stuck to a wall using a special glue. You can’t see them unless you’re about two feet away. Or, they also

show how using a slightly textured paint over them covers and protects.”

Tom looked questioningly at Linda. “Help or hinder?”

She pondered it a moment. “Possible help. There is an off-the-shelf optic receptor/emitter I know of that is really small. As long as the data doesn’t need a small computer to decipher it and I get all that interior space for the Telejector circuitry, it might just help quite a bit. Oh, and I also know of a micro receptor that turns high-intensity light into electricity. I’ll have to see if it can give this enough power, though. Of course, along with those lenticular things for the pick up side, I’m going to need a microfine output lens.” She turned to Arv.

“I can do those as well. In fact, and I’m not certain this is any help to Tom, but I can do them both on the same piece so you could do a pick-up and broadcast all in the same small package.”

Tom looked decidedly uncomfortable.

“Listen you two, and this goes no farther than two feet from where you stand, but that is exactly what I need. I was going to suggest two small objects that can be mounted side-by-side, but if I can get this all in one package, that’s all the better. I can’t tell you why right now, but suffice it to say this is really important.”

He looked at them both and they looked him straight in the eye as they swore it would go no farther.

They went into Linda’s office, closed the door, and spent the remainder of the day discussing and diagramming some of the many possibilities for the circuit refinements. Even though he had never trained as an electronics man, Arv had picked up much practical knowledge over the years allowing him to make the best use of the smallest and most appropriate miniature circuits and mechanisms as possible in his models. He was able to point out several things neither Tom nor Linda had apparently thought about.

By quitting time all three were satisfied and Linda and Arv now excited about what they might do together.

“Tomorrow,” Linda promised, “I will begin the computer design of the main circuit board. That is, if you and Arv can come up with the dimensions for my lens. As I told you it will need to have the double focal ring of the original, it’s just that you can assume a finite and specific length for that.”

Tom walked back to his car feeling lighter on his feet than in the past few weeks.

At home he picked his wife up, swung her around in a circle,

and then offered to take her out to dinner.

“No. I have become hopelessly hooked on that new police crime drama, and tonight is when it is on,” she told him. “Besides, I had planned on climbing into my pajamas, eating macaroni and cheese in front of the TV, and then going to bed early. I have, as I also told you the other day, an early meeting tomorrow. But,” she said, brightening as she thought of something, “you could fix dinner for us both.” She looked at him expectantly, as big smile on her face.

“As the saying goes, ‘your wish is my command,’ ” he told her.

Dinner was the aforementioned mac and cheese along with some canned chili that Tom added some diced onions and a hint of mustard to. It was something he had learned from Chow years earlier when they were in Africa looking into the Caves of Nuclear Fire.

The next morning Tom called Trent to tell him he would be going straight to his underground office. “If dad needs me, that’s fine. Ditto if it’s Arv Hanson, Linda Ming or Harlan Ames. Otherwise, I’d prefer that you screen everyone else. Use your discretion. Thanks!”

“Before I let you go, it is unlikely your father will call. He is going into a video conference with a Congressional subcommittee in five minutes. It is supposed to last until after two.”

“In that case, if something important comes up I’m sure he’d want me to take it.”

After hanging up he turned on his computer and called up several files. For an hour he looked up one detail after another, taking notes and making copies of several research files.

During this time he pulled up specs for a tiny electrical generator that used motion to create power. Like the miniature one he used in the TeleVoc pins, any motion would cause a wheel to spin generating power. The problem was that it would only produce a quarter volt and at relatively low amperage. Hopefully, Linda’s solution might turn out to be better.

He also made a couple phone calls to speak with a few department heads. Everything had to be kept in generic terms, but this was normal at Enterprises and so nobody thought anything of Tom’s hesitancy to reveal specifics.

*I really wish the Navy’s contract would come through on this,* Tom thought. He would have to remember to give Admiral Hopkins a call to inquire about that as well as to inform the man that progress was being made. But, what *was* that progress?

A notion that something might or might not be a possibility?

Details on a new machine that could make clear things?

Tom had to chuckle a little as he thought how such non-information might be received.

“Well,” he said out loud, “I can at least give him news that the contract for those drones came in and that we are working on the body shell design. And, I ought to press on this invisibility contract as well.”

He was interrupted when his phone rang. It startled him and took him a couple rings to get the receiver picked up.

“Tom here.”

“Tom? It’s Trent. There’s been an accident at the car plant. Your sister had been in a bad accident. I don’t know whether to interrupt your father, but I think you need to get over there as quickly as possible. *Before it’s too late!*”



## CHAPTER 8 /

### A TESTING METHOD IS IDENTIFIED

TOM PAUSED a split second. “You get to dad via TeleVoc. I know you hate that thing but he needs to hear about the accident without you making a big intrusion. Let him decide what to do. Just tell him I’m on my way there and will also call him the very second I have any idea what is going on.”

Trent gave him no argument and Tom cut the connection as he raced across the hangar floor. Once at ground level he ran as fast as he could to his car, jumped in and raced off and around the complex.

The tunnel to the car factory flashed past him almost unnoticed. He was on his TeleVoc to Bud trying to explain that nobody knew what was going on and that blind panic wasn’t going to help anything.

As he raced back up to ground level he slowed down. One of the security guards was waving his arms to get the inventor’s attention.

“She’s outside the gate,” he yelled to the inventor and Tom rolled down his window. “Turn left and about three miles from here. A crew is on site but the car is buried in the dirt out there. Go!”

Tom was already screeching away as the man spoke the final words. His tires squealed as he took the corner outside the gate at top speed. He managed to hit ninety-two before he spotted a cluster of three vehicles about two hundred feet out in the dirt and scrub grass some quarter mile ahead. He slowed down and turned the wheels to take him as close as possible over the rough terrain.

He jumped from his car and ran to the group of people furiously working to reveal the rest of the car that was nearly seventy percent buried in the soft dirt. Tom looked around and could see a mound that she must have hit at very high speed sending the car into the air where it hit, nose first.

When the entire back hatch had been uncovered Tom ordered the men aside. He pulled his LED flashlight from his pocket and jumped onto the back of the car, shining the light inside. What he saw gave him hope *and* sent a chill of fear down his spine at the same time.

Sandy hung limply from her harness, the airbags having all deflated by this time. And, while she showed no signs of

movement, there were also no signs of blood to be seen.

Tom was thankful that the first three test cars—and this was one of them, had not been outfitted with locks. He pushed the button under the license plate overhang and felt the latch pop open. With one other man helping he raised the hatch before he climbed inside and lowered himself to a position behind the passenger seat.

With rising fear Tom reached gently over to touch the neck of his sister.

There was no movement as his fingers sought to find a pulse.

But, there was one. And, it was strong.

“If that’s you, Mother, tell Daddy I’m sorry about his car. Some mean old drunk man ran me off the road,” Sandy muttered.

Tom let out a relieved laugh.

“Sandy? Can you hear me?”

“Bud? Z’at you? I’m really tired right now. Can you wait until tomorrow?”

“Sandy. It’s your brother Tom. Can you understand me?”

Sandy didn't say anything for a moment and he thought she might have passed out, but she carefully said, “Tom, as in Tom Swift? And that makes me Sandy Swift? Wait! No. Sandy Barclay hyphen Swift. And that means I’m not at home in bed, am I?”

She moaned as she began to move.

“Stay really still, Sandy,” he ordered. “You’ve been in an accident and practically buried the car into the ground. You could have all sorts of injuries.” He paused as a siren could now be heard in the distance. “Good. The EMTs and probably Doc Simpson are coming. Just keep still. Okay?”

“Okay. But somebody’s gotta tell Bud I can’t go out dancing this weekend. Mother is gonna ground me for doing this!” She let out a sigh and soon was snoring lightly.

Tom heard the ambulance siren turn off and soon the sound of its tires could be heard crunching over the rocks. But, he also heard a soft whirring noise. Shortly after it started some dust was stirred up outside.

As he backed out to make room for the medical team he was just in time to see Bud jumping from one of the oddest helicopters ever. It was known as the Wasp and rather than individual rotors, it featured a special disc on top that rotated and provided the lift. It also had no tail.

The flyer was running to the car but Tom intercepted him.



“But, I gotta get to Sandy!” Bud wailed.

“No, Bud. Doc and his people have to get to her. You would be in the way. She’s alive and about as lucid as you might expect. She remembers who she is, she remembers you, and she knew who I am. You and I aren’t doctors but my guess is she’ll be fine. A little banged up and sore for a few weeks, but fine.”

They moved to one side so a special cable could be brought over from a winch on the back of the ambulance. One man had climbed inside the car and managed to unbolt the driver’s seat. Since the entire harness was part of the seat, they simply kept Sandy strapped in while the winch slowly began to drag her, seat and all, up and out of the back of the coupe.

Three minutes later she was out and the seat was propped up at about a thirty degree angle. Doc was squatting next to her obscuring the view from Tom and Bud’s position.

The inventor had to support his friend when Sandy moved her left arm. Tom smiled seeing she was making a thumbs-up sign.

Five minutes later as Sandy was being transferred to a gurney and taken to the ambulance, Doc wandered over.

“Four things. First, she is in great shape given that she says she went flying at about a hundred miles per hour and nosed into the dirt. By the way, it was a combination of that great car and the incredibly soft dirt that saved her from real injuries.

“Secondly, she is absolutely terrified of talking to either of you for fear you are going to tell her she can’t go back to testing the cars after this. I told her that was so much hogwash, but she needs to be reassured. And, soon.

“Thirdly, from the wallop she took by the airbag coming back and her face going forward, she’s getting an all-over bruise that will include a pair of black eyes. According to her she is going to use those to blackmail you into treating her like a princess or she’ll tell everyone you punched her, Bud.”

Doc smiled at Bud who rolled his eyes. “She’s always saying things like that. Now, I know she’s okay. But, what’s the fourth thing?”

“She said something about being run off the road. Does that make any sense to you, or is it just a byproduct of the roughing up she got and remembering your little *accident*, Bud?”

Tom looked at Bud. Bud’s previous accident had been no accident. The man who had rear-ended him had pled not guilty, been released on bail and promptly disappeared. The flyer had never mentioned it to his wife. Now, this.

“Thanks, Doc. Once she’s settled at the Dispensary Bud and I will go see her.”

“Uhh-uhh. We’re taking her straight to Shopton General. She needs an MRI of her head and probably her abdomen. I can’t tell if there’s any internal injury until we see those. So, you two pack up and get over there in about two hours. She will be in various rooms within the bowels of the hospital until then.”

“And I need to call Dad to tell him. Trent was notifying him.”

“Yeah. Can you image it? Trent actually TeleVoc’d me. He never TeleVoc’s anyone. How weird is that?” Bud asked.

Tom pushed the small pin under his collar. It gave a small pip noise saying that it was within range and could connect his call. “Damon Swift,” he silently intoned. Three seconds later his father’s voice came into his head.

“Give me thirty seconds, son.”

Tom waited. Nearly a minute went past before Damon came back. “Sorry for the delay. I had to answer a stupid question. We’re taking a break. How is Sandy?”

“She’s going to be fine from first reports. Doc is just pulling out of here heading to Shopton General with her. I’ve got Bud with me and we’re heading there in about two hours. Won’t know anything more until then.”

“What happened?” The reproduced voice in his head sounded tense and angry.

“All we know is she was driving down the road outside the gates by about three miles at high speed when the car went off the road, hit a berm of dirt and went airborne. She nosed into an area of really soft dirt and the car nearly disappeared. That’s all we know right now.”

There was a pause, then, “Okay. Keep me up to date, please. Oh, and don’t call your mother. Let me do that. Later. Once you find out more and get to see your sister. Take care of Bud. I have to go.”

Tom related the conversation to Bud who listened like someone with many other things on his mind.

When Tom finished, he merely asked, “Can I get a ride back with you. I’m not certain I can pilot that thing right now.”

Two hours later, and with the Wasp having been retrieved by Zimby Cox, Tom and Bud headed out the main gate at Enterprises and into town. Shopton General kept ample parking for family members of anyone admitted to the Emergency Department and they took a spot almost next to the doors.

Inside, a nurse directed them to the third cubicle where Sandy

had just been wheeled back to from her latest scanning.

“Do you find me repulsive,” she asked Bud in an Elephant Man impression.

“I find you to be most fair and beautiful, Sandy,” he replied even though her face was now quite puffy and discolored.

“Liar!” she softly chided him. “But, I love you. Come here.” She held her arms out, one of which had an IV line going into it.

Bud gently hugged and then kissed her.

“I thought we’d agreed that you only go flying in an actual aircraft,” he told her.

“Didn’t mean to. Oh, Tom. Come on over; this you need to hear.” Tom came to the other side of her bed. “Listen. I was traveling down the road at about a hundred when a car drove right into my lane from the opposite direction. I had to swerve to keep from having a head on, and I overcompensated after racing past them. My car went off road, hit a little hillock and up I went. It was all I could do to brace for the impact. Next thing I recall is being slapped all over the front of my entire body as hard as I could even imagine. Air bags?”

Tom nodded. “Did you get a good look at the car or the driver.

“Not much. All I got was the impression of a man in a baseball cap, grinning like he’d hit the lottery. Oh, and some sort of green tattoo on one of his arms. Not sure about that, but that’s the impression the split second gave me.

With a shudder, Bud leaned back down to hug Sandy. While he did this Tom took out his tablet computer from the bag he carried over his shoulder and called up a picture.

“Anything like this?” he asked showing her the enhanced shot of the driver who had hit Bud.

Sandy said a very impolite word.

“Who is he?” she demanded.

“That, sweetheart,” Bud told her, “is the nasty man who hit me the first time I took the first coupe out of the gates.” They looked at Tom only to find that he had pulled out his phone and was starting to talk.

“Harlan, Tom. That same creep who hit Bud seems to still be hanging around. He’s the one who caused Sandy’s accident.... Yes, she just saw the picture and identified him....” He listened for a minute. “Okay. I’ll tell her. Bye.”

He turned back to Sandy. “Harlan said the man skipped out on his trial and a warrant is out for him. We are going to insist the

Sheriff put at least one if not two cars in the vicinity of the auto plant. Also, he will notify the State Police to be on the lookout for the guy. They'll set up for facial recognition at all toll booths, bridges and other camera checkpoints."

Not wanting to tire his sister he suggested that he and Bud leave.

"No. You go and head off Mother. Tell her I can't see anyone today but she can come tomorrow morning. If she puts up a fuss tell her I'm going down to the morgue to be fitted for a toe tag. Anything! I need some time with Bud while he tells me why I never heard about his run in with that creep."

Tom laughed. "I'll try, but you know our mother. She might even call up that FBI friend of hers and force her way in. But I'll try."

"Oh, before you go and before I forget it, that little coupe has a tiny bit of oversteer going to the right. That's why I overcorrected. Otherwise I might have been able to recover and drive away from that freak."

On his way back to Enterprises Tom thought about the coupe. They were certainly learning a lot about how sound a vehicle it was, but at this rate someone might eventually run out of luck.

A thought came to him.

At first it seemed silly, but the more he pondered it the more it seemed to make some sort of sense. It had started as almost a throwaway comment to Admiral Hopkins and his aide, but it made sense. It would—and he hated the cliché analogy—*kill* two birds with one stone.

He was going to need some way to field test his invisibility system. There was only so much that might be learned from doing endless simulations in the computers. Even something in a controlled environment wasn't going to be capable of giving them real life data like having a test vehicle out on the road.

What better way to safeguard the car and driver than if it couldn't be seen?

When he got back to the office he made a call to Charlie Van deGroot at the car plant. The manager agreed that it would be entirely possible to build a one-off of the coupe with cutouts to flush mount the combination camera/emitter lenses.

Over the next two weeks a number of things occurred. To begin with, Admiral Hopkins hand delivered the contract for the top secret work to be accomplished toward the creation of a one ship test system of Tom's invisibility system

He was impressed when the inventor described the line of development he intended to take.

“Does this mean you are definitely going to meet the one-year mark?”

“Well, that assumes that the test vehicle I intend to make lives up to my hype, sir. If that works, then I am certain that a full-ship version would be just a few months behind.”

The second thing was that Tom spent quite a bit of time working closely with Linda Ming. Between them they were able to not only downsize the Telejector part of the system to something the size of a stack of about one hundred playing cards, they were able to increase the focus and stability of the picture.

The power situation had been solved when Hank brought them a laser-based generator chip. The fiber optic line would support a laser that not only sent data but could be used to create nearly nine volts of power for the mini-projector. It would only have a range of up to nine or ten feet, but it would be more than sufficient.

The next thing was that Tom had a sudden bad feeling about how the system would actually work. If the projected images hung in the air *in front* of the camera, wouldn't that image interfere with the clear picture being brought into the system?

When he brought this up with Linda Ming she laughed and patted him reassuringly on the shoulder.

“Tom. We will set the image focus to start *outside* of the projected image and from that out to infinity. There might be a tiny bit of image intrusion, but we can accommodate and filter that in the processing computer. It'll be okay.”

He felt a lot better after that.

Number three on the list was that Sandy got out of the hospital and was able to recall everything that had happened. She gave her statement to Harlan Ames as well as the State Police and again to the FBI. Based on her specific information a nationwide call went out for the capture of the man in the pictures.

Fourth was the most unimportant in the overall scheme of things. Swift Enterprises was officially announced as the primary supplier to the United States Navy for target and tracking drones. The contract price was similar to that of the previous company at a per unit price of two point two million dollars.

Enterprises immediately—and as a public relations coup—announced their pleasure to accept the contract but at a reduced price of only one point six million dollars apiece. They further announced, with the permission of the Admiral, that Swift TT-1

(Target & Tracking) Drones would be built to withstand most hits by current naval weaponry and could be relied on to be capable of reuse, thus saving taxpayers potentially tens of millions of dollars per unit.

What was not announced was that this was done to avoid future incidents where shot down drones might be recovered and used as with the two that had been sent to Enterprises.

Finally, the day came when Linda and Arv invited Tom to their workshop. He arrived only to find the room empty. But, when he called out to them Linda's voice came from immediately to his right while Arv's came in from his left. Both sounded as if they were just a few yards away. Then, as he carefully listened, he heard their footsteps as they crossed paths finally both saying, "Hello, Tom," from the opposite locations than before.

Tom applauded. "Bravo! Absolutely bravo. So, it is working? Let me see you."

There was a *click* and suddenly Tom found he was facing a sheet of Plexiglas that featured six disc-shaped lenses across the top. Visible behind the two-part lenses were small boxes that looked to be about four inches wide and three inches high.

Behind the screen was just the rest of the work shop. He was mildly amazed to see both Arv and Linda were standing in front of the screen.

They all laughed as Tom wandered around the screen to make certain there was nothing hidden. All he found was a small computer sitting on the floor by the lower-right corner. From it were four nearly invisible threads he recognized as being the micro-crystal optical lines.

"You've outdone yourselves," he complimented them. "I will only be able to tell you what this all is to be used for in about five weeks. At that point, and after our customer has seen this progress as applied to the next stage, then a select few will be brought into the need to know circle. Until then, you have my thanks. And, a request for twelve of those box and lens devices along with at least ten feet of optical cable for each."

"It'll be nice when we can know what this is about, skipper," Arv said, "but until then we're tickled pink that it came out as well as it did."

"It was your inspiration to use those lenticular lenses and to update the 3D Telejectors, Tom," Linda added.

Tom laughed. "No, it was just me being smart enough to let you two go at this without too much interference from me. Now, just wish me luck with stage two!"

## CHAPTER 9 /

### THE COUPE VANISHES

THE NEXT Monday, Tom took a call from Harlan Ames.

“Tom? I just got off the phone with the Chief Agent for International Terrorism at the FBI.

“That sounds kind of ominous,” the inventor stated.

“Ominous isn’t the half of it. For starters that man who hit Bud and ran Sandy off the road? He is an Iranian terrorist known as Abdul Ben Tsadik, or Abdul the Righteous. He was born in Lebanon of an Arabic father and Turkish mother, raised in France and educated in England. They consider him to be clinically insane and thought he had been killed several years ago in Uzbekistan during an anti-Russian protest. Guess they were wrong.”

“Do they know why he is targeting us?”

“No. Not really. Except he has made several public statements in the past proclaiming that all Western technology is being built with the express purpose of subjugating the Muslim world. However, Enterprises and the car company may not be his actual target. The FBI thinks they are looking to steal some technology for themselves. Something they might use for attacking Western targets.”

“What could we possibly have that they would want?”

“Think about it, Tom. What very secret project are you working on right now? Can you imagine what terrorists could do with that technology? It gives me the shudders thinking about it.”

This caused Tom to also shudder. It was absolutely true. If terrorists could make themselves invisible, he dared not think what they might accomplish!

“I see your point, Harlan. Like flashing neon right in front of my eyes with bass drums banging in each ear.” After agreeing to increased security measures, the inventor hung up.

He was still looking at the phone when Bud walked in.

“You’ve got that far away look in your eyes, skipper. Can you come back and talk to me?”

Tom gave his head a small shake and refocused his vision. Looking up at the dark haired flyer he nodded. “Right. Just off thinking about how bad it could be if our new coupe or the basic technology were to fall into the wrong hands.”

They discussed Harlan's recent call. Bud shook his head. "I feel very uncomfortable about all this, Tom. With a known baddie out there clobbering people driving the test car, I hate to imagine what they might do if they found out what we have coming in that special coupe they're putting together."

"You and me, Bud. You and me!"

Over at the MotorCar Company, the very special version of the Swift 100 coupe was taking shape. Partitions had been set up in some of the open space—where a future production line would sit—and a small team of the most trusted Enterprises and Construction Company employees could be seen constantly moving full crates into and empty ones out.

Hank Sterling had charge of this area where the nine men and three women were hand crafting a new vehicle. Only they, Tom and his father knew what the eventual car would look like. Not even the somewhat beefy men who had arrived on day one from Washington, D.C. had any idea.

There were ten of these men. Tom believed they must be FBI or even Secret Service, but nobody was saying much. Only Damon Swift had been given that information. The men worked in two-man four-hour shifts keeping in constant motion around the thirty-by-fifty-foot enclosure.

During a couple inspection visits Tom had spotted the minute ear buds they wore keeping them in constant contact.

"You should allow us to outfit you with our TeleVoc pins," he had offered the man whom had been identified as the supervisor. He explained what the pins could do.

"Sorry, Mr. Swift, sir," the man told him. He tapped his ear. "Known technology here, not so much with your devices. Thanks, but sorry."

Tom shrugged at the refusal of his offer but understood that protocols were being followed by this team of guards.

He also began to offer to have Chow bring over the occasional meal for them, or at least to take food to their large bus parked next to the building.

Again, a polite "sorry" was offered along with the explanation that they had to eat their "safe" foodstuffs.

That had been a few weeks earlier. Today, Tom keyed himself into the enclosure and stood with his back against the wall. The chassis was complete and both the Y-4 engine and the Automatic Velocity Transmission were firmly mounted to it. He chuckled as he realized you could put the steering wheel and shaft on, bolt a



seat to the frame, and it would be perfectly drivable.

For this test car, as much room as possible had to be found in the back sixty-percent of the interior so the fuel tank was to be mounted under the passenger seat. It would only contain enough fuel for about one hundred and thirty miles of travel; basically it held under two gallons.

When Bud, now fully “in the loop” on the purpose of both the car and Tom’s invisibility system, had seen it his right eyebrow had risen a full inch.

“Why so little?” he asked.

“Think about it, flyboy. We’re never going to take this out on the open road for a lengthy trip. Nearly all the testing will be done inside Enterprises’ walls and probably never for more than two hours at a time. We don’t need additional fuel and I don’t want to have to figure out where to put a larger tank!”

That tank was only about two inches tall and about eighteen inches square. It currently sat to one side on a table waiting for the time to temporarily install it for the engine tests.

That was why Tom had come over today.

Hank turned and saw his young boss and smiled, giving the inventor a “just a minute” sign.

When he approached, Tom reached out and shook his hand. “It’s starting to come together, Hank. Did I time things right for the engine tests?”

“You did. Ginnie is about to grab the tank and get it hooked up. By the way, I like the idea of having no fuel pump. Using metered nitrogen keeps the fuel pressure steady as a rock, even when we tested it on the shaker platform. I know we’re using changeable cylinders for this car, but I hear from Charlie V that the production cars use traditional pumps. Why?”

“Oh, that’s easy, Hank. It all comes down to availability for the common customer. Having to change a tank, or go someplace special to recharge it every thousand miles or so would be too much of a bother.”

A rather squat woman with jet black hair walked over to them.

“Can I hook the tank up?” she asked.

“Unless Hank thinks there’s something else to do, I’d love to get this test going.”

She nodded, turned from them and went to pick up the tank. Two minutes later she gave them a thumbs-up sign and walked

over to a set of monitors against the far wall. Turning her head to talk over her shoulder, she told them, "We're ready. Give the word."

"Consider the word given, Ginnie," Tom replied.

She gave a brief countdown from three, pressed a button and the little engine came to life.

Two other technicians pushed a portable lift device under the front axle to raise the drive wheels off the ground, and the transmission was remotely put into gear.

For the next five minutes the engine and wheels both spun at various speeds. In addition, the linkage to the steering mechanism was given a test showing everyone that the wheels spun perfectly no matter where the wheels were pointed.

Finally, the test was over, and an overhead fan could be heard sucking the exhaust out of the area.

"I'd say that was a perfect test," Tom said to Hank. "I guess it's put the body together from this point."

He excused himself and left both the enclosed space and the building, climbing into his car and disappearing down into the connecting tunnel a minute later.

As he approached the far side of the collection of buildings in the center of Enterprises a thought occurred, and he made a slight detour parking two lots away from the Administration building.

Walking into a workshop he called out, "Hey, Arv!"

The model maker turned and came over. "Hey right back at you, skipper. What's up?"

"Well, if Linda is around I wanted to talk to you both about the invisibility system." Tom expected Arv to call out but noticed the man was looking over his shoulder. "Is she standing behind me?"

Arv nodded. "She's a sneaky little thing, Tom."

"Hello, Linda," Tom said to the woman behind him. "I just was over at the car company watching the engine test. We're right on schedule with the main build, so I thought it best to see where you two are in all this?"

Arv raised a hand and spoke. "We are ahead of schedule, Tom. Linda has all twelve of the camera and Telejector combos built and tested. I ran the combi lenses a couple weeks ago and we assembled things yesterday. All we need is the computer."

Tom blushed. "And, I'm about three days behind schedule on that, I'm afraid. I had to wait for a pair of upgraded processor

chips. Unfortunately, the ones we were using can't keep up with processing more than ten of the... hey! What are we going to call these things?"

Arv rolled his eyes. "Your friend, Bud Barclay came over the other day and told us he thinks the name ought to be Impercepti-Shield. Either that or... what was the other one, Linda?"

"Obscu-jector. Hyphenated and with a lower case j."

"I see," Tom said giving a small shake of his head. "While I understand the second one, well, and the first one too, I can't believe Bud didn't come up with something with more pun power."

"He did. NoSeeMeVeil."

Tom groaned. "If any of those, I'd say ObscuJector—all run together with an upper case J—is a candidate. Or, what I think is going to sit best with the Navy. TruStealth." He spelled it for them.

The other two thought this over and both nodded their approval.

"In any case, Linda and I will be taking the TruStealth boxes over to the MotorCar Company this afternoon to do the preliminary install in the various panels. We have to do that now because a couple of the placements will end up blocked from the inside once things get assembled. I guess the computer can wait for at least the final week. Nothing is supposed to be finished for seven more days," Arv mentioned.

Before he left the workshop, Tom asked to see a finished unit. Holding it in his right hand he saw that the lens system only added a third of an inch to the overall thickness. It weighed only about six ounces in total and featured an odd-looking wire mount on one side. When he asked, Linda explained:

"That is a gel-filled, watertight outer seal for the optical fiber. Push the fiber in using a positioning sleeve and then a small hex wrench is inserted into that recess next to it. One full turn squeezes the gel pack and floods around the fiber both sealing it from moisture as well as locking it into place."

"What if it needs to be removed?"

"Undo the hex screw and slide the fiber back out. You'd have to open the box and replace the gel pack to reuse, but it's fairly simple."

Tom smiled and congratulated them on their hard work.

"Barely raised a sweat on this, skipper," Arv admitted. "Once you figured out the Telejector and lens stuff, it fell right into place. Just about the easiest project we've had in a few years!"

That was one of the things that bothered the inventor. It had been almost too easy, coming together in weeks and nearly perfect the first time through. It all made him uneasy. Something bad was bound to happen. It was only a matter of figuring out what that might be.

He left to go to the shared office. There he gave his father a rundown on what had happened today and how the holdup appeared to be himself.

“I wouldn’t worry, son. I spoke with the Admiral this morning and he was asking if we might be able to show him where we stand in three weeks.”

“What did you tell him?”

“I said that you were assembling a test bed under the watchful eye of those agents from D.C. He was a little surprised that the FBI had sent people here so soon, but I could practically hear him shrug. He even said, ‘Nobody tells me about these things.’ I suppose you should call him in the next day or so to give him a timeline for a demonstration.”

Tom agreed.

The following morning’s mail brought his new microprocessor chips a full day early. He slotted them into his test equipment and ran some analysis programs. Both turned out to be functioning at one hundred-percent, so he installed them into the computer that would go into the coupe.

He set things up to run simulations over the following twenty-four hours and then wandered down the hall to the small kitchen Chow kept in the building.

“Wahl, hey there, youngin’,” the western cook hailed him. “Whatcha think o’ my latest shirt?”

Chow Winkler was known to have both a love of wild and brightly colored western shirts as well as a closet that would be the envy of most women.

His new wife, Wanda, had attempted to get him into some more subdued outfits, but Chow sulked for a week before she gave in, good-naturedly, and told him to wear whatever pleased him.

Today’s shirt was an extremely bright yellow color featuring an iridescent green cactus with a bright blue steer peeking out from behind it.

“Nobody will ever say you can’t be seen from outer space, Chow!” he told the older man. “I came down here to tell you I’m heading home just after one, so I’ll grab a bite to eat there.”

“Okay. Have a good one!”

Tom went home and did something he rarely did. He took a nap.

By the following week the car had been completed and the TruStealth tested—secretly—by Tom. He was very satisfied with the results. Now, as he walked around it, running his hand over its sleek surface, he pondered its possibilities.

Because the car—what Bud had dubbed *InvisiCoupe*—needed to perform a number of self-tests and retain terabytes of data for later study, the entire body and interior had been drastically changed. Gone were the 360-degree windows. Gone was the more gently sloped rear hatch. In fact, anyone not knowing about it would believe it was not remotely related to the Swift-100.

Inside, along with the five support computers and two hundred and fifty terabytes of solid state data storage, a small bank of Swift Solar Batteries (Mk VII models using a nearly pure lithium gel as the electrolyte) to run things once the car was turned on, the driver’s station looked incredibly like that of an advanced aircraft cockpit.

Because the side windows in the back, and nearly half of the front side windows as well, were now solid panels, a trio of high-definition cameras fed into a wraparound dash panel giving the driver the same views as before.

Tom or Bud—the only two people Admiral Hopkins had okayed to take the car out on test runs—needed only to turn their eyes to either side or look in the rearview monitor to see exactly what was around them outside.

It did take a slight amount of getting used to, but after a few minutes it seemed fairly natural. After all, it was nearly identical to flight and other vehicle trainers, and both of them had many hours in such environments.

Outside, and hiding under ultra-thin red filters, sat the one-dozen camera/emitter lenses. It had been discovered that the slight tint from the filters could be overcome with color correction done in real time in the computers.

These filters—stretched tight so they appeared to be part of the body itself—hid the lenses to all but close view, something Tom had no intention of allowing to happen.

This was not a car that would be taking many passengers. With the entire rear cargo area and most of the back seat room taken up, at best three grown men could sit and ride in it now. Or, as Bud suggested:

“Slightly less than half a load of clowns from one of those little circus cars!”

Tom’s intention was to drive the car through the tunnel to Enterprises in the middle of the night, take it to the largest hangar on the premises—that had been cleared out the day before—and to do the testing inside with the doors closed.

There would only be brief “outside” tests later on and those would be performed in tandem with at least two other cars. One would carry the Security detail and the other the test and camera equipment.

To ensure that the first, indoor tests would take into account a variety of patterns, shapes and even moving objects, most of the inner wall area of the hangar had been covered with giant posters and monitor screens. To watch how the invisibility system reacted, and to measure accuracy, a special camera robot was set up on an oval track where it would travel along in concert with the car, speeding up and slowing down based on a small signal antenna sending it telemetry data from the car. A second, overhead camera would record that view.

Tom drove over to the car factory before heading home for a few hours. He parked outside of the final assembly building and keyed himself in through one of the side doors. Nearby, once he got inside, was a partitioned area the completed car had been moved to. A six-sided box made from Durastress sheets heat welded together except for one end and that was locked by a series of four cypher locks, each with a different code.

It seemed to be security overkill but it was one of the demands for security stipulated in the contract.

Tom walked all around the perimeter before moving to a small monitor station that normally displayed a series of videos from the central third of the assembly line. It was to be used by the shift supervisor whenever cars were being built. Tonight it sat unattended.

He tapped in a personal code, selected the rather innocuous **STATION 7** from the onscreen list, and was provided a live shot from the camera inside the box.

He smiled on seeing the gleaming red coupe sitting there. Just above the roof line he could read the digital clock providing proof that what was being shown was happening at that exact moment and was not a recording. That clock was a fully self-contained atomic clock. It could not be reset or interfered with from any outside source.

Checking his watch against the atomic clock he had to laugh.

His expensive watch was a full eleven seconds slow.

He shut the station down, nodded to one of Harlan's men who finally let himself be seen on an overhead catwalk, let himself back out and drove out the gate and went home.

He and Bashalli had a nice dinner. She inquired what might be taking him back to work later, and he politely smiled and shook his head.

"So, Thomas Swift, is this your super, top secret project or have you found a younger woman and are just not ready to tell your wife?"

He rose and came over to her, taking her face in his hands. He kissed her and smiled. "The former, I'm afraid. Never the latter, and thank heavens for that! I had enough trouble getting up the nerve to marry you and I'm not about to mess *that* up. Believe me!"

"I do," she said. "I did then, I do now, and I will forever."

When ten o'clock came, Tom kissed her again and left to go to the MotorCar Company.

Inside the assembly hall a team of nine people—five Enterprises employees and four of the Government men—had just opened the box and rolled the coupe out. One of the strangers held a thin fabric sheet folded in his hands. As Tom watched, the team took the sheet, unfolded it and draped it over the entire car.

"You'll be able to see out, but nobody can see in," a very large, well-muscled man in gray told him as they lifted it away so Tom could have access. "I'm Sander Evans, Mr. Swift. I figure we've been here long enough you ought to know my name. We can't be too careful."

Tom nodded, patted the man on the forearm, noting that it was as solid as an iron bar, and opened the door to the car. He sat down and closed the door.

"I can do you one better," he stated in a voice only he could hear.

Tom started the engine. After a moment he flipped five switches that activated the various computers and power systems inside. One by one he watched as green indicator bars filled the top quarter-inch of the screen in front of him.

He pressed a button on the center console and his window rolled down half way.

"Okay. I've got a full set of good, green lights in here. Give me twenty seconds before you cover me up. Okay?"

Only Phil Radnor caught the mischievous gleam in the inventor's eyes. He nodded and grinned.

As the countdown got to about twelve, Tom leaned forward, pressed a small area on his touch screen dash, and the coupe vanished!

A cry went up from the Government agents as they heard the car race forward and out of the open door at the end of the building. By the time they got outside there was nothing to be seen.



## CHAPTER 10 /

### VERY BAD PEOPLE

HALF WAY through the tunnel Tom began to feel a little guilty. However, not so much that he stopped or went back. It was just that he felt it a stupid precaution to toss a tarp over something that could make itself invisible.

It wasn't the first time the car had been turned on and the system tested in near stationary conditions.

His TeleVoc pinged. "Phil Radnor," it announced. Tom touched his pin.

"Hey, Phil. Guess our visitors aren't ones to take a joke. Can you please tell them to come over to Hangar Two? I'll be inside trying to look ashamed for what I just did. Only, please tell them that if I had not seen the car disappearing in the monitor just above their heads I would not have left the building."

"They are all on phone calls to who knows who, skipper. Four very red faces and lots of angry and, frankly, impolite words are being spoken and yelled. But, I know what you were trying to prove. I'll get this smoothed over and we'll all see you in about five minutes. Bye."

Tom pulled the coupe around the end of the building complex and headed straight along one of the taxiways to Hangar Two. It was one of the largest at Enterprises and usually utilized to construct the giant inflatable habitats built by Enterprises and used—in part—at their Mars colony and at the MotorCar Company.

By the time the others arrived Tom was sitting on the hood with his arms held straight in front of him, wrists together as if he expected to have handcuffs slapped on at any moment.

"Ha-ha. Very funny, Mr. Swift," the large Government man, Evans, said as he unfolded himself from their car. "You shouldn't have done that, but Mr. Radnor here tells me it was part of the test. Well, we didn't see anything, so that's good."

Tom smiled and lowered his arms. "I'll assume that you mean you didn't see the car, and not that you are going to look the other way on this little incident."

"Heck! Both. Might not be if you had left by the front gate over there, but since you remained on Swift property the whole time we've been told to just get over it." He gave the inventor a slight grin to show that there were no ill feelings about it.

The inventor took everyone on a tour of the setup in the hangar. A “track” had been set out in blue tape all around the perimeter starting exactly fifteen feet from the wall. It was ten feet wide except in the four corners where it had been expanded to fifteen feet.

Directly over the track was a monorail camera system.

Twenty feet inside of the inner tape was the tubular track for the camera robot. It exactly matched the vehicle track leaving a clear space of about one hundred and eighty feet inside of the track area. A monitoring station sat in the middle where two people could watch all the telemetry as well as see what the camera robots were getting video of.

Kill switches for both the car as well as the robots could stop the testing at a moment’s notice.

“What’s that silver tape in the middle of the blue taped area?” another of the Government men asked.

“Because the driver could get pretty dizzy if we run around for more than a few laps at a time, we plan to only run with a live driver for the first six or seven laps. Then, after we check to see we’re getting good results, the car will set off but will be driving itself. That silver ribbon you see is the centering antenna. The car will never get farther than one inch off center from that special tape.”

The four men walked over to more closely examine the tape.

“Uhh, Mr. Swift? Why can’t you just sorta use the driving technology a group of other companies played around with a bunch of years ago?”

“Do you mean the self-driving cars? The ones that came and went in under three years? Well,” Tom stopped. He wanted to give them a good and honest answer and not just a flippant one. “Okay. You probably recall the problems they had. Cars with real drivers not playing well with the automated ones. And nobody was willing to mandate that it be one or the other.”

All four men nodded. “Sure.”

“Well, in order to make the cars autonomous the companies building them needed to add about a hundred pounds of cameras, infrared lasers, sonar transceivers, and computers. All of that ended up being put on top of the cars making them about eight inches taller. Nobody figured out how to get things down into the body because the systems relied on being able to see several vehicles ahead.

“Even with things on the roof it was still difficult to see around

pickups, delivery trucks, minivans, and buses. Again, nobody wanted to legislate to get a standard height of vehicle.

“To finally get to the answer to your question, we might do exactly what you’ve inquired about, except that this method is safer and costs pennies. We’ve outfitted the car with a sensor pack underneath that reads the position of that tape—which, by the way, has a small electrical current running through it—that checks how far it is from eight different sensors, at a rate of sixty times a second. Any minute movement off of dead center and the car makes a minuscule adjustment.”

He looked at the men. They were looking contemplative and nodding. Finally, the man who had asked the question said, “Right. Now I get it. No need to put a lot of junk on top when you can hide it all on the floor!”

Five minutes later Tom was ready to climb into the car.

“No heading outside. Okay?” the large man said. It wasn’t a request, and Tom knew it.

“Not to worry. With the hangar closed and locked from the inside it would be impossible for the car to get out. It just goes invisible, after all. It can’t pass through solid objects!”

As everyone except Tom watched the monitors, he took the coupe around the track a total of eight times. When he came to a halt and shut down the invisibility system everyone came crowding around the car.

“Couldn’t see a blessed thing!”

“Incredible!”

“If we hadn’t heard the engine noise we’d never have guessed you were even in the building!”

Tom was very happy, but he cautioned them, “Let’s wait until I can review the videos in the finest of detail. While a slightly sloppy invisibility will most likely work just fine for the end product, I want this to be as near perfect as possible.”

He set things up for the car to drive itself for another hour while the rest of the people in the hangar went over to a small room and got some coffee and sandwiches that Chow had the night crew in the cafeteria deliver an hour earlier. Evidently, if Tom’s people ate Chow’s food, the agents evidently felt they could eat it as well.

“I’ve set the computer inside to shut off the invisibility system every fifteen minutes so that you can be assured the car is still here,” he said with a sly grin. “It’ll run four sets of fifteen-minute

laps before coming to a stop and shutting off. After that you can put it into the storage box over at the far end and then lock things up.”

He was pointing to an identical box to the one at the MotorCar Company.

Tom started the car in motion and watched as it disappeared three seconds later. He wished them all a good night and let himself out a door set in the hangar end he originally drove through.

The next morning Bashalli made him remain in bed until eight. She brought him breakfast in bed.

In truth, Tom was very tired and put up no fuss about the extra time asleep, or the breakfast. She might have been brought up in Pakistan—and was a great cook of that cuisine—but her skills cooking “Americanized” dishes had been growing with leaps and bounds since their marriage.

“Great French toast,” he told her around a mouthful.

“It isn’t French Toast,” she replied. “It is a strata. A layered bread and custard dish with homemade caramel on the underside. And, it is baked.”

“Don’t really care, Bash. It’s too good to bicker about the name. Is there any more?” He held out his cleaned plate.

With a smile she took it from him and went back downstairs to the kitchen where she put an even larger serving on his plate before returning to the bedroom.

Later that day, and after Tom and a pair of technicians had carefully watched the video and checked all the various measurements, he had just one thing to say.

“I believe I need to up the luminosity on the Telejectors. We all saw how at a perfect ninety degree angle to the lens how you could see a small glow. Right?” The others nodded. It had been nearly too dim to see, but it was definitely there.

“Well, I’ll need to do the computations, but my belief is that by upping the Telejector output about five percent, the resulting apparent density of the image will cover that.”

He went to work on that a few minutes later beginning at one percent increase. It was a straightforward calculation, but with each percent of increase in the output, it added a small amount of extra detectable light from the Telejector. In the end, and just as Bud came into his underground office, Tom decided that an increase of six-point-two percent was the perfect balance. It

provided a rock-solid picture while disguising any telltale light at any angle.

“You’ve got that cat who not only ate the canary but has devised a clever way to ensure he will never be accused look on your face, skipper. Care to share?”

“I may have just squashed the final bug in the system, flyboy,” he told his friend. He gave Bud a brief explanation of the issue and the solution.

“Jetzt! That’s great, skipper. So,” and now Bud looked mischievously at Tom, “when do I get to drive around all invisible?”

“Day after tomorrow. At that time, I want to do a two-car test. One will be you and the other will be filled with cameras running at several wavelengths: normal light; infrared; ultraviolet. We need to make certain that a simple filter can’t defeat the TruStealth system.”

Looking a little disappointed, Bud asked, “So, you’re not going to use one of my names after all? I sort of thought that ObscuroShield or HideyLight or something might stick.”

Tom groaned. “I’m glad I didn’t hear those earlier,” he said. “The couple Arv told me were enough. But, seriously my dear friend and brother-in-law, because this is never going to be a public product, just the military, it absolutely has to have a serious name. Sorry,” he added seeing the disappointment in Bud’s face, “but this time it has to be this way.”

With a slow nod, Bud replied, “Okay. For now. But, the next time you invent something for the general population, don’t be surprised when I come up with a really great name!”

“I’d be disappointed otherwise, Bud.”

They talked about the coming test. Both cars would drive around the inner perimeter of Enterprises several times. The first time the camera car would run inside of the path of the stealth coupe. This would give them low and high speed checks on how the system handled a fairly mundane—the walls and hangars—background.

Run number two would reverse the positioning with Bud’s car driving inside the path of the camera car to see how a more distant—the buildings—image was utilized.

Circuits three and four would see the camera car in front of and then behind the test car.

Before departing, Bud slapped his friend on the shoulder.

“I’ll do you proud, Tom. We’ll put this thing to the absolute test.”

When the results came in most looked very good. The one that was a disappointment was the infrared camera. At first, when the coupe was cooler than the outside temperature, there was nothing to be seen. However, as the car heated up in the midday sunshine, the ghostly image of it could be detected.

Tom, on reviewing the results, sat back in deep thought. He was still thinking about the matter when his father knocked on the door of the underground office and lab.

“Can I have a quick word?” he asked as Tom looked up and smiled.

“Sure, Dad. Come on in. What about?”

The older inventor took a seat opposite Tom and leaned forward.

“I was just provided the results of today’s tests. You do know that Admiral Hopkins has demanded that we both be involved in every phase of this. Right?” When Tom nodded, he continued. “Fine. Did you spot the bug?”

Tom nodded, again. “If you’re talking about the heat signature problem, then yes.”

“Good.”

Tom’s eyebrows arched and he stared at his father in disbelief. “Good? What is good about it?”

Damon Swift leaned back in his chair and smiled.

“It is good because I know exactly what can be done to fix that. If you think about it, you do as well.”

They sat looking at each other for more than a minute before a smile broke out on Tom’s face.

“Are you thinking that a coating of liquid tomasite on the ship is the answer?” The liquid form of Damon Swift’s revolutionary material, tomasite—named not for his son but for his own grandfather, the first Tom Swift—provided all the advantages of traditional tomasite in a spray-on product.

Tomasite blocked radiation so it could be used in nuclear reactors—its first and primary use—could not be locked onto by any known weapon system, and was incredibly strong.

It was the radiation blocking aspect that Tom suddenly realized would be the answer.

“I am exactly thinking of liquid tomasite, Son. And, I believe the

Navy will be most pleased when it is explained to them that if applied over a fresh coat of paint, they may never need to chip off and repaint a ship again. Best of all, the hull will not absorb heat so it will not show up on infrared sensors!”

When they called Admiral Hopkins and told him about both the ongoing successes their testing was giving them, as well as the news that the liquid tomasite was going to enhance the system greatly, his only reaction was one of concern for the process.

“How much? By that I mean how much cost, of course, but also how much time out of service for any vessel being outfitted?”

“The good news, Admiral,” Tom told him, “is that the application of the liquid tomasite can be accomplished in about three days once a ship is masked off. We would do the spraying for you as it does require specialty equipment and skills, but it would be about another seven to ten days to install the system. So, under two weeks.”

“Of course, the ship would need to be freshly painted to give you absolute best results, or at least freshly scrubbed down,” Damon added.

“Hmmm? Well, that doesn’t sound too bad. What about the extra cost?”

Tom and Damon looked at each other. The contract from the Navy had been huge and they both knew there was a lot of “wiggle room” in the budget.

“All inclusive in the test phase costs, sir,” Tom replied after a second. Damon nodded.

The Admiral’s part of the call ended with the agreement that a very special vessel would be made available to be outfitted as the test ship. She would, the Navy man assured them, be given a fresh coat of Haze Gray, the official Navy hull color. “Will you hold so you can give Commander Roberts the latest schedule, Tom?”

Tom filled the other navy man in on their upcoming test intentions.

“That was easy,” Damon commented. “What is the next test phase, Tom?”

“Short of running the coupe in between the buildings where we have trees and shrubs and grass, I’d like to take it outside the walls so we can see how the system reacts to those sorts of things. Commander Roberts said he likes the idea. What do you think?”

Damon considered the question. He thought through some of the basic demands of the contract, those that called for the utmost

in testing security. While there was nothing specifically prohibiting the testing outside Enterprises' walls, he advised Tom that the Government agents assigned would need to be involved.

Indeed, when Sander Evans was called into the shared office that late afternoon and informed, he began by shaking his head.

"I'm not certain I can let you do that," he said. When Tom explained that they could not fully test inside the secure walls of the complex, Evans told them he would need to check with his superiors.

The official word came down two days later. The agent arrived at the shared office an hour later to explain.

"Okay. But here's the thing. You have two extra cars accompanying you. Our cars, by the way. Each car will have a pair of agents, fully armed and with orders to shoot to kill anyone or anything that looks like it is going to be a danger."

Tom and Damon looked greatly annoyed at the news.

"Everyone knows how you hate violence, but it is the only way you get permission. We'll have the Sheriff's Department close off all of the roads around Enterprises starting a couple hours before you go out the gate. Oh, and it needs to be Tom here. No other employee can be trusted. Sorry, again, but those are the conditions."

"We need to have our camera car out there or the test are meaningless. That's *our* condition," Damon told him.

Conditions on both sides were accepted and the test was scheduled for the next day, Friday.

At ten, Tom climbed behind the wheel of the coupe while Bud took the driver's position in the camera car. Together with the two black sedans and their FBI agents, the cars left the main gate and turned left, heading due west.

For the first two miles Bud moved all around Tom's car getting some very good video with various backgrounds. A moment later Tom's TeleVoc pinged.

"Bud Barclay," it announced.

"Yes, Bud?"

"Skipper? I've just had a complete video system lock up. The computer crashed. What should I do?"

"Go ahead and pull over and see if you can reboot. We're going to go on and will be back around in about twenty minutes. I'll notify the chase cars." He watched as Bud's car pulled over to the



side of the road.

They soon reached the sweeping corner at the end of the walls of Enterprises and everyone turned left.

Tom radioed the FBI cars and told them what was happening. The message back was, "Do not stop whatever you do!" It sounded both ominous as well as coming over in a satisfied-sounding voice.

The half way point along the West wall was approaching when Tom looked in his rearview monitor. The two chase cars had pulled up right next to his rear bumper.

With an alarming thud, first one and then the other bumped into the coupe. He was about to use his TeleVoc when he looked ahead and saw a large semi truck pull out from a side road. The back was opened and a ramp was quickly coming down to drag along the road.

Tom tried to stop but the black cars were herding him up to the ramp. With a final shove from directly behind, the coupe was shoved up the ramp and into the truck.

He slammed on the brakes and jumped from the car, only to be roughly grabbed by two large men and hustled to the back of the truck.

With a mighty shove they pushed the inventor down the ramp and onto the road.

The two black sedans and the truck roared off as Tom lost consciousness.



## CHAPTER 11 /

### A HUNTING WE MUST GO

TOM OPENED one eye and then he forced himself to open the other. His mouth was full of dirt and he could feel the small rocks that had embedded themselves in his arms and face.

He was on his back with the glaring sun overhead. That meant, if he was thinking straight, that he must have been laying there less than an hour. They had left Enterprises grounds just before eleven, and the attack had taken place about five minutes later.

*Oh, no! The coupe!* Tom's head wailed as he thought of the loss of the top secret devices inside.

He knew there was nothing he could do until he contacted Enterprise, so he carefully checked to see if his right arm was broken, then reached up and tapped his TeleVoc pin.

"Harlan Ames," he subvocalized. After two seconds he heard a *ping* in his head and Harlan's voice answered.

Tom quickly interrupted him, telling him in as few words as possible about the theft, and how it had been at the hands of their supposed FBI guards!

Harlan didn't waste time arguing how that might be impossible. He knew Tom and realized this had to be the case.

"Also, get to Doc Simpson. I'm in the middle of the road about half way along the west wall. I'm hurt."

In the distance Tom believed he could hear an approaching car. Turning his head he saw that a dark sedan was racing toward him.

Was this the men who had stolen the invisible coupe coming back to finish him off? He braced himself. But, within seconds the sedan decelerated and came to a halt twenty feet from him.

The largest of the Government men, Sander Evans, leapt out and raced to his side. He spoke into his cuff after giving Tom a quick check. "Code orange. West wall. Stat!"

Tom told him about the attack and theft.

Evans swore mightily. "I was afraid of that! Damn!" He spoke back into his cuff. "Code change. Red red red! I repeat. Red red red. Rogue agents have stolen the item. Get on the horn to D.C. pronto. Get me *known* replacements and put out an APB!"

Bud pulled to a halt a few seconds later and leapt from his car. He knelt next to Tom. "You okay, Tom?" he asked softly.

“Been a lot better, Bud,” Tom said through clenched teeth.

Standing, Bud declared, “I’m going after them!”

Agent Evans placed a meaty hand on the flyer’s shoulder. “No you are not! They are heavily armed and would think nothing of blasting you right off the road. The best thing for you to do is to get back to Enterprises and call Tom’s wife. Play it down, but say she should go to the hospital in a couple hours.”

A siren announced the approach of an ambulance. Moments later Doc was hovering over Tom checking him out.

“Well, nothing broken which surprises me given what you told me just now. Lie back and let me get a back board under you just in case. We’ll get you to Shopton General for a full body MRI before we let you move.”

“I’m coming with him,” Evans announced.

Doc looked at the man, looked at the relatively tight space in the back of the ambulance, and then back at Evans. “You’ll have to ride in front. No room in back and I take priority as his doctor.”

“Fair enough, but I need to question Tom ASAP. Hopefully he can give us more info on the theft.”

As the ambulance pulled away, Bud climbed into the chase car and headed for the gate.

On the way into town, Evans remained turned facing into the back of the ambulance talking to Tom.

The inventor was able to give him a description of their direction of travel, a small amount of detail on the back of the truck including a gash in the right side of the bumper he spotted around the lowered ramp, and a few small bits and pieces.

Evans spent some time on his cell phone speaking with someone in Washington who was displeased to the point where his yelling voice carried into the back of the vehicle.

The conversation continued while Tom was offloaded onto a hospital gurney and taken inside. An hour later he was moved to a private room where Doc insisted he spend the night.

Agent Evans was waiting in the room along with Tom’s father. Evans was on his cell phone as Tom was being moved into the bed.

When he got off Tom asked a question before the agent could say anything.

“How could they see me enough to force the coupe into that truck?” He was rewarded by having the agent’s face turn bright red.

“We placed a pair of tracking devices under the rear bumper so we could keep tabs on the car,” he admitted. “On one each corner. To be fair, it was the only way we could be assured we wouldn’t run into it.”

Tom, who was going to be extremely angry, suddenly found himself seeing the logic. But, he had to ask, “Whose idea was it?”

Agent Evans turned red, but this time with apparent anger. “It was Whitlow. One of the agents in those cars. I need to sit down. This is not going to make the Agency look very good.” He took a seat across from the Swifts.

“Okay. Whitlow, Greene, Zigmundy and Mencken, the four who went out with you, were last minute substitutions for men normally on my teams. They all came in from our Chicago office the day before we drove up here. I had a bad feeling about them from the start, but when I brought it up to my superior, he said just to live with it. They came highly recommended by their superiors.”

“What sort of bad feeling?” Damon inquired. He was obviously angry about Tom’s attack along with the loss of the coupe.

“Well, they kept pretty much to themselves. They also said they preferred to work in their own teams of two rather than mix with the rest of us. I gave in rather than to exert my authority on the matter.” He looked thoroughly miserable as he admitted, “This is my fault!”

Damon Swift was still exceptionally angry over the situation. “I’ll say it is! I’ve never seen a more unprofessional bunch of clowns coming from D.C. unless they were members of Congress. What are you going to do about this?”

“Every agency in this state as well as the surrounding ones is on alert. If they are on the move, someone will spot them, and when they do we’ll swoop in.”

Damon snorted. “I very much doubt you could swoop in, even in fighter jets! What if they just pull to the side of the road, abandon the truck and drive the invisible car away?”

Evans blanched. It was evident he hadn’t thought of the possibility. With a little panic rising in his voice, he asked Tom, “I don’t suppose you shut off the invisibility system? Maybe disabled it?”

Tom shook his head.

“I got out as soon as the car stopped and was grabbed and tossed out the back, like I told you on the ride in here. I didn’t even shut the engine off. No time.”

Evans sadly shook his head. “Well, I’m going to get a call any minute now telling me I’m recalled to D.C. After that I will be an ex-agent. I apologize for this. Don’t know what I can do to make it better, but I will take full responsibility. Enterprises will be off the hook on the loss.”

Damon now shook his head sadly. “Do you even know what is at stake here? Do you know who this system is for?” When the agent shook his head, he continued. “Well, because of security I can’t say anything here, but once you find out, and once your *superiors*—” he nearly spat that word out “—are made aware of the potential for death and destruction, more than heads will roll at the FBI!”

Damon and the agent left Tom a minute later.

The next day Tom was released from the hospital. Bashalli, who had visited him a little after his father left, was there to pick him up. He was about to ask if she had taken the day off when he realized it was now Saturday.

They drove home and spent the rest of the day just sitting and hugging on the living room sofa.

Tom spent such a miserable night—he was extremely stiff and sore from his tumble down the road—that Bashalli called Doc Simpson the next morning. The medico brought over his doctor’s bag and set up on a chair next to Tom.

“Okay. It is time for a pain shot, and *no arguments*. This one is going to just take the edge off for about twenty-four hours. It will not put you to sleep although I suspect that you are tired enough from lack of it to drop off in the next hour. Then,” he held up a small vial, “three nights of great sleep courtesy of nothing stronger than melatonin. A natural sleep aid, just in a time released pill that also has a little something to help you wake up in almost exactly eight hours.”

He gave Tom the shot in a part of the inventor’s right arm not scratched up from the asphalt. Three minutes later Tom’s face relaxed and he grinned.

“Wow! Is it supposed to take effect that fast?”

Doc nodded. “Yep. It’s fairly new but as you can tell it is effective as all get out. So, I’m also leaving this salve with your wonderful and hopefully slightly sadistic wife.” He handed her a tube. “That has a topical pain reliever for all the road rash you received. The thing is it is going to hurt like the dickens for about five seconds wherever she rubs it on.” He turned to her. “Now, Bashalli, you have to promise me you will put this on him in about four hours and then every four until bedtime, then again

tomorrow morning. I promise you this will numb any spot it is applied.”

She nodded even though she disliked the idea of causing her Tom any pain.

Doc turned back to the inventor. “You may go to work tomorrow. You will still be sore and if you drop by the Dispensary I can give you another shot. You lucked out this time. No concussion, no broken bones and nothing that will last other than a few places where you’ll have scars on your arms.”

Bashalli silently cried as she watched Tom’s face contort with the pain of Doc rubbing on the cream, but as it took effect and she saw his obvious relief, she now wept for joy.

Tom took her in his arms and kissed the top of her head.

“It’s okay, Bash. Really. Just a couple seconds of *ouch* and then it all went away. It’ll be okay when you do it. I promise.”

By the next morning Tom was still very stiff and sore—enough to visit Doc first thing for a second shot—but his road rash had begun to scab over and the salve was helping a lot.

When he walked past the front desk and greeted Trent, the secretary asked if he was truly doing well.

“Yes I am, Trent, and thanks for asking. I don’t recommend being tossed off a moving semi truck, though. I guess that even a stunt man would have ended up as sore as I am. I assume dad is in?”

“Yes he is, and he is just finishing up a call with the FBI in Washington. I’ve only heard him raise his voice once so I hope it is going well.”

Tom grinned, ruefully, and went into the office. Damon was just hanging up the phone.

“Good morning, Son. You look only slightly the worse for wear. Did Trent tell you who I was on the phone with?”

Tom nodded.

“Well, have a seat and I’ll tell you the upshot of the conversation.” Once Tom sat down at this own desk, Damon continued. “Agent Evans has received disciplinary action but is not being dismissed. Before he left the area on Saturday he went out and videotaped everything in the area. That includes the two tracking devices that had been under the bumper. It appears the thieves pulled them off and tossed them from the truck right after they tossed you out. The agency is working to get fingerprints off those.

“He also found, as you suspected he would, the trailer of the semi truck abandoned on a side road just a mile farther down. The two sedans had been driven up inside the trailer. They also found the body of one of the supposed agents. Either he wasn’t fully on board with their plan, or they discovered only three of them fit in the coupe and reduced their ranks.”

Tom shuddered at the thought of such coldhearted people. “So, if there were two who tossed me out and at least one driving the truck, that means there are still six out there.”

After nodding, Damon told him, “I think you are going to need to come up with some way to track your car, Tom. I know there is the heat signature thing, but if it is only used at night then the car won’t be detected. We don’t know how smart these men are, but we do know they are unscrupulous. There’s no telling what use the coupe could be put to!”

Feeling that he needed complete quiet to concentrate, Tom headed for his underground office and lab. There, he began to pour over each and every detail of the TruStealth technology hoping to find some Achilles heel. He knew instinctively that he and Arv and Linda had done such a good job of things that such a weakness was unlikely to present itself, but he also knew that no perfect system was 100% perfect.

An hour later and still nowhere close to an idea, he called the other two asking them to come over as soon as possible.

When they arrived he was about to launch into an explanation when Arv stopped him.

“Your dad let us know about this on Saturday, skipper. We’ve been racking our brains over this since then. Individually we’ve got nothing, but I hope together we can find a tiny chink in the armor.”

“I’ve found nothing in the technical details,” Tom told them, “but I’m thinking we need to set up a new test system. Something like the car.”

When the others looked at him with curiosity, he explained further. “Something with the four sides and the top-down devices. It can be just a rolling box with a single TruStealth device on each side and a pair looking down to handle the upper views.”

Arv brightened. “While Linda cobbles the units together I can build a remote controlled mini car. Maybe about five feet long, two-and-a-half wide and the same tall? It could be a box, but I think I can give us a one-third scale car just like the test coupe within the next full day!”



Tom agreed.

When the others left he went back to his computer and his voluminous notes. By day's end he was no closer that when he started, but he felt better physically as well as mentally.

Before quitting time the next day, Arv called. "The model is finished and outfitted, skipper. Linda and I did a quick test and it works. Want to come see?"

Tom came over five minutes later. He had half expected to arrive to an empty space filled with an invisible model, but there it sat in the middle of an open area.

"Hank Sterling was able to scale down the body panels and get those out last night in the vacuu-form over at the Construction Company. I spent a lot of time up until midnight making the chassis and drive system. Linda got the packs finished around noon today and she and I cut, glued and wired up everything after that. All that remains is to add the two batteries and a computer."

Tom slapped himself on the forehead. "Oh, man! I should have thought of that. I just sat around reading all of our notes yesterday and today." He paused and looked at them before breaking out laughing. "All right. So I didn't just sit around today."

He pulled out a small black box from a bag he had over his shoulder. It was about seven inches long, five inches wide and an inch plus a little tall. Handing it to Arv, the model maker could now see the power input port as well as a dozen small ports for the optical fibers.

"It only has one of the really fast microprocessors, but that ought to handle the six TruStealth units," Tom told them.

In a matter of minutes the computer had been installed and held in place using hook-and-loop tape.

Taking the remote from Linda, Tom flipped the master power switch on the controls while Arv reached in through the open side window and pressed the activation switch in the model.

The car went invisible as soon as Tom moved a slider up into position. Setting the controls down, Tom, Arv and Linda walked all around the area where the model sat.

"I'd say it's invisible," Linda told them. She reached out and touched the top of the little car. "It's there, alright." She laughed realizing that her hand had disappeared about a foot from actually touching the surface.

Tom went around to the other side. As he fully expected, he could see all the others standing there even though the model

technically was blocking them from about the waist down.

With a smile Tom announced, “Great! Tomorrow, because it seems that we all worked late, we start trying to defeat the TruStealth.”

Arv looked a little apprehensive. “What if we do, skipper? Does it mean the whole system is doomed to failure?”

Linda, too, looked worried.

Tom’s head tilted forward. He shook it slightly. “I’m not sure. All I do know is that what we set out to make to protect and possibly save lives might be used to do the opposite if we can’t find a way to detect what’s underneath the shielding.”

He looked up into their expectant eyes.

“Don’t worry. If we have a really difficult time with this, even if —when—we succeed, we might only do so because we have a test bed like this.” His hand swept forward to indicate the model. “Anyone just trying to overcome it would have an impossible time. They could never get near enough to really study it without the Navy shooting at them.”

In his head, Tom added, *I only hope I’m right about that!*

Without consulting each other, the three arrived at Arv’s workshop about seven a.m. the next morning. While the model maker went to the cafeteria to get them all fluffy coffees—a half sweet chocolate milk, half strong coffee for Tom, a chocolate chai for Linda and a run-of-the-mill mocha for himself—the two got the model out of the makeshift container it had been locked in for the evening and checked it out.

With a series of small green LEDs showing inside the car, and the four representing the major channels on the remote, Tom had carefully steered the still-visible model out of the workshop and to the door of the building.

Linda placed a lightweight nylon cover over the top and together they escorted it over to the Barn.

The area had been mostly cleared and the retractable sides put in place for their first round of testing.

With multiple objects around the perimeter of the building along with Bud, Sandy and a couple other Enterprises employees who knew about the project, they ran the little coupe around taking video from the sides as well as from above.

After an hour, Tom called a halt. He thanked the others in attendance and reminded them of the secrecy surrounding the entire project.

Sandy rolled her eyes while everyone else nodded and mouthed their agreement.

As the model was being covered and escorted back to the workshop and locked up again, he headed to the shared office with a memory stick full of the videos.

He had been reviewing the first of the upper views when Trent buzzed the young inventor at his desk.

“Tom, I just took a call from the Adjutant to Admiral Hopkins down in Virginia. He said to tell you that the Admiral will be expecting you in his office at oh-nine hundred tomorrow morning. It didn’t sound like a request.”



## CHAPTER 12 /

### ADMIRAL HOPKINS IS NOT PLEASED

“HOW IN the name of Poseidon could you let something like our project just get driven away?” The Admiral sounded like he was close to exploding.

Tom sighed. He was seated across the large oak desk that sat in the middle of the Admiral’s office at the Dam Neck Naval Base. “Admiral. I assure you it was not our intention. In fact we never let the car leave our premises until a few minutes before the attack and theft happened even though a few people from your Purchasing Department had wanted us to try it in public earlier on. We received permission from the FBI to take it onto a closed off road around Enterprises for testing against a variety of trees and terrain. It was rogue FBI agents who stole it!” When the Admiral seemed about ready to shout over this news, Tom interrupted him with, “There’s something else I need to tell you about all this.”

He reminded the Navy man about the first two intruding jets at Enterprises and how the second one had contained an incomplete “dirty bomb.” He said it might be the thieves’ intent to use the stolen coupe in the same way.

Not at all please, the Admiral was nonetheless astounded and disheartened by the news. Its meaning, now that the invisible car had been stolen, hit like a ton of bricks.

In a calmer voice he inquired, “Did you notify all the proper authorities about that bomb?”

“Yes. Of course we did, sir. And the NRC came out and took charge of the incident and transported away the bomb materials.”

The Admiral let out a short string of curse words, a couple that even made Tom blush.

When he calmed down, he asked, “Did either of these attacks happen before or after Commander Roberts and I visited?”

Tom didn’t hesitate. “Both happened after the initial visit. May I ask why?”

Admiral Hopkins shook his head. “Tom. You and I both know I can’t answer that. But, we also know each other from years back—your father and I go back even farther. I think you can guess why I asked.”

It hit Tom like a lightning bolt. Commander Roberts may now

be a suspect!

“I understand and won’t ask again.”

“What I can tell you is that Roberts went on leave the day after you and I spoke, and I had you brief him about the test. He hasn’t been seen or heard from since. I have asked that he be declared a deserter even if it has been just about a week and not the traditional twenty-eight days. You ought to tell that Harlan Ames of yours to be on the lookout. If he is somehow involved, then he might just turn up around there.” After that the Navy man refused to discuss the subject of the Commander.

“What can you do about the car?” he asked the young inventor.

“We have just started the process, sir. I’ve had a smaller test model built that we will use to try every possible solution for overcoming the invisibility devices.”

The admiral looked very uncomfortable. “Doesn’t that mean your success spells the end of this project?”

“I don’t believe so,” Tom answered cautiously. “You see, we have an advantage that nobody else would have. We have the absolute secret of how things work. Nobody else could get near enough without your sailors knowing they are there.”

“What if someone were determined enough to get onboard an outfitted ship and steal the system.”

Tom gave a laugh. He then explained how the system currently under development worked. How it came in dozens and dozens of pieces along with what would be a fairly massive computer to run everything.

“The individual boxes might be stolen, Admiral, but they wouldn’t do much good. It would just be getting the thieves a high definition camera and an electronic projector that can’t function without the main computer. A computer that will be, by the way, at least the size of a standard kitchen refrigerator.”

“I see. Pretty hard to sneak off with something that big I would guess. So, one won’t work without the other?”

Tom agreed this was true.

“What if we never get that damn car back? Won’t that give the bad guys a good start on knowing how to defeat the systems on any ships?”

The inventor sighed. “It would. However, as long as the authorities keep on their toes it would be difficult to get the coupe out of the country. Out of the State for that matter. It still follows all the rules of physics. Nothing else can be in the same space. It

still weighs about one-and-a-half tons. It still puts out noise from the engine and the tires as they move over the road.”

“So, all we need is for them to drive over a scale in an absolutely quiet part of the state and we have them!” the Admiral stated sarcastically.

Not to be deterred from trying to keep things upbeat, Tom responded, “At least they can’t pack it away in a truck. The weight would be off from any lading bill. They can’t roll it into a cargo plane or a boxcar without it fouling the air with the engine running. And,” he now smiled, “I set that test version up so that the car needs to be running for the power circuits to make and keep it invisible. Shut it off and it appears again!”

“Thank the stars for at least that much,” Admiral Hopkins told him. He glanced at his watch. “Listen, Tom. I hate to get you down here, nearly shout you into the carpet and then just say go home, but... go back to Shopton and keep working on a way to find that car! I’ve got to leave in half an hour for Washington where I will be meeting with the Attorney General and his lead man in the Justice Department as well as the current head of the FBI. Don’t say anything but that last position might be changing because of this incident!”

Tom left heading for the Oceana Naval Air Station field where he had come down in his Toad jet aircraft.

On a whim, he called New York Air Control and received permission to overfly the city at an altitude of five thousand feet. It put him at the upper limits of unencumbered airspace, but he wanted to see what it looked like down there from an altitude.

Secretly he wished that he would be looking down when his missing car suddenly reappeared and he could radio the authorities and have it all back by that afternoon.

Tom chuckled and shook his head. It wasn’t a good idea to be daydreaming while flying.

His flight over Manhattan took him from the very lowest tip to the uppermost one. The Toad flew around the island city twice before Tom radioed that he was about to leave the area.

“Swift Two. Understand. Request that you hold three minutes to allow Air Scotland heavy to traverse your departure area with declared emergency.”

“Roger. Call when clear. Swift Two, out.”

The call came four minutes later. Tom had a great view of the old 747 jet as it lumbered a thousand feet below and to the north of his position. He got on the radio.

“New York Control? Swift Two. Be advised that Air Scotland heavy is trailing smoke from its number three engine.”

There was a pause, then, “Swift Two. Thank you. Stand by...” Twenty seconds later, “Swift Two? You are nearest to Air Scotland heavy. Can you follow and report if any flames are present?”

Tom pulled the throttle out all the way, pressed the left pedal and gave the Toad the corresponding stick as he replied, “Roger. Swift Two on the way now.”

Tom quickly gained on the large jet. Where the stricken airliner was making just under two hundred knots at present, he was soon going over three hundred and fifty. In another minute he was slowing down so as to not overshoot the slower jet, and was about two hundred feet above and to the rear.

“Swift Two reports no, repeat no flames from Air Scotland heavy. Smoke is decreasing but still present. Do you want me to follow them into JFK?”

“Stand by... Swift Two. Negative. Air Scotland heavy captain sends thanks from emergency channel but says they are maintaining full control. You are clear to depart at your leisure. New York Control, out.”

Tom checked the visible airspace all around his position. Evidently the commercial air traffic had been moved away to allow the 747 to come directly in, so he swung the Toad around and headed for Shopton.

He contacted the large Northeastern Control tower situated above Enterprises. They cleared him to come in from the south and then passed him down to the Enterprises tower.

“Be on the ground in twenty minutes,” he reported.

“Great, Tom. Runway three-five clear. Winds negligible and on your nose, barometer two-nine-nine and steady. Visibility twenty miles. Only traffic in area is anticipated departure of regional flight to Portland about two minutes after you get here.”

Tom landed on the indicated runway but noticed in the distance, on the other side of Shopton, the regional airline was taking off early. Either they were running behind the daily schedule or anticipated being behind at some point as they rarely left before scheduled.

He parked the Toad in front of the Barn and walked to Arv’s workshop.

Arv and Linda were in discussion about something. When Tom cleared his throat they turned and waved him to come over.



“Just been looking at something Linda spotted in our test model, skipper. She says we misplaced the down-facing cameras.”

Tom looked curiously at the woman. She didn't say anything for a few seconds so he nodded at her. "And?"

“Yeah. Sorry. But it turns out that the CAD program Hank used to generate the side and roof panels was not the best placement in the full-size car. The finished goods had to be bumped out about ten millimeters at the top to accommodate the equipment rack. It isn't much, but we were trying to figure whether it might make enough difference that our model is not correct for our testing.”

Tom asked to see the specs. He spent nearly a half hour going through all of them before looking up at his friends.

“I don't see where that small difference—just over three millimeters on the model—is going to make a lot of difference. What do you two think?”

Arv spoke first. “I suggested that we at least cut, reposition and fill one side and leave the other as is. Linda is of the opinion that I'm being an old woman and it is fine right now.”

“That's two old women against your cautious approach, but I have to say you have a point. If nothing else it give us two things to check in one vehicle. So my vote goes to Arv. Sorry, Linda.” He looked to see if this decision bothered her.

She smiled.

“I knew it would go that way, Tom. In fact, if you hadn't decided in his favor I would have—” she made finger quote marks, “—*given in* on this and changed my suggestion.”

“The question then becomes how long to do it?” the inventor asked.

Arv and Linda shared a glance.

“At least fifteen minutes, Tom,” he told his young boss. “Perhaps as long as twenty. Fortunately, Hank made the panels out of a hard plastic we can actually cut through. I can take the patch piece I've already run through the hot bed 3D printer and get that glued into place. Then, we can fill the space with some self-leveling liquid plastic and cure it.”

“I don't see you two hopping to get this done,” Tom laughed.

Arv saluted and went to work. Eighteen minutes later you could just see the small gap that had been filled with a matching red sealant. From ten feet away the work wasn't visible.

For more than a week they tested the model using various ways

to try to see the unseeable. Nothing they tried revealed any portion of the test model.

It was only at that point the first possible “sighting” of the real coupe was made.

In New York, and to be more precise in the lower West side of Manhattan, and to be exact, at the corner of Lafayette Street and Canal Street, a pedestrian was hit and severely injured. This happened in broad daylight and the three people who stayed to assist told police that absolutely nothing hit the man. He apparently simply folded to his right side at an odd angle and was flung into the air.

By *nothing*.

When Tom heard about this from Harlan Ames he stood, frozen to the spot. His heart was racing both with the enormous sadness he felt for this man but also at the excitement of knowing this must have been the *InvisiCoupe*.

“I have to get down there,” he told the Security chief. “First, to interview the man and then to see if I can pick up any clues.”

Harlan shook his head. “The first part I understand, Tom, but how the heck do you think you can pick up clues?”

“I’ll go on television if I have to. Ask the public to report any strange happening like this one. Maybe we can figure out a pattern and—” He tailed off seeing Harlan now shaking his head even more vociferously. “What?”

“Tom. How would you propose to ask the public to be on the lookout for an invisible car when the thing isn’t supposed to be out there? Can you imagine how the Feds would take that? Super Duper Top Secret project that good old Tom Swift is yammering on about during the six o’clock news?” He gave Tom a look that told of the seriousness of this.

Tom’s head hung down to his chest. “Right. Brain not in gear. Sorry.” His head came back up. “I just wasn’t thinking about the consequences. Do you think I ought to go talk to this man?”

The Director of Security for the Swift family of companies shrugged. “I’m not sure, Tom. Let’s assume that he survives. Obviously you can’t tell him anything about what hit him. If he’s got half a brain and Tom Swift shows up he could put two and two together and realize this might be an opportunity to sue Swift Enterprises. That makes the front page for certain. ‘Why is Tom Swift interested in this?’ the headlines would scream. You’re an adult and I can’t tell you no, but I strongly caution against it.”

“What if this is our only clue?”

Giving a single chuckle, Ames told him, “Then nothing could be gained from you going there. Let me make a call and see if I can get an acquaintance in the NYPD to go ask some private questions of the man.”

Tom reluctantly agreed.

When Ames’ friend called the following day it was to report that the man, a former U.S. Navy Seal, was going to be okay, and that he had a notion something top secret was going on.

“My friend says the man told him, ‘My guess is that this is something hush-hush and the accident was just an accident.’ He says he doesn’t intend to pursue it as long as his insurance picks up the hospital and physical therapy costs.”

“Let’s make sure that happens, one way or the other,” Tom directed.

He was willing to let it go at that when a call came through he following day from the FBI.

“Agent Evans for you, Tom,” Trent announced.

“Tom here,” the inventor said into the mouthpiece as he picked up the receiver.

“Tom. Sander Evans. Listen. I’ve sure you heard about the man who got clobbered in the street a few days ago. But, that isn’t why I called. We’ve had a robbery. A merchant bank only about eight blocks from that accident was hit an hour ago, just as they opened their doors. Folks out on the street say that three men got out of a, get this, a sleek, red sports car and walked up the stairs into the bank. Ten minutes later they left along with about one hundred thousand dollars. The three got into the red car and drove off.”

“I’d like to believe this might be our car, but how can anyone be sure?”

“Because one witness said she watched the car speed off and just vanish in traffic. Not disappear with cars all around. Vanish as in sort of  *vaporize!*”

Tom had trouble getting any words out, but the agent went on.

“The clincher is that the bank’s security camera caught the car sitting there for at least an hour. It drove up and parked before eight. One man got out, put some bills into the parking tag machine and got back in the car with it. I’ve seen some stills. It’s the coupe for certain.”

Now Tom had many, many questions. The first one was, “Did the camera get it going invisible?”

“No, that happened a couple blocks away and there doesn’t seem to be a camera pointed where that happened.”

“Okay. So what did the man that got out look like?” He heard the agent take a deep breath.

“He wore a baseball cap so nothing of his face, but his forearm was bare. Sleeves rolled up, and—”

“Let me guess. He has a tattoo of a green teddy bear there with a snake wrapped around it?”

“Yeah. Yeah, according to at least two of the witnesses he does. That means that unless there are multiple dark haired heavysset men with that tattoo out there, one of our people is Abdul the Righteous.”

“But, that would mean that terrorists have the car!” Tom said with great alarm.

“It very well could mean just that,” the agent agreed. “The other news is that we found another of our missing agents from the abduction. He turned up at the back of an empty lot up on 183rd Street. He’d been shot but is still alive. The bullet grazed his skull and he’s in a coma, but the doctors say he ought to wake up in a day or two with a fantastic headache, but little permanent damage.”

Something the agent had said a moment ago popped back into Tom’s brain.

“Did you tell me the woman who say our coupe described the disappearance as *vaporizing*?” He could hear papers being rustled as Evans evidently was looking for her statement.

“Here it is. Let me read... right! Here’s her quote. ‘I saw that sleek, red car race off down the street. It weaved in and out around a couple cars and then turned to vapor. I could sort of see through it for a second before it vanished completely.’ ” Evans paused a second. “Does that help?”

“I may. I’m not certain how right now, but that isn’t supposed to happen. The system is like a light switch. Turn it on and it works within about fifty milliseconds. Far too fast or the human eye or brain to detect. Now I have another mystery to look into. Uh, thanks. And, I’m sorry about your agents.”

There was a snort or derision from the other end. “I’m not! Those miserable ba— miserable guys might be responsible for untold deaths. They deserved what they get!”

Tom thought this a bit harsh, but held his tongue. He said, “Goodbye,” and hung up.

As he sat thinking of what to do next, the intercom buzzed again.

“Tom, it’s Trent. Dr. Wiberly is on line four.”

“Thanks.” He pressed the button. “Dr. Wiberly. It’s nice to hear from you. What can I do for you, sir?”

“Hello, Tom. I know it has been weeks but I finally have the results of the tests on that nuclear material from the jet drone. I used to be easy. Back when only about twenty nations had nuclear capability you could identify an isotope in days. Alas, it now can require months. I hope what I discovered can be of some use.”

“And, what is it? Have you figured out where the materials came from?”

“With about ninety-eight percent certainty. The materials had at least three signatures, but each of them can be traced to the Middle East. Iran to be exact. As they still have a trio of enrichment facilities being fed by two nearly identical uranium mines, everything coming from there shares these certain markers.”

Tom was alarmed but not particularly surprised. He thanked the doctor.

As he sat there contemplating this new information a sudden shiver ran down his spine.

The man with the green tattoo was a known Iranian terrorist. Iran was the most likely source of the nuclear materials that had been flown into the area. And evidently the terrorist had his invisible car.

It all added up to a horrific scenario!



## CHAPTER 13 /

### IF IT'S INVISIBLE, HOW DO YOU FIND IT?

THE QUESTION on everyone's mind, but simply and straightforwardly asked by Chow, was, "If the durned thing's invisible, how the heck do ya plan to find it?"

"That's a good and reasonable question, Chow, and I wish to heck that I had an answer," Tom admitted to the chef the next day. "We're working on tearing the entire process down to see if there is some tiny place where we can peek in and see the car, but for now it's looking like I did too good a job on making the system work."

Tom felt no qualms about telling his cook about the top secret project. Chow had been with the Swifts since Tom turned sixteen and absolutely understood the need for secrecy. He had made at least one blunder early on and had learned his lesson.

Chow scratched his head a few times before asking, "Cain't ya turn it off by ree-mote control or sumptin'?"

Tom shook his head. "We never thought we'd need to do that. The thing can go invisible from all sides and from the top when the car is turned on."

"Wahl, then cain't ya just put some sort o' mirror on the ground an' look up? Ya otta be able ta spot what ya built compared ta the other cars." His look of sincerity made Tom's heart feel—

But, wait! The westerner had just said something brilliant.

"Chow! That's it! Or, it might be. You're right that we never thought of looking up from underneath. Of course we would be able to tell it apart from any other car. It's totally unique."

Now smiling, Chow asked, "So, now ya get out there an' bury a few cameras and afore ya know it, ya got 'em?"

Tom's brain fully engaged and he sank a little. "Wish it were that easy, old timer, but it is something. I'll have to see if there is any way to put special cameras along a few roads in New York—that's the place were the car has been seen, or rather, unseen, at least twice."

When Tom brought the subject up with his father an hour later the older inventor nodded and pursed his lips.

"Sounds like one avenue, and no pun intended there, to look into. But I would hand that off to someone like Hank and let him run with it while you and Arvid and Linda keep on trying to see

through your technology.”

It wasn't until that night when Tom sat up in bed, knocking the book from Bashall's hand, that the meaning of his father's words hit.

“Bash? I'm going to tell you something you can't know. You can't speak of it to anyone except me and only here in our house. Not even at Enterprises. It's that important, but I need to run something by you. You think along artistic lines, not hard, solid logical facts like I do. So, I value your opinion.”

After hearing the sincerity in his voice—her eyes now wide with wonder at what might be coming—she agreed, Tom told her about the invisibility system and the loss of the *InvisiCoupe*.

“That's what really happened when I ended up all bruised and scraped up, not a tumble off the wing of the Toad like I told you. I'm sorry I lied to you.”

Eyes now glistening with tears, she kissed and forgave Tom.

Eventually he turned to the subject of their search.

“Dad said something today that only now made it into my head. He said something about seeing through my own technology. What does that mean to you given that I've described the system in general terms?”

Thinking a moment, she told him, “I'm going to go downstairs and make us both a cup of tea. I need the warm vapors to stimulate my brain. Be back in five minutes.”

She hopped out of bed and went to the kitchen returning with a pair of steaming mugs and climbed back in next to Tom.

“Okay, I was thinking about your question downstairs. I believe you need to take his words exactly as he spoke them to you. That you need to discover a way to look past the projected images and see what is underneath.”

Tom nodded slowly. That was his interpretation as well, but what it *meant* eluded him.

“How would I go about doing that? I'm trying to see through the light already.”

She took a sip and lay back in her pillows. “Maybe you are looking to find a way to see just the car. Why do you not—don't—you try to focus on the place outside the car where the images are projected and then use some other method for seeing the precise distance inside that to where the car is?”

He was getting tired so it took several seconds for her words to



process. Turning to her, he asked, “What do you mean by that, Bash?”

She shrugged. “I am not certain. It simply seems that if I were looking for something sitting behind an invisibility wall, I would look to see if I could find the wall first, and then look the exact distance I knew my object would be behind that. Does that make sense?”

“Not entirely, but there is some germ of a possibly great idea in there. I just have to get some sleep and then give it a lot of thought. First, though,” he leaned forward and kissed her, “there is your thank you gift. Now, I need to write a few notes and then zonk out.”

He wrote about a paragraph before his eyes closed. Shaking his head he opened them to discover nearly ten minutes had passed. Bashalli was asleep next to him. He checked to see that the notes made sense, set the pad on the night stand and turned off his light.

He was asleep seconds later.

In the morning Bashalli admitted she had made them mugs of “Beddy-Bye Tea,” something full of herbs to cause the drinker to relax and close their eyes.

“I hope that my little plan to get you some sleep didn’t ruin your notes.” She looked at him apprehensively.

Tom smiled. “Nope. Got what I needed plus a little nap!” He told her about dropping off. “My neck’s a little stiff, but I think I finally grasped what you were talking about.”

After a quick toast and coffee breakfast he left for Enterprises while she finished getting dressed and left for the advertising agency.

Tom entered the shared office to find Bud already sitting in the conference area.

“Here a bit bright and early, aren’t you, Bud?”

“Yeah. Did your darling wife make you that noxious sleep drink?” When Tom nodded, Bud continued. “Sandy made it for me, but she gave it to me with dinner. I barely made dessert before I wanted to hit the sack. She got a little testy with me for heading to bed at seven-forty, but I pointed out that she was the one who drugged me.”

Tom laughed. “At least Bash waited until we were in bed and talking about the *InvisiCoupe* problems.” He stopped suddenly, looking to see how Bud took the news that Tom had shared such top secret information with his own wife. He need not have

worried.

“I’d never be able to tell blabbermouth Swift-Barclay anything like that. I envy you and your tight-lipped wife. All my fault for marrying the first woman who said yes!” He sighed but was grinning.

Tom told him about the idea Bashalli had come up with.

“Do you think that’s the answer?”

“I wish I knew, Bud. It might have some merit, though. I need to spend some time looking into all the Telejector frequency data and such before I can decide if there is a place to even begin. But, you came here with, I imagine, some purpose. What can I do for, with, or to you?”

Bud got up, making a great show of it, and came to sit across the desk from his friend.

“Deep in the middle of the night, and probably because of that darned tea stuff, I had a dream about the new space station.”

Having nearly outgrown the original Outpost in Space, Tom had, in conjunction with building his High Space L-Evator, begun construction on a new, giant station. Built more like a large tube than a wheel, it would eventually rotate giving apparent gravity to anything inside or anyone standing with their feet pointing to the outside.

“What sort of bad dream?”

Bud leaned forward and placed his elbows on the desk. “Well, I was talking with Red Jones yesterday. He just came down from his two-week stint managing the site up there, and he was telling me about how they are going to have to start spinning the thing early. He didn’t tell me why and I suppose that got me worrying. What gives?”

Tom grinned. “It’s really nothing except that I did new calculations that show how difficult it will be to start the spin once the thing is finished. It would take about eight times the rocket or repelatron power and have to be so carefully coordinated to avoid any stress on the hull. So, we are going to get it spinning at about one-tenth speed starting in a week. It will make the construction of the rest of the hull slightly more tricky, but everyone will get used to it pretty quick.”

He gave Bud some details of the sorts of stress and strain getting an object several hundred feet across and even longer than that up to rotational speeds enough to provide adequate gravity.

“The nice thing is that once we get the last fifty percent of the

outer, double hull built—in about eight months or so—having things rotating will make the construction of all the inside structures easier because the materials will float until they touch down, and then the slight gravity will hold them in place.”

“Ahh. So, nothing for me to worry my pretty little head over?”

“Only that you appear to believe you have a *pretty* or *little* head, Bud.”

As he rose, the flyer turned back to ask Tom, “Have you decided what to do with the old Outpost?”

Many ideas had been floated with the three most popular being: to bring it back down in pieces and reassemble it either on Fearing Island or right there are Enterprises; to take it apart and donate the different spokes to various aerospace museums (with the hub being set up at Enterprises); or simply leave it up there and turn it into a sort of resort.

“Dad and I are seriously thinking we leave it in orbit and rent it out to NASA. With the International Space Station having been decommissioned and crash-landed in the Gobi Desert for recycling of anything that didn’t burn up on entry, they have no real place to perform some of the many experiments that never got to go up. They’re already asking if they could rent a couple of the spokes.”

“Are you gonna let them?”

“Not right away, but we are getting ready to ask Ken Horton to rearrange a few things and consolidate two spokes into one. We’ve got some new down-sized electronics for him, courtesy of Linda Ming, so by this time in two months we might have a permanent NASA spoke with five or six new people up there.”

After Bud left, Tom started to digest the full meaning of Bashalli’s words the night before. He was fairly certain he understood what she meant, but his “logical” brain kept seeing the difficulties rather than the possibilities. Finally, he called Arv and Linda to come over.

He filled them in on what Bashalli was suggesting and then let them read his brief notes.

“Not a lot to go in, admittedly,” he told them.

“Well, perhaps there is more here than you think, Tom,” Linda told him. “As in, we *have* only been trying to see through the TruStealth system and not looking for the projected image like she suggests. It’s worth a shot.”

Tom agreed and soon sent them off to look into it.

The rest of his day was spent creating a computer model of the

wavelengths that are emitted from the Telejectors. By five-thirty he had a fairly complete model and made note on how he intended to use it in his search the following day.

He pushed his chair back, satisfied in what had been accomplished, and all of it based on his wonderful wife's *artistic* way of looking at things.

Tom was about to leave for the day when his TeleVoc pinged. "Harlan Ames," it announced.

Tapping his pin, he answered. "Yes, Harlan?"

"Bad news, I'm afraid. We received an emergency call from our man down in Pottsville, that Jonas Grumby fellow. He said he barely made it up to his tower and also that the man who we put in jail, Murphy, and a couple of his accomplices are trying to get him to come down so they can beat him. He says they're piling up some wood underneath him."

Tom was shocked. "That's horrible! What are we doing?"

"Before I called you I contacted the locals down there, our man at the cafe, and the hangar crew here at Enterprises. They're readying a pair of Whirling Ducks to take a Security force down. If you can get out to the helo pads in three minutes, you can come along."

Tom had already been racing down the hall and promised to get there as soon as humanly possible.

The helicopters were warmed up and ready when he arrived, jumping into the lead one and taking a seat between Harlan and Gary Bradley.

On the trip down, all five minutes of it, they discussed the plan of action.

Harlan still had Jonas on the satellite radio, but the man was near panic as he said Murphy's men had just set a fire under his tower, and had tossed a gasoline bomb into his boxcar, which was now in flames.

In the background could be heard the faint sounds of sirens.

Both helicopters buzzed the area as soon as they arrived, scattering Murphy and this men. One of the henchmen spun around and ran straight into a fire department truck as it came around the final corner.

Tom imagined that had he been there the sound of the man thudding into the front of the truck would have been both sickening and gratifying.

Paul McMaster, one of the Enterprises men and the one currently stationed at the cafe, pounce on that man and quickly had him in handcuffs.

The firemen paid little attention as they pulled out their hoses and one team began to put the fire under the tower, built from several old wooden ties, out, and to play their water on the underside of the tower to cool the metal. The other sprayed water on what was left of the old boxcar.

By the time Tom's helo landed several hundred feet away, the local police had the other accomplice in custody. All that remained was to flush out Murphy who had run into one of the old storage buildings.

Tom turned to the pilot of his helicopter, issued a command and stepped back. The helo immediately took off and moved into a close hover over the roof of the building.

Soon, dust and swirling papers and other light materials came rushing out of the large, open door on the end where Murphy disappeared. The downwash of the helo had broken through the old and weak roof and was stirring up a mighty hurricane inside.

Tom and Harlan, now standing beside the inventor, had to laugh when the prostrate form of Murphy came crawling out, one hand waiving above his body in surrender.

Tom gave a hand signal to the helo pilot who immediately moved up and away.

A pair of policemen moved in and soon had the man between them, hands firmly cuffed behind his back.

"What do you want done with this piece of trash?" one of them called over to Tom.

"Charge all three of them with a variety of things starting with damage to private property, damage to Swift corporate property and all the way up to attempted murder!" Tom told them.

"Corporate property, Tom?" Harlan asked.

"Sure. Right after we hired Mr. Grumby I contacted the railroad and purchased his boxcar from them plus lifetime rights to keep it here on their property." He grinned at his Security chief. "I figured it safeguarded his position here so he can act as our eyes and ears."

"We're going to have to see about getting a new car for him," Harlan said as he pointed to the now fully burnt one Jonah had previously occupied.

With some assistance from the firemen, Jonas had come down and was walking slowly toward Tom and Harlan.

“Glad old Murphy is gonna be in jail for the rest of my life, but where’m I gonna live?” He looked as sad as any man Tom had ever seen. “Uhh, he *is* gonna go to jail for a long time, isn’t he?”

“Oh, absolutely. We have all sorts of video footage that man over there—” he pointed to McMaster who was talking with several police officers, “—is turning over to the authorities. That plus your recorded call for help and you giving police their IDs will assure it!”

Sadly looking past Tom to his former home, Jonas asked, “Can ya put me up in a motel until I get a little cash ahead?”

Taking a deep breath, Tom made a suggestion. “Why don’t you let me bring a self-contained one bedroom house down here and set you up in style?”

While it was nothing the Swift organization kept on hand, they had previously built about fifty of the fifteen-by-forty foot units to support a community in Mexico that had been all but washed out by a mudslide the previous year.

“You once suggested you wanted one of the big shipping containers to replace that, so I’m offering you something better. We can have it here in a week. I’ll get running water set up, sewage connection, electricity. The works!”

A tear of either gratitude or loss, Tom had no idea which it might be, ran down the old man’s cheek. He stepped forward and placed a hand on Tom’s shoulder.

Looking deeply into the young man’s eyes he stated, “You’re one of the good ones. Your parents did good and you are an example of the best this country has to offer. Wish there were more like you. So, I say yes to your offer, but need to know how I’m going to repay you.”

Tom had a sudden inspiration.

“Listen, Mr. Grumby. I know you’re retired and like your monthly check and medical coverage, but how about working for Swift Enterprises on a full time basis? Full medical that I guarantee will continue even after you retire from us.”

Eyes now slitted, Jonas asked, “Why?”

Tom explained that once the car company began shipping cars out on a daily basis the rail yard down here would be the transfer point and was going to need to be run like part of the overall business.

“We need a man who will act as the overseer to offload the cars and get them transferred onto other trains and tractor-trailer rigs,

get the proper paperwork filled in and signed, and act as a sort of night watchman after hours.”

He would have his weekends off when another man would come to do the guard work.

The thing that sold it was when Tom explained that he could “work off” the cost of his new house by working for the Swifts.

“Might take a few years, but we’ll hold back a little each week from your pay,” he explained having absolutely no intention of doing any such thing.

When the fire trucks and police cars left, he had Paul McMaster take Jonas to a nearby motel where he would live for the week it required to build the house, do the utility work, and get it brought down and installed.

Two more days went by before Tom and Harlan spoke again.

“Just got off the phone with Agent Evans, Tom. More bad news. The final two of their rogue agents have been found. Also deceased so there will be no questioning them. The one who is alive came out of his coma last night but had to be put back into a medically induced one almost immediately when he had such a severe panic attack the doctors believed he’d have a major stroke.”

“So, no info from him for a while, I guess.”

“They want to let him go another eight or ten days before they partially bring him around. Then, Evans and some specialist at the FBI on such interrogations will see what they can find out.”

Before hanging up he reminded the inventor that these new deaths brought the number of known bad guys back down to just three.

*But, they’re the three nastiest,* Tom thought as he put down the receiver.





## CHAPTER 14 /

### OUT ON A GOOD TRAIL

TOM WANDERED over to the hangar where Bud kept his small office. For the past three days he had been in somewhat of a funk over the disappearance of the *InvisiCoupe* and his inability to find a way to get it back. But, to his surprise the flyer was not there. He turned around and headed for the workshop of his model maker.

The work he, Arv and Linda had gone through to see if Bashalli's suggestion held any merit had been thwarted by the Telejector's output being something other than light energy.

"Looks as if I made the Telejectors too good at what they do. But, I do have another possibility I'd like you to investigate.

He told them about a particular wavelength of ultra-short-term radiation he believed the latest variation of the projectors might be giving off.

"I found it in some of the first test specs you gave me, Linda. It could be nothing, since the signature remains viable for only about half a millisecond, but anything is worth a try at this point."

She promised to follow up on it.

\* \* \* \* \*

Sitting down at his desk in the underground office two days later he saw that a red spot on his monitor was blinking, indicating that he had a voice message. He tapped the screen and entered his code to retrieve the message.

*"Tom? It's Linda. I may have had a breakthrough on that radiation signature thing. I hate to put you off until tomorrow, but I've got a dentist appointment in town in twenty minutes so I have to run. Bye!"*

A small wave of relief passed through the inventor. Anything at this point was something to be grasped. He took a couple deep breaths, tapped the **SEND REPLY** button, and spoke toward the microphone on his monitor.

"Linda. It's Tom. First, I hope you've been brushing twice a day and flossing. At least that's the sort of advice I get from my dentist. Second, while I appreciate you leaving the message, now I will not be able to get to sleep tonight. It's like telling a child they are going to Disney World a few days too early. Oh, well. I plan to be in here by seven-thirty, so when you get to work, come on over. Caio!"

Evidently having checked her messages the night before, Linda was sitting in the shared office when he arrived at seven-twenty-

seven.

“Good morning,” she greeted him, pointing to a steaming mug of coffee sitting on his desk. “Brought that over from the commissary for you. Plus,” she pulled a folder with a dozen sheets of paper from her purse, “these. All my notes. And, I have to ask you, how the heck you figured this out?”

Tom had to smile inwardly. Shortly after giving Linda the assignment it had occurred to him that the incredibly brief duration of a single pulse of the radiation was never going to be detected by anything short of a motor home filled with ultra-sensitive equipment. He made a simple addition to his instructions, and it had proved to be a key.

“Well,” he told her, “it occurred to me that looking for the immediate radiation signature wasn’t going to register much at all. So, I am happy to see that the suggestion of looking at a longer duration from a buffer seems to have been a good one.”

“It sure was,” she told him going up on tiptoe and kissing his cheek. “Forgive the informality and don’t tell Bashalli, but you deserved that.” He could see that she was blushing.

“Tell me what you’ve come up with.”

“Okay,” she said stepping back. “While I don’t know if we will ever be able to see the actual car, I’ve come up with a way to detect and store at least a quarter-second of the radiation at a time and to give a monitor a sort of false representation of what that radiation wraps around.”

“If I’m hearing right, you take a fourth of a second of data at a time, process it to detect the specific radiation signature, and *then* you have some way to show that signature visually on a monitor?”

She nodded. “And I can interpolate the approximate size and shape of what is underneath that signature.”

“I guess the next question is, or questions *are*, how long does it take to digest the information and show it, and is the equipment anywhere close to being portable?”

Linda took a seat. “In my first setup it takes about a second-and-a-half to process the input and get it onto a monitor. I hope to get that down to half of that, meaning that each half second I hope to put a still image on the monitor.”

“I guess hoping for real-time video is out of the question.”

She shrugged, but then nodded. “Yes, and possibly not, but that’s way in the future. Mostly because right now the equipment for this is going to be about the size of a panel delivery van. But, so far that is just in the computer simulations. I think if I had to build

the unit today I might get it down to large suitcase size.”

Smiling at her, Tom congratulated her, adding, “That means we could take the thing on the road and drive all over Manhattan or wherever we have possible sightings.”

Now, Linda shook her head. “But I know I can do better. What I want to do is be able to make the equipment wearable, like in a backpack or even a belly bag, and put the detector element and the monitor in glasses.”

Tom let out an appreciative whistle. “That begs the question, how long?”

“Less than a week, as long as I can get a lot of help from the folks in Electronics and Nuclear.”

Tom told her he would give the word and she could have her pick. She left a minute later, very happy.

It took eight days but Linda proudly set a belly bag with small wires leading to slightly oversized dark glasses on his desk in the shared office.

“I got the sampling rate down to one-fifth of a second and the processing and display down to three frames each two seconds. Sorry, but there is so much to process that I can’t get it faster in this small package.”

Tom got up and came around to stand in front of her. He leaned down and gave her a small kiss on the cheek. “That, I owe you. It’s in return for the one you gave me the other week. Even though you said not to, I told Bashalli about it and she told me to give you one in return.” He looked up in time to see Arv Hanson step into the office.

“Did Linda show you her success?” he asked.

“She just got here ahead of you. I haven’t had time to put the thing on. I suppose we ought to go back to your shop to try these.”

Arv shrugged. “Yeah. Perhaps. But you also might want to just step out into the hallway with that on.” He now wore an enigmatic smile that had the inventor quickly snapping the bag around his waist and putting on the glasses.

“Under normal conditions the wire will go out the back of the bag, under your shirt and up through your collar,” he told Tom. “If you notice, we’ve made the wiring nearly skin color so it will be all but invisible.”

The trio walked out of the office and turned the corner past Trent’s desk. Arv put a hand on Tom’s shoulder. “Okay. Stop and I’ll turn things on.” With a soft click the system energized, and the displays inside both eyes flashed **BOOTING** several times before

showing a quick green dot and then looking as if Tom wasn't wearing any glasses at all.

But he was, and he nearly choked when he saw the hazy outline and soft details of the model invisible car model just twenty feet down the hall.

As he moved forward he discovered it was a bit disconcerting that the picture only changed every two-thirds of a second, but the wonder of what he was seeing overcame that.

"It's barely there, but I can see something. At least, it is something shaped like the model." He took off the glasses and turned to look at the others. "I'd say you've outdone yourselves, but I guess you already know that."

He helped them move the little model out of the hall and into a side room before they went back to the large office.

There, Tom made a few suggestions, three of the five Linda agreed were doable within the next day or perhaps two. The others, all dealing with the processing ability of the system, were beyond reach. For now.

Five minutes after they left, Tom got up and headed out the office door.

"Hey, flyboy," Tom said on entering his friend's office ten minutes later. He noticed that as clean and neat as his own desk and office space was, Bud's was always seemingly cleaner and more organized. This was true, even though the flyer had the habit of leaving things sitting around in piles.

It was just that they were always *neat* piles that looked efficient in some unfathomable manner. It never helped that the flyer could immediately put a finger on anything in any of the piles if requested.

"Hi, Tom," Bud greeted him in return. "I don't often get you dragging yourself all the way out to this corner of the world. What gives?"

Tom pointed to Bud's one and only visitor's chair.

"Huh? Oh, yeah. Have a seat," Bud invited.

As the inventor sat, he looked at Bud. "Want to take a trip that may lead to absolutely nowhere?"

Nodding, Bud replied, "You know me, Tom. Anything and anywhere and at any time. Well, any time Sandy gives me permission these days." They shared a laugh. "Where to?" he inquired. "The wilds of deepest Africa? The frozen plains of Canada? Deserts of Outer Mongolia?"

"Nope. How about New York City?"

Bud shook his head. “Nope right back at you. Too dangerous. Do you realize that Sandy would outfit me with a ‘buy me’ list something like a foot long and reaching into the half year’s salary range?”

“Don’t worry about that,” Tom chuckled. “Dad will take care of letting her know this is in no way a pleasure trip. It is also why she will not be allowed to take any time off and come with us. Ditto, Bash.”

Bud frowned. “Okay, so what’s on the agenda?”

“An unauthorized—at least by the Navy—excursion through the streets in an attempt to find any trace of our missing *InvisiCoupe*.”

The flyer whistled. “Wow. And, how? I mean, how are we going to see something that is invisible?”

Tom leaned over the desk a little and began explaining. They would first try to spot the car if it were being driven in the visible mode. With its unique styling and vivid red color, it was just possible they might happen on it at some point.

But, the other way was more of a slim chance.

“I’ve being given some special glasses,” Tom explained. “They have the ability to detect a certain energy wavelength coming from the Telejectors. I did a test on the model a few minutes ago, and what I found is they can give you an indistinct ghost image of the car if you know what you’re looking for.”

“Uhh, how ghostly?”

Tom shook his head. “My best estimate is that if both we and the car are standing still and there is little background movement, then a trained eye will see something. In motion, and I’m not so sure.”

Now nodding, Bud reminded Tom, “This is going to be the New York City as in Manhattan? The city that never sleeps? The one where there is still heavy traffic at three in the morning?”

“I never said it was going to be easy. We might never see a thing, but for now it is the only thing I’ve got. You with me?”

Bud stood up and reached around to turn his monitor off. “Yep! Let’s go!”

With a rueful laugh the inventor told him it was going to be at least another day before the glasses were finished.

“Besides, Trent needs to make reservations for us at a centrally located hotel.”

Bud suggested several he knew of close to the Lincoln Center. “Gets us into the low 60s for streets and there are several subway

stations around there.”

Tom TeleVoc'd Mr. Swift and requested that he call Sandy to tell her about Bud's assignment.

“I'm going to have to lie to your sister about this, you know. I think I'll let George Dilling prime the pump by giving her an important assignment starting tomorrow that she can't get out of.”

Tom and Bud discussed a number of things they needed to try on the trip and were about to pull up a map when the flyer's phone rang.

“That will be my wife,” Bud said, his face turning slightly pale. Taking a deep breath, he picked up the receiver.

“Bud Barclay.”

“Bud? It's Sandy. I have some terrible news. Tom is probably on his way over there to tell you. Tomorrow you two have to go on a mission down into the City. Daddy says it has to do with some Top Secret project that I can't be told anything about. I wanted to tell him I would go with you but George has to take a couple days of emergency leave starting tonight, and he needs me to cover for him at a conference in Houston. Can you do without me for a few days?”

“Aww, nuts. You say the skipper is going to drag me down to New York? I think I know what the secret project is, and your dad's right. It's way too hush-hush. We're not even supposed to discuss it in the cafeteria or hallways of any of the buildings. When do you have to take off?”

Sandy groaned so loudly that even Tom could hear her.

“In about three hours. Come see me when Tom leaves?” She sounded like a little girl.

“You bet! Love ya!”

“Back at ya, Bud!” she returned before hanging up.

“That went rather well,” he said to Tom.

“Just make certain to keep a straight face and don't do that thing where you look to your left.”

“Huh? What thing?”

Tom looked pointedly at his friend. “Whenever you get caught in a, well, not a lie but in saying something to deflect a question you don't want to answer, your eyes swivel to your left for a split second. Facial experts say that's a sign you are looking for an escape route. Sandy, even though she has no training, has been able to spot that sort of thing since junior high.”

Alarmed, Bud could only reply, “Ohhh.”

His face was considerably more relaxed when he came over for dinner that evening. Once she heard—from Sandy, of course—that Bud was going to be on his own that evening, Bashalli had insisted he come for dinner.

“Tom tells me you two are off on high adventure tomorrow,” she said, looking at their visitor as if trying to discover a clue to a lost treasure map.

Bud’s face was nothing but an innocent grin.

“Great of you to invite me over. I love Sandy, but Tom got the better cook out of the pair of you,” he said as a compliment. Bashalli took it as intended.

She served Tom and their guest broiled pork tenderloin she had marinated in some sort of peppery spice mixture. It was sliced nearly paper thin and went amazingly well with the tossed salad underneath it.

Bud took them up on the offer to spend the night. “I brought my bag just in case Tom wanted to get a really early start. Otherwise, I would just go sleep in the Toad. Uhh, that is what we’re taking down, isn’t it?” he asked turning to Tom.

“No. I don’t want to make any sort of big deal, so I thought you and I would take one of the rail racers down from the MotorCar Company, say hello to Jonas and make sure he has everything he needs, and then grab the NorthEasterner commute train down. As long as there are paying passengers on the platform it makes a quick stop.”

They arrived at their hotel exactly at noon. The commute train had been right on time and they had reached the nearby subway platform seconds before the train they wanted arrived.

“If the rest of the trip goes as smoothly as the getting here, we’re sure to spot—” Bud was saying but stopped when he realized they could not speak out loud about the *InvisiCoupe* or their reason for being in Manhattan.

It had been discussed and decided on the trip down to start their search the next morning, so they had lunch at an Italian restaurant a block away from the hotel—overpriced and over-salted according to Bud—and spent some time looking around the shopping mall adjacent to the Lincoln Center.

Tom found a beautiful necklace with matching earrings for Bashalli while Bud spotted a hand-painted silk scarf with a dog motif that he knew Sandy would enjoy.

As they prepared for bed Tom tapped his ear and pointed to the TeleVoc pin hidden under his collar. Bud nodded. Although the original pins required a master link computer, these latest ones

could keep two people standing within about fifty yards in silent contact. The only thing missing was the reproduction of each individual's voice. A computer-generated voice took the place of it.

"So, tomorrow we get up and have breakfast downstairs, then we hit the street," Tom said out loud. "We use these once outside."

"Okay, but where do we look? Do you think they would have the nerve to travel up and down Broadway or would they take streets off the beaten path?"

Tom pondered this. "At least for the morning, let's walk down to about twentieth and then back up as far as, maybe, eightieth. Right out there on Broadway. We both need some time to get used to the different way things look with the glasses."

It was very true. On walking out into the morning sun, Bud nearly bumped into a planter next to the Hotel's front doors

"Yikes!" he said as Tom reached out and steered him around the thing.

They reached the corner and turned to their right walking toward the lower part of the city. Both men glanced around at the traffic as much as they could. Fortunately, it took less than a minute to become accustomed to the way things appeared.

They didn't rush, but they needed to keep up with the other pedestrians so their pace varied greatly as they walked along. Two hours later they reached Twenty-first Street. Tom called a halt for a moment.

"I was looking as carefully as I could, Bud, but never saw anything out of the ordinary. Since you didn't shout out I'll assume the same goes for you?"

"Yeah," Bud said dejectedly. He had really hoped to pull a rabbit out and spot the car right off. "What now?"

"I don't want to split up because we won't be able to keep in contact except by cell phone, otherwise I'd suggest you head a block over and I go the other direction before we go back uptown."

Bud raised an eyebrow in question.

"But," Tom said reading the unspoken question, "let's hit the other side of the street and go back up."

They did, but stopped an hour later to have a bite to eat at a fast food spot near 43rd.

Tom kept an eye open out the front window but saw nothing. It was the identical thing he saw as they trudged up Broadway, passing their hotel and continuing another twenty blocks.

"That's odd," Bud said pointing at a light gray panel van driving



past them.

“What? I missed it,” Tom admitted.

“Probably nothing, but that van that just passed was keeping about three car lengths between it and the next car ahead. Nobody else is giving that much room to anybody.”

Tom felt an icy chill run down his spine.

“Bud! What if it was leaving room for *something*?”

“Jetz! *Our* something?”

Tom nodded. “Please tell me you got a look at the license plate.”

Bud shook his head. “No... wait. Maybe.” He closed his eyes trying to recall what was nagging at him. He opened his eyes wide. “It might have had a Connecticut plate. Not sure, though. Maybe that’s just wishful thinking after that vehicle that clobbered me had one.”

Tom pulled out his cell phone and dialed a number. “Harlan? It’s Tom. Bud and I just spotted something down here in the City.” He told the Security man what they did and did not see.

“I don’t like it. Not at all, Tom, What if it *was* them and they spotted you?”

Tom told him about the glasses they were wearing. “They’re pretty big and very dark. I’d say the chances of anyone recognizing us is really slim.”

“Let’s hope you’re right. I’d tell you to pack up and get back here, but I know you won’t. So, I’m calling the FBI to let them know about this. You two stay low key and out of trouble.”



## CHAPTER 15 /

### CONFRONTATION

THE FLYER and inventor continued their walks for another full day, only stopping for meals and, in Bud's case, to purchase a new pair of socks. Already a bit thin, he managed to walk a hole in one heel before noon.

On Friday, Tom had an idea, and they hired a sightseeing helicopter to take them slowly around the perimeter of Manhattan Island.

Both spent their entire two-hour flight looking down in an attempt to spot any sign of the *InvisiCoupe*. In the end it netted them nothing but an appreciation for the enormity of the island.

"I didn't see a thing," Bud said as they were climbing down the stairs from the helo pad.

"I doubt we could have seen them even if we were right overhead," Tom admitted. "Linda and Arv warned me that the effective range would be about a thousand feet. We must have been flying at just over most of the time. Well, at least we know how impossible this search is going to be."

Bud scratched his head and wrinkled his nose. "I don't know, skipper. What were the odds I'd see that van yesterday leaving all that space? I'll bet the *InvisiCoupe* was right in front of it."

Tom faced his best friend. "I don't know how we can ever be sure of that," he said rubbing his jaw in thought.

"Well, try this on for size," Bud stated. "It only hit me last night, but I'm pretty sure a car next to the empty space tried to change lanes to get in front of that van, but suddenly veered back into their lane. *As if they bumped into something!*"

Tom felt a chill down his back. "Oh! Now I wish I'd suggested to Arv and Linda to include a way to record video of what these glasses see. Anyway, it's getting close to dinner time, so we'll head back to the hotel, get cleaned up, and then have a bite to eat."

Two hours later they returned to their room, full and tired. Tom made several phone calls while Bud sprawled on his bed watching television. The local news was on. As he watched with the sound on low, Tom was explaining his impressions of the invisible car and the possible collision to Harlan.

Suddenly, Bud sat upright. "Tom!" he practically shouted. "Look!" His finger jabbed down on the volume controls bringing

the sound up.

A woman was being interviewed standing next to her car. The driver's side was dented from front to back, and she was saying, "So it was like something rammed me from the side. I was just trying to get over to the next lane when something hit me. It must have just raced off because when I stopped to see what had happened, nobody else did. Now, my insurance company says they won't pay for this because I can't tell them who or what hit me."

She looked close to tears.

After the reporter recapped the story and sent things back to the studio, Bud hit the **MUTE** button.

"That must be what I saw," he said excitedly to Tom.

"Harlan? I'm back. It appears that Bud may be onto something." He told the Security man about the news story.

"Okay. I'm coming down there tomorrow morning. I should get to your hotel before noon. If you would, go downstairs and reserve a room for me, preferably close to yours."

Bud went down to get the room while Tom made one more call.

"Bash? It's me. How are thing going?"

"I am sitting here, alone, watching a program I recorded the other day. With Sandra gone on her business trip, I have nobody to spend time with." She sighed. "Nobody to spend money with." She sighed again, but quickly broke down into a giggle. "No. I am fine. I would love for you to be home with me, but I can put up with things. I spent a little extra time at work today and it paid off."

She told him that one particularly difficult client had taken their business to another agency three months earlier, one in Boston, but had been unhappy with the results. They called to say they were "giving" her agency one more chance with their account.

When her management told her she and her team needed to come up with a flashy and new campaign she let them know how impossible the client had been before. Taking Bashalli's word against the client, even one who represented nearly five percent of their income the previous year, the manager phoned the man and told him to keep him business elsewhere.

"While I was sitting at my desk he called me directly and begged us to take his advertising back. Can you imagine that, Tom? He told me I was the only one who understood his products."

Tom was happy for her, but cautioned, "You might want to sit

him and your manager down to come to an understanding of how he works with you and your team. But, I'm very proud of you."

They were still talking ten minutes later when Bud let himself back into the room.

"Bash, I have to go. Bud just came back, and I need to let him call Sandy. I love you!"

"I love you, too. Bye!"

Bud's call was a bit shorter as Sandy was getting ready for an evening reception and sales meeting.

Early the next morning they got up, got dressed, and headed out. So far all the possible sightings had been south of Central Park, so they hiked down Broadway to about 42nd.

"Instead of us trooping all over, let's set up here at this coffee shop and keep a good watch on the street," Tom suggested.

Three hours later they were about to give up and go meet Harlan at the hotel when Tom's jaw dropped.

Plain as day, and driving down Broadway totally visible, was the *InvisiCoupe*.

"Bud! There it is!" he said, pointing.

The flyer's head whipped around. "Well, I'll be. Come on. Let's go after it!"

Tom grabbed his arm before he could run off. "No. We'd never catch it and I don't want to have a confrontation with them when we don't have any back up. At least we know it is still in the City."

By this time the coupe had disappeared, not going invisible, just lost in traffic. Even on a Saturday there was plenty of traffic on main streets like Broadway.

Bud hailed a cab while Tom bussed their table before they went back to the hotel.

Harlan was waiting for them in the lobby.

"Oh, there you two are," he said, rising to shake their hands.

Tom quickly told him about the sighting.

His jaw set in a very determined manner, Harlan told them, "Now we go on the hunt. I have already cleared things with the Police Commissioner and we will be able to borrow an unmarked police car plus he will give us a two-man escort car. Let me make a call."

In fewer than fifteen minutes they drove away from the curb with the NYPD car following. Harlan had them on the radio on a

special frequency. Both officers had been briefed by him to understand they were after a secret vehicle that had been stolen. He told them to expect strange things to happen if they found it, but to just do their jobs.

And, keep their mouths shut afterwards. They acted cocky about it all until he told them any information leaks could land them in Federal prison for twenty years. His look told them he was dead serious about that.

“Since they were last seen heading downtown on Broadway, let’s follow that path,” he radioed.

They found nothing more suspicious than an armed carjacking in progress. The police car had rushed around in front of Harlan and the boys and had captured the teen in a few seconds.

They waited for a second car to take the suspect into custody and then set out again. By six that evening Harlan called a halt. The officers headed back to their station while the three Enterprises men went to the hotel.

The next morning, the same two officers showed up at eight-twenty. The two-car caravan set out, this time on a zig-zag pattern of cross streets traveling down as far as 34th Street.

As they turned the corner at Park Avenue, Tom let out a shout.

The coupe had just driven past heading back uptown.

With the police car in the lead, Harlan and the boys were soon driving as fast as the traffic allowed in pursuit of the coupe. Several times Tom let out a gasp as it began to go hazy, only to fully reappear after a second. It was strange, but told him something was going wrong with the TruStealth system. Perhaps something they could exploit.

“I hope the police and anyone seeing that just thinks it’s heat waves coming up from the pavement,” Tom told them.

“Ditto from me,” his Security man said as they took another turn, this time onto 5th Avenue. The coupe was now about a full block ahead and totally visible to them in the less active Sunday traffic.

“Why do you suppose they keep signaling before they turn?” Bud asked.

Harlan laughed. You might be surprised to learn that more than fifty percent of people over the age of thirty who steal cars do exactly that. It’s the young ones that don’t. Look out!”

The coupe could be seen decelerating rapidly. Then, as the chase neared another intersection, the stealth car began to fade

and was invisible before it completed its turn!

Ames let out an expletive that both Tom and Bud were thinking.

The police car pulled over to the right, but Harlan kept on going, making the same turn and following along West 57th where the coupe had gone.

They ran into heavier traffic a block farther on and none of them could see anything. Tom already had his special glasses on. He rolled down his window and popped his head out trying to see any sign of the coupe.

“Nothing. Rats!” he said pulling it back in.

It was decided to let the police know the search was being called off for the time being.

“The one thing we know for certain is the coupe is still here. With every possible exit from the island being watched for any telltale signs, they are going to have to be careful if they want to get away,” Harlan said. “Any possibility of outfitting the cameras at those points with something like your glasses?”

“Sure, but if they head straight for a bridge or tunnel right now, it won’t do much good,” Tom said, a hint of defeat entering his voice.

Harlan took them back to their hotel. He told them he had to go speak with the Police Commissioner and from there would be going to the FBI offices.

“Pick you two back up in about four hours,” he promised.

“Well,” Bud said as the car pulled from the curb, making an immediate right turn, “I don’t know about you but I’m not ready to give up. What do you say to grabbing a bite and then taking a taxi back to about where we lost them?”

It sounded better than just sitting around, so the inventor agreed.

An hour later they stood at the corner of 57th and Avenue of the Americas looking up and down the street through their glasses.

Nothing.

They walked along 57th Street until they arrived back on Broadway.

“Right?” Tom suggested.

“Lead on.”

As they walked around the Columbus Circle area Tom noticed

that a grey van had pulled to the curb a block behind them. He was almost sure he had seen it back at 57th and 7th Avenue.

“Let’s go up Central Park West,” he suggested.

“Think they’re taking it for a little walk in the park,” Bud said with a humor he really didn’t feel.

“No.” Tom explained about the van. “I want to see if that van keeps following us.”

“Do we call Harlan?” Bud asked. He glanced back and told Tom he believed it could be the van from the other day.

“Not yet. I don’t want him rushing back here only to have to lecture us about crying wolf.”

They made it up the street to 64th before Tom stopped and took a surreptitious look behind. No van was visible. He shrugged and they walked on.

But at the next intersection, before they could start to cross 65th, the van came through the intersection, pulled to the curb in front of them, the door flew open and the muzzle of a machine gun poked out.

Two rough-looking men jumped from the van and hustled the young men back into it. In less than fifteen seconds, the van sped off through Central Park.

A rough fabric bag was shoved down over Tom’s head and he could both hear the sounds of, and get the smell the adhesive of duct tape being wound around his throat. He assumed Bud was receiving the same treatment.

His hands still free, Tom reached up and tried to tap his TeleVoc pin. It was now covered by the tape so he could not activate it.

Another wind of tape now covered his mouth. The van drove swiftly around a sweeping right turn and into an immediate left turn before continuing on in a nearly straight line. A minute later it came to a stop before turning to the left again. Try as he might to keep track of the left and right turns, Tom soon became disoriented.

Their ride came to an end fifteen minutes later when the van came to a sudden stop and they heard the sound of the door being opened.

Both boys were pulled upright and out onto a sidewalk, marched a few yards to what sounded like a rusty garden gate being opened, and then marched across rough and uneven dirt and rocks for a few moments.



“Sit!” came a harsh command in a foreign accent. Tom and Bud were spun around and shoved down onto what felt like a cement bench.

“Not move!” the same voice commanded. The sound of several people walking away could be heard, and in seconds all they could hear were the background noises of the city.

Speaking through his nose, Tom asked, “Are you okay?”

“Uh-huh. You?”

“Yeah. My mouth is held shut. Tape I guess. You?”

“Same.”

“That’s enough, you two,” came a more cultured, American voice from behind them.

Tom recognized that voice. He sat stock still not wanting to give anything away.

His tape was ripped from the bag and it was yanked from his head, roughing up the end of his nose.

Blinking, Tom’s first thought was Bud. The flyer had just been uncovered as well and was moving his jaw around.

Both turned around to look at their captor.

“Hello, ex-Commander Roberts,” Tom said through gritted teeth. “Image my surprise at seeing a turncoat like yourself here and involved it in all this!”

“You quiet!” came a gruff voice. Tom turned a little more and found himself face-to-forearm with another man. The voice spoke of intended evil, but it was the tattoo on the man’s arm that sent icy shivers down his spine.

Finding his voice, Tom muttered, “You must be Abdul.”

The man responded by cuffing Tom across the right cheek.

“That will do, Abdul!” Rik Roberts hissed.

“I don’t suppose you would be willing to be like all the villains in those spy movies who brag about everything they’ve done and pointing out the top secret, this explodes everything, lever to us,” Bud inquired.

Roberts laughed. “No. But I’m sure your smart friend here can figure it all out. Go ahead, Swift.”

“Not much to figure. You’ve been either an easy purchase by the terrorists or have long been a mole in the Navy. You knew about the invisibility project, got four other low-class agents-for-sale to get assigned to Enterprises, and waited for the opportunity. Those

four were expendable so you or Abdul here got rid of them.” He was about to add that one survived, but held his tongue.

“Good. For a kid you are pretty clever. Not so clever that you didn’t walk into my trap, but clever enough.”

“Trap?” Bud shot back.

“Certainly. You have been spotted on the streets for a couple of days so I arranged to have the car get seen enough to entice you to remain in the area. It took a few hours but there you were and now here you are.”

“What do you want from us? Information?” Tom asked.

“Want? Why no. In the words of a famous movie villain, I don’t want you to tell me anything, I want you to die!”

With that, first Tom and then Bud were stuck with a needle to their necks, both of them suddenly finding it extremely difficult to move.

“Okay. I *will* tell you something,” Roberts said. “You have both been given a clinical paralysis drug, a neuromuscular blocker. It will pass through your systems in about twenty-four hours. Between now and then you will be taped down to these two benches with the hot sun beating down on you. I suspect that you will become dehydrated before nightfall, and the sun tomorrow, promised by Channel 4’s weather woman to be ‘a scorcher,’ should finish things.”

A minute later both boys had been trussed down, their hands taped in front of them.

Abdul gave Bud a sharp kick in the side, making the flyer short of breath for a moment. Soon, he and Roberts could be heard leaving, their footsteps disappearing in the background.

As they lay there, Tom sought to discover if he had any mobility. Minutes later he gave up and was about to despair when he heard something.

“Skbrrr. Nod perlzide. Msssd vnn. Gmme mnnut.”

With joy Tom realized what Bud’s message had been. He had said, “Skipper. Not paralyzed. Missed vein. Give me a minute.”

He wanted to reply, but could not.

Time passed by and the sun that had been mostly overhead was now disappearing over the edge of a nearby building.

*So much for sizzling in the sun,* he thought.

After what must have been two hours a shadow crossed his face. He had been asleep. Looking up he saw the face of Bud

hovering over him.

“Notta worry, Tommmm. Got free ‘n called Hrlan.” He sat next to the inventor and slowly started to unwind the tape. First Tom’s hands were free and then his upper body.

Sirens could be heard out on the street. A few had raced past in the previous couple of hours, but these seemed to be stopping. Running feet and a shout of, “There they are!” came from the direction of the street.

Tom wept with joy.

Bud muttered, “Bout time.”

The next morning Tom awoke in a hospital bed with Bud resting in another one next to him. He cleared his throat and tried to speak.

“Yo, Bud. Don’t know what I’ll do to thank you for getting us out of this.”

Grinning, the flyer replied as he swung his legs over the side of his own bed, “Nothing to pay back. You’ve saved my bacon more times that I’ve got fingers and toes. Luckily that Abdul monster is a lousy shot. He got enough of the drug into my neck muscles to paralyze my upper arms and neck but not the rest of me. I used the little emergency transmitter in my belly pack. Also lucky they didn’t think to take those.”

“I don’t think they realize what they are for, flyboy. That still puts us one up on them.” Tom realized something was on his nose and raised a hand up to feel at the bandage.

A sharp knock on the door interrupted him. Harlan poked his face through the door. “Care for a visitor?”

He took the one and only chair in the room asking them how they were doing.

Both said they were fine, and Tom quickly told him about Rik Roberts, Abdul the Righteous, and how the “now you see us, now you don’t” of the coupe had been part of a plan to capture and kill Tom and Bud.

“Along with all the other charges, former Navy Commander Roberts will face the death penalty for his actions. He’s not just a traitor, but a kidnapper, would-be assassin, part of a murder for hire conspiracy—at least three counts of that—and about ten other crimes.”

“If you catch him,” Bud said.

“When, Bud. It’s going to be *when* he is captured if not outright

killed in the process!”

## CHAPTER 16 /

### THE PHANTOM MENACE

THE NEXT day, Tom and Bud's last in New York City, they and Harlan met with Agent Evans. He had many questions, but first and foremost he was livid that Tom had even come down without, as he put it, either notification or permission. Worse, that they had "allowed" themselves to get kidnapped.

Un-cowed by the large and angry man, Tom looked him in the eyes and stated, "At least we made some progress. All you and the FBI seem capable of is retrieving the dead bodies of your own bad agents!"

Harlan had to turn away so the FBI man didn't see the huge smile that broke out on his face.

There was no good come back to Tom's statement and so Evans sat down heavily, wiped his right hand over his face and let out a snort.

"Fine. What do we do now?"

Knowing how counterproductive it would be to continue antagonizing the agent, Tom softly replied, "I believe the best thing would be to outfit you and a couple of your best agents with our new detection system." He explained the basic concept.

A few seconds in, Evans' body language changed. The scowl disappeared. He leaned forward and was very attentive to what he was hearing, nodding several times.

"Incredible," was all he said when Tom finished. There was a pause.

Finally, Tom added, "I intend to let you have the two sets Bud and I have been using starting right now. Perhaps you and another trusted agent can catch sight of the coupe and give some sort of chase."

He had wanted to put some emphasis on the word "trusted," but had veered off that course in time to avoid ruining the atmosphere of cooperation that seemed to be building.

"Thank you, Tom. And, I do have a *trusted* agent to work with. The man has been part of my core team for fifteen years. Just as I suspect you would trust Bud here with your life, I trust my partner and best friend."

Harlan handed over the two bags and glasses. Tom showed Evans how the system worked and suggested that he and anyone

else using them practice before going out with them.

“The first thing you will do is either fall over something, or your stomach will do a little flip. That goes away in a few minutes the first time out, and then your brain sort of adjusts to it within maybe ten seconds any time after that.”

All this conversation took place in Harlan’s hotel room. Tom and Bud excused themselves to go pack while the other two had a deeper, agent-to-agent conversation. When he caught up with them, Harlan only had one thing to say.

“Sander Evans is so determined to make this whole theft escapade right that he is going to run himself into the ground if it takes more than another week.” He shook his head, sadly.

“Then, let’s get back home and I’ll see if there is anything else I can do to help him,” Tom said.

Doc Simpson, who had obviously been told about their capture and drugging, insisted the two young men come by for a checkup.

“You both seem to come out of these things fairly well. I do have to tell you that both of you are slightly dehydrated. I can see it in your eyes and the pallor of your skin. Please, please, please go back home as early as you are able today. It’s noon-ish. By two? Anyway, drink plenty of water, and take several of these right now, again tonight and tomorrow morning.” He handed them each a small pill bottle.

“What are they?” Tom wanted to know.

“Those,” Doc said pointing a finger at Tom’s bottle, “are mineral, vitamin and electrolyte supplements. Each one is the equivalent of a bottle of a really good sports drink, but without the sugars and other crud that make those nearly useless except for working athletes. Three now and two the other two times. There’re extras so keep them around in case I tell you to take more.”

Tom drove Bud to his hangar office before heading to the large office in the Administration building.

The flyer stayed around only an hour before driving to the Communications building to see Sandy and then to go home.

Tom, on the other hand, didn’t leave until nearly normal quitting time. He had numerous improvements for the detection glass system to make notes and a few diagrams for.

Bashalli pulled into the driveway just as he was opening the front door. She shut her car off, jumped out and practically jumped right into his arms. But, a moment later she stepped back, looking into his face.

“Oh, my, Tom. You look so terribly tired. Come inside, take the pills Doctor Simpson gave you, and let me get a hot bath going for you.” She took his hand and led him inside.

“So, Doc ratted on me?”

She nodded. “Yes. He told me that you did not specifically forbid him to do so, and so he simply asked that I make certain you had a stress free night, lots of water, and the pills he gave you.”

Twenty minutes later he was lying in a tub filled with steaming water and bubbles. Bashalli came into the room and sat on the side of the tub.

When he asked her, she admitted that Doc had not told her why Tom would be so tired.

“Okay. Another honesty time, I guess.” He told her about the kidnapping, their lucky escape and tried to put a “it wasn’t all that much” spin on things. She knew better, but chose to say nothing.

Stroking his hair, she asked if the trip had been worth it.

“Sort of. At least we know a couple things for certain. That former Navy guy, Roberts, is in this up to his eyeballs, the terrorist, Abdul the Righteous is number one on my list of who it was that tossed me out of that big rig, and the coupe is still right there in Manhattan.”

At the mention of the Iranian, Bashalli’s right hand flew to her face and she bit her index knuckle.

“What?” He sat up suddenly splashing her right leg. She didn’t notice it.

“I have heard that name before, Tom. Abdul ben Tsadik. Right?” When he nodded, she said, “My father and Moshan were talking about the ongoing situation in the Middle East several months ago, and that name came up. They both spat to the sides and said they hoped he is long ago dead. But, he is not, is he?”

“It doesn’t appear that he is, Bash. He’s the one who caused both Bud’s and Sandy’s accidents last month.”

With tears brimming in her eyes, she told him, “That horrible man used to be called the Phantom according to father. He would disappear for long periods of time, then come back and strike. You must promise me you will be more than careful.”

“I promise. Now, I need to get out before I melt in here.”

He stood, with her assistance, and wrapped a towel around his waist.

She told him to get into his pajamas and at least onto the bed if not in it. “I will bring your dinner up in about ten minutes. And water!”

As they ate, Tom told her about the sightings. “If you hadn’t helped me see what I was missing, I don’t believe we’d be any closer. Now, we know how to see the car—well, a little bit—so hopefully with more of the detector systems in place in a few days, we should be able to find where they hide the coupe.”

Bashalli looked a little sad, so Tom asked her why she wasn’t happy.

“It’s just that if I had not, as you call it, helped with my suggestion, then you would not have developed those glass things, you and Bud would not have gone to New York, and the two of you would never have been attacked!”

Tom set his plate to one side and took his wife in his arms. She snuggled into his shoulder. “This makes me feel safe, Tom. I only wish I could make you a giant shoulder to keep you safe.”

The next morning, refreshed and feeling as if the extra water and minerals were doing their best, he arrived at the office just before eight. At nine he called for a meeting between Arv, Linda and Hank Sterling in the large office.

“Last night I was thinking about a lot of things, but two came to the front.” He turned to Hank. “Were you able to come up with anything along the lines of Chow’s camera strips?”

Hank shook his head. “Technically, a piece of cake. But when I checked with the City they said absolutely not. I couldn’t tell them why we needed to place them at all points of exit and they wouldn’t talk to me after that.”

With a nod Tom looked at Linda and Arv. “The glasses work as well as can be expected, and I still want you to go ahead with the order I gave you yesterday for a dozen more as soon as you possibly can make these changes—” he handed Linda his set of notes, “—but after several days of tramping around I have to believe there must be something else that could be better. I just have to find what that is.”

“How about *we* find what it is?” Arv asked. Hank and Linda were nodding their agreement.

“Good. Us. The four Musketeers, or something like that,” Tom told them with a wry grin.

Of all the things he was able to relate to them, the one that garnered the most interest was the coupe now not instantly going invisible; it was taking several seconds for the process to complete.



“I think the question is, is this a byproduct of some technical fault, a phenomena we have to expect any of the Telejectors to experience over time, or could it simply be a computer or programming issue?”

Nobody had an answer to that.

“Okay, then I had a thought on the way in this morning. It is going to involve using the TruStealth technology to help find the *InvisiCoupe*.”

He outlined an idea they all found to be incredible. In its simplest form he intended to outfit one or more drone aircraft with their own invisibility shields, fly them over the city to travel up and down major avenues and streets above any utilities but below roof levels.

“The issue is what do we use to try to see the coupe? An adaptation of Arv and Linda’s detector system? Let the onboard computer decide what it is seeing and then follow it? Or, do we need something else?”

That was another question none of them could answer.

“Well then, I plan on trying it first with the current system, but I want everyone to be thinking and experimenting with something better. Hank, I’m going to need your hands and brain to do the outfitting of the drone. I’ll take care of getting the aircraft itself.”

Tom placed a call to the Construction Company and spoke with Jake Aturian about commandeering the newest Attractatron mule.

The basis for both the newest ring of drones now encircling all Swift properties as well as the outer space protective system keeping space debris from striking the Earth, the mules had the ability to fly as slowly as needed, and hover, which is what Tom knew he wanted.

Once the man heard Tom’s reasons he promised to have it trucked over in two days. “Just as soon as I can get the shells out of the vacuu-form equipment and we get the repelatrons installed. I’ll leave the rest out other than the piloting computers.”

Tom told him that was precisely what he hoped to receive. He hung up and told the others the news. Hank offered to shepherd the new shells personally.

After they left his office, Tom went down the hall to his large lab. He might normally have gone to the solitude of the underground office but there were some things he wanted to get into his notes program as quickly as possible.

An hour later he sat back and looked at what he had written.

With two sketches he made on paper of potential circuit changes to the SuperSight system plus a new type of filtering system for light waves, he now felt he had something to—at least—base the next detector on. A detector that would defeat his invisibility invention. He hoped.

But, it was a detector he knew he could quickly destroy once it worked so that nobody else might duplicate it.

He returned to the office to make a few phone calls but had time for just one.

About the same time he was hanging up, Harlan rushed past Trent's desk and slammed through the office door. He was nearly out of breath, something given his heart condition had Tom immediately reaching for the phone to call Doc Simpson about. Harlan held up a hand to stop him.

“No time, Tom,” Harlan wheezed and took a deep breath or two. “Big troubles down in the City.” He sat heavily in one of the conference area chairs while Tom jumped up to get him a tall glass of ice water, also bringing over the pitcher in case he needed a refill.

He drank the first glass and let Tom fill it again, drinking half of that before taking several deep breaths. “I'm okay.”

“Big troubles?” Tom asked by way of reminding his Security man of how he began the conversation.

“Right.” He took another sip, pulled a small vial of pills from his jacket pocket and placed one under his tongue. “Nitro pill. Little pain, but it'll go. Anyway, there's been a major bombing in the City. Nothing like the World Trade Center thing, but the new Fort Freedom a couple blocks from the new U.N. building is now rubble.”

The Fort, long a part of the U.N.'s military wing, had decided to move to new quarters since the U.N. was building their new location between East 38th and 42nd streets. The original U.N. building had long ago been found wanting as far as office and other space. The new building would be forty percent larger and allow for modern security precautions to be more easily undertaken.

The old building was to be retrofitted to be only office and meeting space for many of the smaller contingents from recent member nations.

A military force had long occupied half of a building next door that also acted as a hotel for visitors.

Their new facility between East 35th and 36th had been nearing

completion of the building's shell and was due to be officially commemorated in another month.

"What happened?" Tom asked.

"The guards had just finished their walk around of the building site when they heard a noise at the gate in the fence. With nothing inside it had been determined to simply hire a private company to keep an eye on things. Anyway, they found that the gate was open, and they were about to call police when they heard a car race past them, squeal around a corner, and go away."

"It disappeared?"

Ames shook his head. Tom knew what was coming.

"It was already invisible, Tom. It might have been half an hour before sundown, but there was enough light to see that they couldn't see anything except for the dust the tires were kicking up. But, before they could make the call the building blew up."

The inventor was stunned. "Everything?"

"I don't really know. It happened just twenty minutes ago. The entire city is in a panic about it. So far the rumors are running from a gas leak to full-scale invasion by all the terrorist nations and organizations of the world."

A full day passed before Harlan, now much calmer, came back with a report. Tom and Damon were in the office.

"I have, in case you didn't catch it on the news last night, photos of the damage. It's pretty significant—more than sixty percent of the building came down—but it was property damage only. Nobody hurt or killed. The police investigators are pretty angry that the FBI has impounded the night watchmen. In the absence of facts, they have been announcing that this was not an international terrorist act, that it was some homegrown nutcases with a grudge against either the U.N. or the construction company and that they most likely drove a delivery van in filled with TNT earlier in the day."

"Do they realize how foolish they will look when the truth comes out?" Tom asked.

"Will it? And, will it help any if the truth does eventually come out?"

After thinking about it for a moment, Tom shook his head. "No. I guess not. But what is being unofficially talked about?"

"We don't know right now. Everyone is tight-lipped down there. My friend on the police force there has given me all he's heard. I asked our explosives experts to try to determine how much it

would have taken to do the damage the photos show.”

“And?” Damon prompted.

“There are a couple scenarios, but the most likely is they loaded about five hundred pounds of TNT or dynamite into the car, took it there, shoved it out and detonated it by remote control as they drove off.”

Tom was shaking his head. “That doesn’t fit the facts, Harlan. For one, to get five hundred pounds of explosives into the coupe would mean pulling out the front passenger seat and filling that area plus the one and only rear seat space. That means a single man would have to drive, unload, get back in, drive off and push the button—unless it was on a timer. How long between the time the security guards heard the gate and when the car drove back out?”

“About two minutes,” he replied.

“Okay. Since the car doesn’t have a roof rack to pile things onto, and we never outfitted it with a small *InvisiTrailer* to pull along behind, I think this had to be a two-man job. That would leave room for half of what they believe might have been used. Not sufficient for this level of damage. That,” he said looking meaningfully at Harlan, “tells me they were using something nastier and stronger than sticks of dynamite.”

“Care to hazard a guess?”

“Well, Harlan, something like CL-20 or one of the newer derivatives, at least if it is domestically produced. A fifty kilogram block might cost in the neighborhood of thirty thousand dollars—if you could get anyone to sell you that much—and would have the stopping power of at least twelve times that much TNT.”

“What else do I need to know about it?” Ames asked.

Damon picked up the narrative. “It was first produced way back in the nineteen eighties, Harlan. It was more stable than most plastic explosives and certainly more powerful. I believe it was first thought to be a replacement for black powder in artillery shells. I imagine the use of three to four ounces of it versus a hundred pounds of black powder to shoot off a five-inch round looked pretty appealing.”

“Dad’s right. It was produced at the request of the Navy, so their ships—” Tom trailed off. “Navy. Damn! Commander Roberts. The Navy. Of course that’s probably how they got hold of it!”

“I’ve got to make a call. Can I use your phone?” Harlan said with a groan, pointing to Tom’s desk.

“Sure.”

A moment later Harlan was speaking to someone, identifying himself and asking to be connected to Agent Evans.

“Yes,” he said to whoever was on the other end, “United States Secret Service number OPX-51287-HA. And, before you go running down the hall to see if it means anything or if you have to cooperate, let me tell you that *anything* Secret Service trumps the hell out of the FBI. Get Evans on the horn right now!”

He turned and grinned at Tom and Damon. Harlan Ames had mastered the art of sounding furious and about to explode in what would make someone’s life eternally miserable while still keeping a smile on his face.

It took two minutes but he finally perked up. “Evans? Harlan Ames at Enterprises... Yes, that is correct. I am also fully entitled to highest priority Secret Service designations. Listen up.” He went into telling the agent what Tom and Damon had mentioned including the possible connection between Rik Roberts, the Navy, and the high explosive.”

He listened, taking the receiver away from his ear for a moment. “Right back at you, Evans. Of course you know about how Roberts and that Abdul fellow kidnaped Tom and Bud Barclay, so we all know they are probably still in the City, somewhere.” He listened for another minute. “What do I think? Personally, this smacks of another test, like the two drones they flew into our airspace. One was relatively harmless and the other had nuclear materials in it. You make the connection.”

With that he hung up.



## CHAPTER 17 /

### REALIZATION AND SET BACK

THE NEWS reports over the next two days were a confusion of guesswork, outright falsehoods, and a parade of supposed “experts” in the field. What field that might be was never mentioned.

With disgust, Tom turned off the television that evening. Bashalli had been concentrating on something she was attempting to knit—Anne Swift had spent many patient hours with her more than a year earlier, and she had been keeping at it. Unlike Sandy who got the same tutelage but gave up after her first few missteps proclaiming that knitting was impossible and anyone who could do it was probably using witchcraft.

Bashalli looked over to her husband.

“Is any of that true?”

“Probably not, Bash. For one, they all seem to have disregarded the fact that there are many other explosives than dynamite or TNT. And, that woman on the Continental News Channel who just said she believes it was the work of rogue construction workers who have been wrapping camouflaged explosive tape around everything inside that building from the very beginning is just plain ignorant!”

Bashalli’s forehead crinkled. “Is there such a thing as explosive tape?”

Now, Tom laughed. “No. There is what’s called detonation cord, or det-cord, that comes on huge rolls. It’s the stuff that looks like nylon rope demolition teams wrap around girders and support columns to cut through them so the structure can sort of fall in on itself.”

“Is it impossible the bad people might have used some of that?”

“Yes. You see, there is far too much scattering of materials *outwards* at the site. Det-cord does blow things apart, but in little pieces that don’t go all that far. At the Fort building, chunks of concrete and steel were thrown fifty, eighty and even over one hundred feet. That takes a concentration of high explosives inside.”

Bashalli went back to counting stitches on her needles.

Tom picked up his tablet computer and called up some technical specifications for the SuperSight system. Part high-powered telescopic camera and part computer-based amplification

system, the original one mounted in the belly of the *Sky Queen* could—from 50,000 feet up—bring something the size of a phone book into close enough view to tell what it was, but not enough to read anything on it.

That system had spawned the Digital BigEyes—a portable version—later that same year. While they were only meant to bring a person-sized object into close view from altitudes of a few thousand feet, the process of miniaturization for them had later allowed the larger system to be downsized. Now, rather than being nearly the size of a chest freezer (plus the separate monitor and control board) the computers and lens were barely larger than a three-drawer filing cabinet.

Tom was looking for ways to lay the guts out so everything fit inside the drone's body. The CAD application he was using let him grab individual components, like circuit boards and power supplies, and move them around. All connecting wiring grew or shrank as needed while a “functionality checker” sub-application told him if anything was getting out of proper specs.

Bashalli set down her work, came over to sit on the arm of his chair and looked at the screen.

“All of that is going to fit inside one of the donkey drones?” she asked.

“Umm-hmmm,” he absently mumbled. Then, he stopped, put the tablet in his lap and looked at her. “Donkey drone?”

She laughed. “I wondered if you were paying any attention to me. Now, I know.” She got up and skipped across the living room and into the kitchen, letting the door close behind her. Very soon after that, Tom heard her singing a recent hit tune.

With a grin and shake of his head, he went back to his work, but her question haunted his thoughts a little. With the computers necessary for the TruStealth system taking up more than half the internal space, and the Telejector camera/emitter units making much of the other space irregular, he was going to need to move more things around than he originally thought.

Two hours later, Bashalli kissed him on the forehead and announced she was going to bed.

He looked at the clock readout on the screen and saw it was nearly eleven.

“Give me five minutes and I'll be up,” he told her.

“Inventor minutes or real minutes?”

He chuckled. It was a legitimate question as “inventor minutes”



could easily turn into hours of actual time.

“Okay. Ten real minutes. I’ll set a timer,” he promised bringing up that function.

“See you in twenty,” she said as she climbed the stairs.

Because of the shape of the drone, Tom had already placed four Telejector units around the perimeter of the body as well as four on the upper side and the same on the lower side. He was wondering if he might need to add another to the bottom and top when his alarm went off.

With a sigh and a shrug, he saved what he had been working on, shut down the computer and went to bed.

But he was back downstairs when he woke up at two with the realization that the “weak point” in the emitters was not going to be the top or bottom, but from the sides. The shape of the drone was going to require as many as four more TruStealth units.

That was going to be a huge issue with the computers. As it stood, they were just about at their limit for processing data with a dozen units to feed. Sixteen would stretch them too far.

If he didn’t need to account for the SuperSight equipment he could just use two sets of computers for the TruStealth system, one for the perimeter and the other for top and bottom.

A thought occurred to him, and he called up a moveable measuring graphic. He also pulled over a pad of paper and began writing down some figures.

Fifteen minutes later he switched the tablet to a scientific calculator app and started to input the numbers he had written. A smile crossed his face.

“You have found something good?” Bashalli’s voice came from the stairway. It startled the inventor. She was sitting on the third step, elbows on her knees and her chin in her hands.

“Bash! How long have you been there?”

“Oh, twenty minutes. I did not want to bother you. But, have you found something good? Your face says so.”

“Yes, I did.” He told her the reason he got back up. “But, as it turns out I can get by with just two of the units on the top and bottom and eight around the outer edge. That keeps it at twelve. I can do it!”

“That’s nice. Good night... again.” As she headed back to bed, Tom made a few notes and followed her.

By the time he arrived at Enterprises he was convinced that the

mule was going to be capable of holding everything it needed.

He called Jake Aturian at the Construction Company.

“Jake. It’s Tom. Say, I had to reconfigure a few things internally for that mule you are building. Is it too late to get a couple of changes made to the cutouts in the body shell?”

“The two shell halves are in the vacuu-form machine right now, Tom. I can stop them from putting those into the hardening oven. Hang on a minute—” and a click told the inventor he was on hold.

Three minutes later, another click came, followed by, “Tom? We’re okay. Hank came over to personally supervise things and had pulled a couple of the layers back off to realign them. They hadn’t flooded the tomasite polymer in there yet. Let me transfer you over so you can tell him what you need.”

“Thanks! I owe you one.”

“You owe me more than one, Tom Swift, but that’s okay. You’ve provided me with more success and satisfaction in this job than I can ever repay. Bye.”

When Hank came on Tom told him about the perimeter orientation of the extra emitters.

“Oh. That makes sense. Can you shoot the CAD stuff over to me? I was going to laser-cut all of the original places in about an hour, so I’ll just wait and change things to meet your needs.”

Tom promised to have the new details sent over within thirty minutes. Once he finished that, Tom called Linda.

She offered to come to his office, but he suggested he come to her. “See you in about fifteen minutes.”

When he arrived she explained that Arv was in town running an errand.

“No issue there. It’s you I need to talk some things over with,” he told her. “I reviewed all the video data from the first hangar testing of the coupe as well as what we did with Arv’s little replacement model. I might have seen something, but I need a second pair of eyes and another brain to look at this.”

She stood there, very curious, while he sat at her computer and called up a special file with more than a dozen video segments.

“Take a look at this one first.” He started a video showing the original *InvisiCoupe* as seen from the robot camera running inside of the track layout.

“Was I supposed to see anything strange there?” she asked.

“No. That’s exactly what we hoped for. But take a look at this

one from overhead.” He called up another video. “Watch the right side of where the coupe is supposed to be.”

He ran the two-minute video clip twice for her. The initial playback had her shrugging, but the second time she put her hand on his forearm suddenly. “Stop!” she cried. “I see it!”

Tom smiled. He was certain it was there, but needed her verification.

“What are you seeing?” he inquired.

“Well, video garbage, I think. On both sides of where the car would be. But that should be impossible. *Shouldn't* it?”

He nodded. “Let me play you the same clip but using the little model. He did.

“It’s different and on just the right side,” she said in an amazed voice. “What is it?” Now she looked at him, almost imploringly.

“Do you recall that you and Arv discovered that Hank had made a modification to the coupe’s rear shell? That he had moved panels out, I think it was under ten millimeters, but move them he did.”

“Right,” she said slowly.

“I finally figured that the simple act of moving those panels put the carefully-planned alignment of the Telejectors ever so slightly off angle. And that,” he pointed to the screen where he had freeze-framed the model, “we see on just the one side Arv did not fix, but not the other that adheres to the changes in alignment the variation Hank ended up with was set to.”

He waited while she mentally digested what he just said.

“Is that going to mean that anything we do to a ship that rolls and tosses will have the same issue?” she finally asked.

“No, and that is because we will install them at precise angles. Unless the ship gets sideswiped and the hull bent, ships will have no issues like this. It also helps that those Telejector units will be showing their output ten feet away from the hull, not the six inches or so on the coupe.”

Linda practically begged to be allowed to look more deeply into this new path. Tom agreed and gave her a file with several screens of notes he wanted her to investigate. She agreed to give him preliminary results the next afternoon.

When he reviewed them, the news was good.

The simple offset of a few millimeters on the side panels of the red test coupe was enough to cause ghosting images when certain light wavelengths were available. Because only one side of the

smaller model had remained so changed, only that side gave off the ghostlike images.

For the two different tests, the high-tungsten arc bulbs along the hangar ceiling added the necessary light waves to make the images appear.

Now, it was going to be a challenge to see if there was some way to coax those same wavelengths out of sunlight. If not, there was little hope that this method would prove to be the ultimate answer.

“The nice thing is, as long as we can find a way to detect those light frequencies out in the open, and then process them in near real time, the drone can actually follow the coupe. We might truly be onto something,” he told the Asian woman.

“I honestly still can’t say that I fully understand what it is we are seeing,” she admitted.

“Well, I guess I’m taking a shot in the dark at this, but I think the computer program is looking to get data from a very precise location and angle looking down. Because of the slight difference, the offset if you will, the computer is either over- or under-compensating for the angular change and starts tossing in spurious video information.”

It seemed as good an explanation as was going to be available for the time being.

Linda raised a tentative hand. “One more. Will the drone have the same ghosting problems as the coupe?”

Shaking his head, Tom replied, “No. And it comes down to proximity. The coupe and model have the ghosting problem because they are so close to the ground. I figured that another five feet up and we would never see a thing!”

Tom contacted Agent Evans to give him the partial news.

“All I need to know is when, Tom? When can I get my men out of those glasses and back into real action?”

“We are still a week away, I’m afraid. Have your people spotted anything?”

“We had two brief hits in the past two days. Glimpses as the car went through intersections. That sort of thing. We’re pretty certain they are still here. On the plus side, no more bombings, but that makes me nervous. Like, they are working on something much bigger. You know what I mean?”

“Yes. I do.”

After hanging up, he called Harlan to report the sightings and

also the progress he believed they were making.

“I hope for two things, Tom. First, that this is good news, and second, that this can come to a conclusion quickly. I haven’t wanted to rattle you or your dad, but Admiral Hopkins is jumping around like a frog on a hotplate. I keep assuring him that this is remaining out of direct press view, and I said I believe the misinformation the newscasters have been piling up all around the U.N. building bombing is a great diversion.”

“But, he wants me to hurry and get that coupe back.”

“Yes, he does.”

“Should I call him?”

Harlan had to think a moment. “I’d say that’s a decision between you and your dad. But, keep me in the loop, please.”

When Tom went to the large office, Damon was sitting at his computer, looking at some accounting figures.

“Oh, hello, Son. What’s up?” He stood up and stretched.

Tom told him the basics of his and Linda’s research. “The thing is, it is really tough to describe. Come on over to the conference area and I’ll bring up the videos so you can see for yourself.”

He showed his father what he had shown Linda. For his part, Damon let out an appreciative whistle.

“Thanks for that, Dad. But let me also show you what I worked on yesterday and this morning.” He called up a longer video, this one obviously taken out of doors. The model car below was driving along one of the traffic lanes on the far side of the building complex where there were lane markings and sidewalks.

“Bud went up in a Wasp and took the video. That’s the little model Arv and Hank built. If you look closely, you can see the ghosting is not there in regular sunlight. At least, with the outside light, not until I made this adjustment to the filtering.”

Some numbers along the bottom of the screen began to change. As they did, the picture altered. Greens became pale blue while grays took on slight reddish hues.

“Did you notice that as I switched to viewing light from the low seven hundreds of nanometers up through about eight hundred twenty that a small false image appeared to be floating next to the car?” Tom asked as the video concluded, looking at his father’s face.

Damon shook his head. “No. I didn’t, but then I didn’t know what to look for. Can you show me that again?”

Tom replayed the video.

As the father and son watched the invisible coupe model, or at least where the small crosshairs indicated it was, there was a slight flicker as the car drove past the curb. In fact, now that he knew he should be looking for something, Damon's eyes grew wide.

"That's... well, that is incredible!" he declared. "I could just see that small ghost image of the curb that looks like a full foot away from the actual one." He looked at Tom. "How is that possible?"

Tom smiled. "To the best of what I can figure there is a small band of nearly visible light that shows up that Achilles heel I've been looking for. Now, before I go on I have to say this isn't going to be a problem out at sea. But, it is going to help us find our missing coupe and hopefully put Rik Roberts and those terrorists behind bars!"

He explained that the down-facing camera on both the model and the full-size coupes was just too close to the ground. They had to be slightly aimed out from the body so as not to pick up any of the actual car. This meant the picture going into the computer had to "bend" the image down—to distort it slightly—to look as if it were pointing absolutely straight down. Then, and as Tom had programmed it for the test vehicles, the computer was supposed to electronically delete the farthest part of the image.

"It does it to a degree, but not enough. I'm thinking that as careful as Arv was in creating the camera and lenticular lens piece, the very nature of them being all in the same clear piece means that a ghost image may be coming from the closest lenticular angles and it manages to get into the picture, so to speak."

Damon looked at Tom in amazement. "But, aren't you filtering all that out?"

This brought a new grin and a little shake of his son's head. "I never took ghosting into consideration. I think what we are seeing is the imperceptible difference between real time and the projected and processed image—which are only a few dozen milliseconds apart—showing us the processed image as well as a tiny ghost of real time."

Mr. Swift had to think about his for a few moments.

"Okay," he started slowly, "but how is that possible? Isn't everything going out through the projectors is fully processed?"

Tom now firmly shook his head. "For the test versions I had Linda allow a tiny bit of actual video to be passed though the system. That way, we can account for the fast movement of the car in relation to the ground. I originally computed that the system

could go fully processed only up to about forty-five miles per hour. That's enough for most ships, but not a speeding car." He grinned.

His father grinned back at him. "So, does this mean you will be able to detect the stolen coupe?"

"I'm going to create a special program and filter to go on a modified version of my SuperSight. Then I intend to mount that on a modified version of our latest Attractatron mules. Just repelatrons to keep it flying with no Attractatron. I'm using all that space for the camera and computer system, so I won't be able to pull it up off the pavement but I'm certain that I can fly the things autonomously over Manhattan low enough to be out of airspace and undetectable from the ground, but within range to get a good look at things going on at street level. Anyway, take a look at this other video."

The new one showed the model coupe as it drove over some of the lines on a taxiway. There was a flash of the line appearing more than two feet from the coupe. Tom reversed and froze the video so his father could get a better look.

"Does that mean anything the real coupe drives over, such as lines or even a crushed coffee cup, are going to appear like that?"

Tom nodded. "I think so, but we need more testing. I only saw that today and after at least five viewings of the video." His face changed suddenly.

Damon looked at Tom and commented, "That should be good news. You look slightly less than thrilled right now. Trouble?"

"Possibly. You see, Linda and I both believe that the additional equipment necessary to view and process the visuals is going to be too much for the mule to carry. Not weight wise, but it will put things at about fifteen percent over the available internal space."

He looked at his father. "If I can't figure a way to carry it, the whole plan may be doomed before getting off the ground!"





## CHAPTER 18 /

### RUINING THE TruSTEALTH PROJECT?

THE INFORMATION was not as potentially devastating as Tom might have believed. He stood up and began to pace.

Smiling slightly, Damon pointed back to the comfortable chairs. “I might have a notion about that,” he stated as they sat back down. “For starters, how close are you to the repelatron lift limits?”

“Not close at all. In fact, probably well below thirty percent. Why?”

Now openly smiling, Damon picked up the remote for the giant monitor hanging on the wall opposite them. He pressed a few keys before finally bringing up the opening page of a file stating it was for: Project Pentagon Patrol.

He gave Tom a second to read that, then pointed the remote and pressed the **ADVANCE** key causing the cover page to disappear and be replaced by a page of text. Five more times he clicked through such informational screens until he arrived at a graphic.

It took just two seconds before Tom’s jaw dropped.

On the screen was a sketch of a mule/drone in “exploded view” showing the upper shell half, the lower shell half, but between them was an eight-inch ring that perfectly matched the perimeter shape.

“You’re making a thicker mule without making it larger front to back or side to side?”

Damon nodded. “You got it in one. A twenty percent increase in interior space. This project, by the way, never happened because the military folks wanted us to turn these into automated gunships of the air. I refused to do that, politely of course by pointing out that these were going to be flying over populated areas—possibly even the White House—so they huffed and puffed and decided to not go through with it. If you want this, it can be yours for a one-time payment of having your wife invite your mother and me to dinner where she can make us some of those wonderful Pakistani dishes like she did this past summer.”

Sticking out his right hand, Tom said, “Oh, you can’t know how much a deal that is! Thanks, Dad!”

“There is a caveat, however,” Damon warned. “That ring plays havoc with the aerodynamics. It makes the front surfaces too blunt

and builds up a lot of air pressure pockets front and back. I might suggest, and I never got any farther than this, that you investigate giving that ring a forward-facing angle.”

“Out of curiosity, how fast was this one supposed to fly?”

Damon smiled. “They asked for five hundred. I secretly wanted to give them Mach-2, but the turbulence was going to keep it at just under five-fifty.”

“Well,” Tom stated with a laugh, “my needs are for about three hundred to get it down and back, then perhaps ten to thirty miles per hour once on its tracking mission. I think I’ll keep with the more blunt ring shape. It’ll make positioning the TruStealth units easier.”

Tom got up and hit his TeleVoc pin as he walked toward the door. As he left the office he initiated a call to Hank Sterling.

“Yes, Tom. What’s up?”

Tom told him about the forthcoming change to the drone shell.

“Oh,” was all Hank could say at first. Tom wasn’t sure if the man had become a little angry over what now appeared to be more work—and work that might have been avoided if Tom had simply told him to put the shells on hold of a day. Finally, Hank spoke again. “I was just looking at the schedule for the vacuu-form beds. I still have your dad’s specs for that spacer ring, so unless you plan on making changes to it I think I can arrange for the bed time tonight. It’ll mean shell delivery to you tomorrow morning, and I’ll schedule myself to help transfer all the internal stuff into the new shell. Will that work?”

Tom was relieved to hear no anger in Hanks voice. “It’s better than I could hope for and better than I deserve putting you through this exercise multiple times.”

“Pshaw! as they used to say. I can repurpose the two shell halves into a new test vehicle for drone improvements. I was going to run off a pair next week anyway. All I need to do is patch the holes, and that will be a cinch!”

“I’ll send over the cutout locations for the new setup. Fortunately, the perimeter ones all go into the new spacer.”

“See you around ten tomorrow. Uhh, where do you want to set this up?”

Tom suggested the Barn. Hank agreed.

By the time he got to the Barn, Tom could see that Hank and another man had been unloading the truck on which they carried the shell components and the previously outfitted lower shell

piece.

Made from lightweight materials to begin with, the top and bottom weighed just one hundred forty pounds each while the perimeter ring came in at fifty-two. The three new pieces were more awkward than heavy.

The first order of business was to attach the ring piece. Hank had created it with alignment tabs that fit perfectly into slots on the body shells. Brackets snapped into place and a bead of sealant completed the job.

With most components inside the first drone body being modular and easy to take out, Tom had decided to leave that on the truck. It was a matter of another hour before they finished and Tom suggested Hank and the other man head back to their normal duties.

“I just need to make a few connections and then prep the rest of the shell for the new circuitry,” he said. He might have said more if it had just been Hank, but the other technician was not on the need-to-know list regarding the TruStealth system or the theft issues.

“Catch you later, skipper,” Hank called out as he headed for the truck.

The inventor finished the work he intended to perform inside the lower shell before pulling a small bubble-topped cube from his pocket. He set it into the open area of the bottom shell then used a small measuring tape to put it into the center of space. Tapping the top of it, he stood back.

If this had been in a darkened room, preferably one filled with dust particles or fog or smoke, he would have seen thousands of green laser beams piercing out from the bubble and touching all areas inside the shell. In thirty seconds it was done and a flashing red light indicated it was automatically shutting off.

Tom pocketed the cube, covered the drone shells up with a heavy, lockable nylon cover, and headed back to the office.

There, he plugged a cable into a small port on the little cube and brought up a special application. Ten seconds later a 3-dimensional model of the free space inside the shell, complete with quarter-millimeter-accurate measurements, appeared on screen.

He sent the results, along with a brief note, to Linda Ming.

Pretty certain we have enough room now, but double check,  
please TS

Her answer came back two minutes later. It simply said:

Plenty!

Linda, with a little help from Hank and a lot from two other electronic technicians, excelled herself and already had most of the electronics completed by the time the drone shell was delivered to Enterprises.

Now she put herself to the task of configuring everything so it fit, leaving enough room for the SuperSight lens and receptors array that would sit in the center of the shell for best stability.

Tom spent the remainder of the day rewriting some of the software used in the outer space mule version having to do with autonomous operation, as well as merging it with many of the features of the software running the drones over Enterprises.

In the end, he was certain he had an operating system that would fly the drone as quickly as input could be processed up and down all the main streets of the City. With a very complete map program running in conjunction with a GPS system capable of six-inch accuracy, he knew there would be zero chance of collisions.

Tom, along with Arv, Hank and Linda did the final assembly of the drone. The spacer ring had allowed them to stack some equipment so more room had been left for the power pod. Not putting out a tremendous amount of heat on its own, when added to that of all the other circuitry it might have meant the inside would be toasty warm—not a good atmosphere for computers. The extra room let Tom drop in a small piezo-electric air cooler. Using very little electricity, the crystal plates maintained a temperature of just forty degrees. Along with a circulation fan and small heat exchanger, the six plates inside the four-inch-square package would keep the drone's internal temperature at about sixty-five degrees, well within a good and safe operational range.

To make doubly certain of the total safety of the drone, he added more programming to use the drone's avoidance system look farther off to see if anything was coming toward it that required some maneuver to keep clear.

He also, based on past experience, installed a transmitter that would send location information in a constant stream to Enterprises. Displayed on a one hundred-inch monitor would be a satellite image of Manhattan with the exact location of the drone at any given moment in time.

A smaller monitor would provide the same view as the SuperSight camera was receiving for anyone watching.

To test the maneuverability and agility of the drone he set

things up to have it fly a random pattern in between all the buildings at Enterprises.

He first thought to do this with the drone being visible, but decided that the speedy flashing past of the drone would be disconcerting at best and nerve-wracking at worst to anyone in one of the buildings, so he chose to do it invisibly.

The three hour test came off without a hitch (and only two reports of a strange echoing *whoosh* sound from employees walking outside. These were explained by referring to some new outside audio system testing.)

Tom and Damon contacted Admiral Hopkins to tell him what they could about the drone and that it would be on station the following day.

“I don’t mind telling you that I have nearly overdosed on antacid tablets these past few weeks, Tom. If I were a real sailor I would probably have consumed rum by the gallon as well. Please tell me this is going to work!” There was a hint of desperation in his voice.

“Admiral, Tom has had a hell of a time overcoming the nearly perfect system he is building for you. I’ve reviewed all the testing results and if anything can find that coupe, it is this drone.”

Tom added, “Sir, I realize that this all has been a terrible time for everyone, but the good news of it, if there is any, is nobody has raised a hand or spoken a word about some mysterious invisible car. I’d say the secret is still just that. Secret.”

“Fine, and I have to agree with you. There’s just one thing that worries me. Is the fact that you have built this, uh, this *viewer* thing going to mean the whole project is ruined? You’ve told me ‘no’ before, but...”

“It’s still no, sir. It was a freak coincidence that I even spotted the small gap in the system in the first place. It will not be an issue at all in anything larger. This is one of those one-in-a-billion chance alignments of all the stars and planets.”

Wishing them all good hunting, the Admiral hung up.

The next morning, the *Sky Queen* was raised to ground level and taxied over to the small hangar where the drone had been stored overnight. The *Queen’s* rear-facing hangar opened for two minutes before closing again, with nothing happening during that period of time. She moved a few hundred feet away and lifted gracefully into the sky.

“She’s aboard and tied down,” came a quick call on the intercom.

“Want me to drive while you go check our luggage?” Bud asked.

“Well, you can take the stick, but I have every confidence that the drone is just fine back there. It came in all on its own, and we’ll release it as we fly over Block Island Sound before heading down to Fearing Island. I think things will be fine without my bothering it.”

It was planned to fly a course that would take them over the easternmost tip of Long Island on the way to the Swift’s private island off the coast of Georgia.

Tom and Bud would remain there for about two hours while some equipment was loaded into the empty hangar and then return to Enterprises.

With the drone exiting the giant aircraft on schedule, invisible to the eye, untraceable on RADAR or any other means, it dropped down to about three hundred feet, headed for Manhattan, and initiated its search patterns.

There was no sign of the *InvisiCoupe* for the first two days. When this was reported to Agent Evans he groaned. “Now it really makes me think they are in hiding and up to something very, very bad!”

But, the following day the drone got a sighting. By coincidence it happened as the coupe was driving under the old High Line. A former elevated rail track, it had been turned into a garden-covered pedestrian walkway many years earlier.

The coupe went under along West 24rd Street but must have stopped. The drone did not see it come back out and its programming had it depart the area after three minutes of no further sighting.

Tom mentally slapped himself in the forehead over this. He hadn’t considered that might happen and now knew he needed to do something with the search programming to allow for a repeat.

It took another day but he was able to remotely upload new programming to the drone as it sat on the roof of hotel where he and Bud had stayed. This was the evening set down spot where a complete systems check took place every day. That evening the check included the ten-minute upload and additional testing of the new software.

The next morning Bud ambled into the shared office where he had to clear his throat to get Tom’s attention.

“Hey, flyboy. Come on in and take a seat. Give me a minute, though.” While Bud poured himself a cup of coffee and took a chair, Tom tapped out some final notes on his keyboard. Standing

up he asked, “What’s going on? You usually are up in the air or heading over to do some more car testing these days.”

“It’s Sandy’s day. I get tomorrow. Then we wait until after the weekend before there is one final day when we both are going to race the dickens out of two of the cars up and down the runways. After that I guess they go into full production.”

The inventor marveled. It was difficult to believe this much time had already passed and the first of the S-100 coupes would be driving off the line by this point the next week.

“So, is it boredom that brought you by?”

“No. Well, a little, but I had a question that comes to us courtesy of your sister. By the way, it was your father that brought her ‘into the know’ on this. I’ve been a good little pilot and kept my big mouth shut. Anyway... The *InvisiCoupe* was spotted by the drone. Right?” Tom said it had. “But it went under an overpass and stopped. How could they have known the drone was up there or that it spotted them?”

Tom sat down in the next chair. “They didn’t. It was just a coincidence. The coupe has no detector equipment in it. No video equipment, either. It just collects massive amounts of data on itself. I also can’t imagine a scenario where those thieves could manage to put together anything that might see or sense the drone. I have to believe they were making a stop just as the drone flew over them. As I said, it was a complete coincidence.”

“Yeah. I told her it would be something like that.”

“Well, then, you are to be congratulated on your instincts and thought processes,” Tom said teasingly. “Want to come to Communications to watch what’s going on?”

“Just call me Shadow.”

When they walked into the large, darkened room Bud had to stop in amazement. “Jetz! I haven’t seen this setup yet. Impressive!”

The giant screen hung on the far wall while two people sat at control panels near to the rear of the room. Closer to them, and to one side, was another monitor showing a “looking down” view coming from the drone itself. On the larger screen was the satellite map of Manhattan and the surrounding areas. As they watched, the map subtly shifted a little to keep the red dot of the drone close to the center. It was not in constant motion and did not shift again for about two minutes.

The dot was moving at, according to the readout numbers at the bottom of the screen, twenty-one miles per hour up Amsterdam

Avenue. It had just crossed 125th when the light began blinking and the drone veered to the left. Bud gasped, but Tom saw the reason. Flashing on the screen was a bright blue dot. It was still more than ten blocks away—near a school—but it was heading in the direction of the drone.

“What is it?” Bud asked in a whisper.

“You don’t have to talk quietly, Bud. That, or so my guess would be, is either a news or police helicopter. The drone is designed to give anything like that at least a five block berth. It’s just doing what it is supposed to do. See how it is now hovering?” he asked pointing at the screen.

“Yeah. And the other dot is veering the other direction. Look! The drone is going back to where it turned. This is neat!”

“It’ll be neater when we spot the coupe again and can have the drone follow it to wherever they have been hiding it,” Tom said.

“Here, here,” one of the two techs at the control panels said.

The weekend came and went and Bud and Sandy did their best to drive the two test cars into the ground, but they held up beautifully. It was expected that the Swift MotorCar Company would receive final Federal approvals by Friday and cars would begin being built the next Monday.

Even Jonas Grumby, finally brought up by one of the rail racers for a look at the facility, was impressed and eager to have the first batch coming down through his rail yard.

That evening as he waited for dinner Tom was startled by the telephone. He had been concentrating on an electronics digest.

“Tom here.”

“Skipper? It’s George Dilling. Great news. The drone has a definite sighting on the coupe. We’ve only got about twenty minutes of usable sunlight, but it’s getting up toward the very top end of the island and can’t go much further without taking one of three bridges.”

“Notify the FBI, if you haven’t already done that. I’ll be there in ten minutes!”

He barely touched lips with Bashalli as he ran from the house. On the way to Enterprises his mind raced between incredible joy and how he was going to handle the letdown if this turned out to be a bust.

His car skidded to a stop in front of the Communications building, and Tom raced inside.



Hearing his young boss enter the room, George pointed. “There! On the block next to that park. See those apartment buildings? And see that green canvas tarp? That’s the coupe! Barry, show Tom the drone footage from four minutes ago.”

When the video came up Tom gasped. As they watched the space where the tarp would appear, three men simply appeared from nowhere, one reaching back in to drag out a green bundle that they all spread over the car. A minute later after looking all around, they entered the closest apartment building.

Barry switched to the real time view. With there being no need for using the special light wavelengths the camera was switched into normal light reception. The drone was now maneuvered around and brought even lower.

They could all see the entire block, on both sides of the street, was a mass of six-story, somewhat rundown apartment buildings.

“That’s where they’ve been hiding the *InvisiCoupe!*” Tom practically shouted with glee! “We’ve got ‘em!”



## CHAPTER 19 /

### RECOVERY TIME

TEN CARS and vans converged on the neighborhood. It was the next morning and Tom and Bud had been up all night getting back to the city and connecting with Agent Evans.

In their effort to hide as far away from the city as possible, the terrorists had decided the buildings above 200th Street would keep them safe.

They were wrong. And, since five minutes after George Dilling's call, they had been under constant surveillance at street level by FBI agents and from the air by the drone.

Tom's system for seeing spurious images had been able to use the high levels of trash in the streets, and graffiti painted right on the asphalt, to spot the coupe the day before. Since then, no movement had been detected other than to see three men come out around ten at night, load something from under the tarp into a box that was shoved into the panel van and then return to the building leaving behind the hidden coupe. The van had driven off soon after, and one of the FBI cars followed but it left the area slowly and ended up on a residential island thirty miles away. It entered a garage and the FBI agents were keeping it under surveillance.

"I figured they needed to shut things down in the evenings," Tom told Sander Evans as they sat in the FBI agent's command post van two blocks away from the apartment. Bud was humming an old tune in the back seat. "I also calculated that the nitrogen pressure system to force fuel into the engine should be about empty. Even though the likely figured out how to put more gas in the tank, they might have found themselves stranded in another day or so."

The agent smiled. "Yeah. I have to hand it to you, Swift, that nobody in the agency believed when you promised you could find that invisible car of yours. And, to do it without messing up the Navy's chances to boot! Incredible. Plus, having that drone of yours hovering outside showed us which apartment they're in. Good job!"

He was about to say more when the radio in the van announced an incoming call.

"Evans."

The voice of Admiral Hopkins came over the speaker. "Agent

Evans? I'll assume that Tom Swift is with you. Is this correct?"

"I'm here, Admiral," Tom said as the agent handed him the mic. "We are just minutes away from getting back the... umm, I think they've been calling it the *item*. Whatever, we're close right now."

"That's great news, Tom. And, I've got some other great news for you. On a hunch I ordered some water coverage of the Long Island Sound. It paid off. My former Commander Rik Roberts has been captured trying to get out of the area using a private yacht parked on something called City Island up there. Boat's registered in Southern Florida and owned by a holding company that I've been told has ties in weapons running in the Middle East. They'd moved away from the dock before we put a round of machine gun shells into their bow at the water line. She started to sink so the Coast Guard was able to get to them and pull Roberts out of the drink and send him to the clink!"

Tom had to chuckle. It was the first time he could recall hearing the Admiral make any sort of joke.

"That is wonderful news, sir. But, you say he was up here? I have no idea where that island place is."

"I do," interrupted the agent. "That's where the van drove to last night and where my agents are supposed to be keeping an eye on things." He didn't sound happy.

"There's more," the Admiral said. "It seems he also had a crate of electronics, possible the guts from your little coupe, with him, trying to smuggle them out as well."

"Oh. Then I guess the car we see covered with a tarp is going to be empty. I'm glad you told me before I went into a panic. Are they all in one piece?"

"Unfortunately, from what I've been told it appears the machine gun rounds might have also hit the crate. I have only heard from the Coast Guard Commander involved, but he said whatever was in there is, and I quote, 'One sorry mess.'"

Tom related about watching on the drone's video as the three men had taken something from the coupe and put it into a van. "Now we know what it was they were taking. It looks like they had just about finished with the coupe."

"Well, I'm a little angry at having everything ruined, Tom."

"I'm sorry it came to that as well, Admiral, but I suppose it couldn't have been avoided. I can always rebuild them if we need to perform more tests. In the long run I'd say Roberts and the others may have provided us with as much proof the system works as anything. I'll know more once I get the computers back to

Enterprises and see what is left and whether any of the data can be salvaged. Listen, I'm getting a signal from Agent Evans to wind this up. Is there anything else?"

There wasn't, so Tom ended the radio call.

Agent Evans, who had been quietly talking on his own radio turned to Tom. "We've got our people at all intersections around that odd-shaped block as well as the woods across the street to the southwest between that and the baseball fields. Thanks to those little silent 'copters of yours we've dropped men on all four rooftops. We're just about ready to move."

Overnight, Damon had shipped two Wasps down to use in the raid. With an agent slung underneath, each had made four trips from the nearby field to place men on several rooftops. They had returned to LaGuardia Airport to be repacked into a container in the belly of the *Super Queen*.

He made a radio check with the various agents. One-by-one their whispered, "Ready" replies came in.

Into the radio he called, "Right, In five... four... three... two... and... now! Go, go go!"

"Let's go," Tom said starting to grab for the door handle. The agent reached out and held his wrist.

"Sorry, Mr. Swift. Tom. You as well, Bud." He was shaking his head. "You two stay right here with me. These people are really bad men and there's no telling what they might have in there. As it is, only unmarried agents are here and I'm really supposed to get you back ten blocks." He looked into the inventor's eyes. "I'm not going to do that. I need you to be ready to get in there once we have the situation under control, get into that coupe, and get it the hell out of here! Hightail it back north to Shopton and get it locked up tight! If I never see it again... well, you know."

Tom nodded. Somehow he knew deep down he would never have been allowed to get mixed up with the dangerous parts of the operation.

There was a short series of what Tom and Bud both thought to be gunshots coming from the direction of the apartment building, but they could not be certain.

When the call of "Clear" came over the radio six minutes later, Evans nodded to Tom and looked at Bud in the mirror. "We're on, men!" he stated, pulling up on his door handle.

In a minute they had run the three blocks to the front of the apartment building. Two agents were standing guard by the car-shaped tarp out front. Another pair were at the front door of the

building.

“Wait a second,” Tom requested as he went up to the car.

The two agents started to block his way but a glance at Agent Evans had them quickly stepping back.

Tom, his heart racing, leaned down and grabbed the tarp just below the front bumper. He pulled it up.

A smile of relief spread across his face.

“It’s the coupe,” he called out. Taking a peek into the interior his good mood diminished a little. “But, they’ve really done a number on it inside. Well, at least it appears the Coast Guard has all the parts that are missing.”

Dropping the tarp he turned around. “Let’s go up. I want to see if they did any diagramming of the system or left anything behind.”

With Evans in the lead, gun drawn, they climbed three flights of stairs. Another two agents were stationed at the door of an apartment three-quarters of the way down the hall. Both had their weapons drawn.

Evans nodded at one and he returned the nod.

The hulking agent and Tom headed through the door, but Bud stayed behind. He knew he would be just one more body, and probably in the way at some point. He was about to ask the agents how things had gone when Evans called them into the room. Seconds later, a noise came from behind him.

Bud spun around in time to see Abdul the Righteous close a door, obviously from an adjoining apartment. The Iranian stared, wild-eyed, at Bud before turning to run down the hall.

With a shout, Bud gave chase. They were only about twenty feet apart, and Bud was fast, but the large man had longer legs and kept the distance between them. He came to the end of the hall and slammed his shoulder into a door with an **EXIT** sign hanging at a cockeyed angle above it.

Without thinking, Bud skidded to a near halt before plunging through the same door. Hearing the sounds of the big man’s footsteps going down, he vaulted over the nearby railing and onto the stairs below, cutting the separation to about ten feet.

At the next landing, the terrorist suddenly turned, yanking a long knife from his waistband. He swung it wildly at Bud, but as his arm traveled in a wide arc past him, the skilled athlete in Bud Barclay came out. He lowered his head and shot forward, catching Abdul in the midsection.

Giving a mighty *ooofff*, the Iranian folded in the middle and fell backwards. With nothing but stairs behind him, he flailed his arms but could not get his balance in time to avoid crashing backwards down a flight of twenty stairs.

Slightly out of breath, Bud looked over the railing as he took several deep inhalations. At the bottom of the stairs, now a full level down, lay the crumpled body of the terrorist. It wasn't moving.

Bud walked back up the stairs and down the hall. When he arrived back at the apartment he poked his head inside.

"Evidently, nobody heard my shout. Abdul came out another door down the hall and I chased him part way down the stairs."

Evans whipped around and swore. "Did you let him get away?"

Bud shook his head. "Nope. I gave him a flying tackle and sent him over a rail and down a full flight of stairs. His body is down there now."

Agent Evans brushed past Bud muttering, "Thanks, Barclay," and he and three agents jogged down the hall. They disappeared through the **EXIT** door, but came back a minute later. Evans motioned for Bud and Tom to come.

When they arrived he pointed down.

"Where exactly did you say the body was?"

Bud looked over the railing. There was some blood down there, but no body could be seen.

"I guess the fall didn't kill him."

"Really?" came back the sarcastic response. "Come on!" ordered Evans and he and the other agents headed down the stairs.

"Do we follow?" Bud asked Tom.

"I don't think so. My guess is that Agent Evans is a little upset right now. I suggest we go back down the main stairs and out front. I want to take a closer look at the coupe."

No agents were to be seen in front of the building.

"Looks like everybody took off to assist Evans," Bud commented as Tom stepped forward to the coupe. He lifted the tarp and folded it back to expose the entire front of the vehicle. Reaching into his front pocket, he pulled out a duplicate key fob and unlocked the doors.

"Will you pop the hood for me, flyboy?" he requested.

Bud opened the door and reached under the dash. The hood released and Tom undid the secondary latch, lifting it to the fully

opened position.

He let out a huge sigh of relief as Bud stepped around to take a look.

“It’s all there,” the flyer said. “That’s good, isn’t it?”

“It is very good, Bud. I’m going to start it up to see if it’s running okay.”

He stopped seeing Bud shaking his head.

“No?”

“No. Let’s get the FBI guys to give it the once over in case old Abdul planted a bomb in it. We can’t have you going all to pieces over this, can we?”

Tom groaned. Even in times of stress Bud Barclay could pull a pun out of nowhere.

“Did you find anything in the room,” the flyer asked.

“Yeah, but you don’t want to hear about it,” Tom replied, the grisly scene playing in his head.

Both of them froze at a noise coming from in front of the next car up. Bud craned his neck around to see if any of the agents were close enough to come to their aid. There was nobody.

Another noise sounded in front of the other car. It was parked next to a large tree, and it was early enough that there were shadows under the tree that could hide someone.

Like Abdul the Righteous!

Tom and Bud looked at each other as the noise was repeated a third time. There was a sudden movement at the base of the tree and a large gray cat raced across the street, a rat dangling from its mouth.

“Ick!” said Bud.

Tom grimaced and opened the passenger door and took a good look in the back of the coupe. Everything was missing. No, that wasn’t correct. All the computer equipment was missing, but Tom noted all the TruStealth camera/emitter units were still in place. Their fiber optic lines had been yanked out.

“Roberts got himself a really great computer system for all his troubles, Bud, but even if he had escaped it would have been just that. He never took a TruStealth Telejector unit.”

They were discussing this when Agent Evans and two of his men came walking around the building. Seeing Tom and Bud they walked briskly over to them.

“We missed him,” admitted the agent. “Looks like he climbed



down into one of the old storm drains around this neighborhood and hightailed to down to the river. Two of my men followed a blood trail down there to within a block of the river before they heard a boat race off. By the time they got to the end all they saw was the last of the wake.”

“I hate to think that the terrorist escaped, but the good news is we have the coupe, the computer, and Rik Roberts,” Tom said.

Running a hand through his close-cropped hair, Evans nodded. “Yeah. There is that.” He patted the roof of the coupe. “Does she start?”

Bud stepped forward. “I’m sure you meant to ask, can we, the FBI, do a thorough check of the car to see if any explosive devices may have been planted to make life miserable for anyone attempting to start or drive the coupe, didn’t you?”

Evans slumped and sat on the ground. “I’m getting too old for this— for this *stuff*,” he said making a motion to the other agents.

One of them spoke into his cuff requesting an explosives unit be dispatched.

While they waited, Tom took a second look in the engine compartment. With one exception all the wires were intact. The one that had been cut—possibly with the thought it would delay moving the car, and the ends hidden behind the air filter—had no actual use in this version of the coupe. It was part of the standard wiring harness that would, in production cars, provide electrical power to the heater fan.

A black van pulled along side of the coupe and two men holding a variety of instruments, and a mirror on a stick, got out.

Evans had Tom and Bud step back while the agents went about their business. Ten minutes later one gave a thumbs-up sign. The men climbed back into the van and it pulled quickly away.

“Looks like she’s clean, Tom,” Evans told the inventor. “Just to be absolutely safe, let me start it up. Okay?”

About to suggest that if the agent was so certain there was no boobytrap, then it was ridiculous to not let Tom start the car, he saw the look in Sander Evans’ eyes. In a flash, he knew that the rough and tough FBI agent was like a kid around a fancy car. All he wanted was to sit in the driver’s seat and hear the engine roar.

He tossed the fob over. “Go for it. And, if you also think it prudent, you might want to drive it around the block, or perhaps several of them,” he suggested with a slight grin.

Five minutes later Evans pulled back up in front of the boys and the other agents. He climbed out, tried to wipe the smile off his

face, and told them, “It checks out. I think it will be perfectly safe for you to drive it back up to Shopton.” He winked so that only Tom could see it.

Tom sent a radio call to Enterprises. Even though they would have been watching on the drone’s camera he wanted to let his father know to pass the word the coupe was safe and that nobody had been harmed.

“At least, none of the agents or Bud and me,” he amended his statement when he saw Evans’ head shaking slowly. “We’ll be heading back to LaGuardia. Go ahead and have the drone tail us. It’ll all be on visual, though.”

He related about Roberts having pulled all the computer equipment out. He suggested contacting Admiral Hopkins to see where and when the crate of equipment might be retrieved.

Before he and Bud left, Tom took Agent Evans to one side.

“Listen. I know there have been some moments of distrust and animosity, but I want you to know I hold you and your *real* team members in the highest of regard. You are welcome any time at Enterprises.”

Evans’ giant hand closed over Tom’s. He gently shook it.

“You’ve been both a thorn in my paw as well as the man that pulled it out. I wish we’d got all the bad guys, but maybe it’s just a matter of time. We have an excellent view of Abdul the Murderer so we’ll see just how good the nationwide facial recognition system really is. My guess is that you could have made one better!”

The boys started the coupe and drove away, soon turning left onto Highway 9, which also happened to be Broadway.

“Now I’m wishing we’d build a navigation system into this model,” Tom said as he looked around for some sign of where to turn.

“Let me try this. Enterprises? This is Barclay,” he said into the portable radio he was now holding.

“Go ahead, Bud,” came the answer.

“Can you guys pilot the drone up a bit and give us some turn by turn instructions on how to get out of this maze and over to LaGuardia?”

First came a laugh and then the answer, “Will do!”

They only took one wrong turn—it was Bud’s fault for not realizing there was a difference between Place and Street at one point—but arrived at the airport in good time.

The drone set down next to the *Super Queen* and suddenly

turned visible.

Bud laughed when he saw the top of the vehicle.

“If you ever need to see this thing again, tie a pigeon to a sting and watch where it flies. They’ve been using the top for target practice!”

Tom and the others around also laughed on seeing a couple telltale white streaks.

They got back to Enterprises and had everything unloaded by two in the afternoon. Now extremely hungry, Tom TeleVoc’d Chow to see if he could meet them in the shared office with a plate or two of sandwiches.

“Will do, buckaroo!” the cook answered back. “Got me some really nice roast beef n’ ‘bout the best cheddar cheese you’ll ever taste. Think I outta toss in a couple roast pork n’ brie as well?”

“I’d say one of each for me and maybe even two of each for Bud. Thanks, Chow.”

As they sat eating fifteen minutes later, Mr. Swift came in. “Ahhh, it looks like we *won’t* be going out to celebrate tonight after all. You two won’t be hungry for another day or two.” He turned serious. “I spoke with the Admiral. He and his new adjutant are coming up in two hours. They will have picked up the crate with the remains of your *InvisiCoupe’s* computers.”

That’s great,” Tom said. “I really need to know what was causing the system to only let the car go invisible gradually. If I can’t pin that down, we may still have a heap of trouble coming!”



## CHAPTER 20 /

### DEPLOYMENT AND DELIGHT

IT COULD have been worse.

Admiral Hopkins and his new assistant—Tom noted that the young woman was the same one who had accompanied the Navy man on his first trip to Enterprises regarding the invisibility needs—arrived late that evening.

According to information the Admiral had been able to give them, at least the shells used by the Coast Guard ship had been simple, steel-jacketed ones that had gone straight through the crate only doing damage where they actually passed through equipment inside.

However, the damage was serious. At least fifty percent of the digital storage had been irreparably damaged or destroyed. The rest was in worrisome condition, but Swift Enterprises had a small team of data recovery experts who could do everything from locating and restoring a wrongly erased photo on a cell phone to recovering both analog and digital data on a large scale.

Their record was very good, but even they admitted Tom was going to be missing huge chunks.

“Well, do what you can. Oh, and see if you can identify the time periods where info is gone. I’m not specifically looking to rebuild all the data, but more getting the larger picture of what was being collected. Thanks!”

They did their best and to Tom, they performed a miracle. He sat facing the team just two days later.

“Okay. Because the main databank was absolutely virgin storage space with no fragmented old files in there, everything was being stored in contiguous order. Now, if this had been an old hard drive I’d tell you it was going on sector-by-sector, but you get the drift, don’t you, skipper?”

“Yes. I do. I’m not going to try to guess what is coming next, so just go ahead and hit me with the facts.”

“Sure. Everything stored from moment one until eleven days ago has been recovered. We have it stored on another data bank ready for you. Most of what was recorded four days ago all the way until an electrical spike wiped maybe the last five seconds of data—right up to the time the computer was evidently unplugged—is also there. Everything between those two times will never be known. That stuff was in the forty-seven sub-banks that were

destroyed. Plus, of course, a lot of blank space. We can't even guess what could have been in there because there is no sort of storage array involved."

Tom was actually elated at the news and requested that the new databank be brought to his large lab as soon as possible.

The invisibility issue of no longer being an immediate process had first been noticed at least sixteen days before the loss of data.

It took Tom nearly five days to go through everything and to create and run simulations of what would have been occurring in the computers and TruStealth units.

At the end of that fifth day he arrived home, his face a mask of stone. Bashalli greeted him warmly but pulled back from her usual kiss on seeing his expression.

"Oh!" was all she got out.

She followed him inside and watched as he dropped his tablet computer on the table next to their sofa and plopped down. He patted the cushion next to his, inviting her to join him.

"Is it bad news?" she asked meekly. "If it is, or even if you just say so, I can call and cancel the dinner we are having for your parents."

He took a deep breath and turned to her. "This the one I promised Dad for his help with the drone?"

Bashalli nodded. "Do you want me to postpone it?"

Tom shook his head. "No. I think I want dad to hear what a boneheaded idiot I am." He would say nothing else about the matter to her, but he offered to assist with setting the table. She knew it would be best to accept his help.

He was in the kitchen when Damon and Anne arrived. Bashalli answered the door and hurriedly whispered that something was wrong and that Tom was not in a good mood. The inventor came out right after she'd finished and offered to make drinks.

Both parents accepted a small glass of red wine.

There was little conversation as they sat in the living room until Tom stood and cleared his throat. "I need to tell you all something. Momsie, you don't know anything about the project I'm talking about, unless Dad has been filling you in, and Bash only knows bits and pieces because she has been assisting me. And Dad, you know everything except for one thing."

"What is that?"

"I messed up big time on the project. You know how it started

out working like that—” he snapped his fingers, “—but then began to take a few seconds?” Damon nodded. “Well, I don’t know how many times in my life you have told and told *and told me* to check, double check and then recheck everything, but I didn’t do that. When I was putting together the original programming for the test car, I copied and pasted some routines from another program.”

“Everybody who codes does that, Son. What happened this time?”

Now Tom smiled. “I copied a sub-routine counter in the code. A single line. One that began to add a time delay between the pulses that make the thing work. Momsie, here’s where I have to trust that you won’t say anything. You see, I was making a car go invisible and... ah, but I see you know that. Okay. Anyway, this counter started placing a few milliseconds in between each pulse. It takes about two hundred millisecond-long pulses for the process to complete. At first that was faster than the human eye, or brain, can register. The problem is, these gaps accumulated. Over a period of weeks those delays got longer and longer until it was taking more than a full second to complete the process.”

“But, that’s great!” Bashalli said. “It let you see the car.”

“Yes, but it also means that if this had gone on any longer, and if Roberts and his cohorts had meant to remain in the City, more and more people might eventually have seen the process. If that had happened, the entire project would have been compromised.”

Bashalli kissed him on the cheek. “But it didn’t, did it?”

Anne nodded until she realized what she had just heard.

“Bashi! You used a contraction! Oh, my!” She moved over and hugged her daughter-in-law. Soon most of the conversation turned to talk about her concerted efforts to change her speaking habits.

As they rose to go to the dinner table, Damon held Tom back a moment.

“That knowledge has no reason to leave these four walls, Tom. You found the problem and that is what is important.”

“Thanks, Dad. I guess technically I’m a man, but I still feel like a little kid sometimes making dumb mistakes like that. I hope someday to be as intelligent about these things as you are.”

“Ha! Remind me to tell you some time about the accidentally self-ejecting toolkit I created for the space shuttle. I’ll just say that there is a lump of unidentifiable metal sitting in a display case in a museum in Romania that used to be a self-ratcheting wrench and an inertia-absorbing electric hammer.” He smiled and nodded his head as they left the living room.

Scaling up the computer system to handle the enormous amount of visual data their test ship would create might have been a Herculean effort had it not been for the announcement of a new super processor chip from one of Enterprises' favorite suppliers.

When immersed in liquid nitrogen it could run at speeds triple those of any other processor on the market. The bus structure on the input side was three times as wide—meaning tripling the data coming through at any millisecond—and it could easily be connected in groups of up to eight processors that would automatically share the processing load.

With room for sixty-four of them, Tom's computer would be one of the most powerful in existence.

The nature of the cooling system meant that the overall package was ending up about thirty percent larger than originally anticipated, but rather than pushing the absolute limits of the computer, there was going to be plenty of processing cycles available should there ever be a need.

Several small tweaks had to be made to the design on the TruStealth units, but one of these allowed them to be made three millimeters thinner.

In all, the TruStealth units, fiber optic wiring, computer and cooling equipment would eventually weigh in at three point two-two tons. Something nearly any ship would barely notice.

The largest of the Enterprises' computer clusters spent several weeks computing the precise locations for the units to be placed on the test ship.

The TruStealth units had started rolling off the assembly line by the time the first ship—their prototype installation—finally made it into the floating dry dock parked against Pier 10 at the Norfolk Naval Air Station. There had been a five week delay in getting both ship and dock facility in place, something the Admiral was incredibly unhappy about.

He was even less happy when Tom had to contact him five days later with a problem. A big problem.

“Sir, it seems that the shipyard master has been deciding to make some changes to the outside of the ship. He has so far rearranged five wiring runs on the port side and three on the starboard side. He had been welding the brackets right where we have determined the units must be placed.”

“He has no such orders!” Admiral Hopkins declared angrily.



“Right. But nevertheless, he is doing exactly that. I told him he needs to stop because he is jeopardizing a special project. I can’t get anything other than cursing out of him because I’m some, according to him, ‘snot-nosed brat with no military experience.’ Each time he takes the space we need is causing days of rework to the positioning calculations.”

This had been finally stopped once the Admiral explained to the yard master that as a United States Navy Senior Chief Petty Officer, and one who still needed five full years to reach his retirement, that being stationing in a place called O’mank-Ook, Greenland, and being there as part of a contingent of five tasked only with a weekly counting of puffins and cataloging the destruction their guano caused at an emergency Navy airfield over a four year period was possibly not the closeout to a career he might wish for.

The Chief had threatened to quit outright but softened his approach the moment the Admiral held out a hand asking for his letter of resignation to be placed there.

Instead, and because he could not come to grips with not being totally in charge and allowed to do what he believed was in the best interest of each ship to which he attended, he accepted an immediate transfer to the shipyard in Bremerton, Washington, completely missing the distinction between the state on the Pacific side of the country and Washington in the District of Columbia.

He was in for a nasty surprise.

Work on the prototype ship got back on schedule by the week’s end. A team of expert welders returned the cable run brackets to their original positions, ground down the metal debris, and were preparing to repaint the areas when Tom stopped them.

“We’re going to be sandblasting everything the day after tomorrow anyway, so save yourselves the trouble. Okay?”

Being civilians and only required to remain on the ship when working, they all smiled, picked up their equipment and took an early quitting time that day.

Once the paint had been removed from all metal surfaces, a few dozen small pits needed to be filled in on the starboard side. These, it was revealed, were where bullets had strafed the side of the ship once several years earlier.

A tomasite-based epoxy was used to provide great strength as well as allowing the new paint and the final coating of liquid tomasite to adhere.

Tom had earlier determined that the layers of paint would

make a huge difference in how the TruStealth units were attached to the ship. They would never stick as well to painted surfaces as they would to the bare metal. But, rather than do that and have to mask off each of the units, he designed a simple bracket for each that was to be permanently glued to the metal, painted with everything else and given the coating of the liquid tomasite, before the TruStealth unit would get mounted to it.

The optical wiring, of course, was laid out and glued to the bare metal first.

Expert painters came in next and gave the ship its base coat of primer and the topcoat of traditional colors: black below the waterline and haze gray for anything above.

Bud asked why they didn't go for bright green or even polkadots. "I mean, the thing is going to be invisible so why the gray?"

A Navy Second Class Petty Officer standing nearby answered that. "We won't always be using this new secret system, sir. The Navy can't have us sticking out like a sore thumb, or badly dressed teenager when we're not in special mode."

Bud, realizing his foolishness, offered to treat the man to a beer at the EM Club that afternoon.

Once the ship had been painted, coated and all the TruStealth units in position, Tom, Linda, Hank and Arv went around attaching the wires. A small test signal was then sent by the main computer to each unit and verified by the person having made the connection. They had been meticulous and didn't miss any connections.

The whole process took just ten days.

This was good news to the Admiral. Even though Tom had delivered in a couple months what he thought would possibly take years, Admiral Hopkins was anxious to see the system in action.

"Admittedly, we have larger ships and smaller ships, but at nearly four hundred and twenty feet, this ship gives us a great benchmark."

He then told Tom that the revitalized ship would be coming back out of dry dock in five days, would perform fourteen days of sea trials—more for the familiarization of the new members of the crew coming aboard than the equipment, and then would be officially relaunched one week later.

"Of course, you, your father and, let's say up to five trusted family or employee guests are invited, Tom. We will, for obvious security reasons, not be speaking of the new system at that time."

“We would be honored sir. Thank you.”

“No, Tom. Thank *you* for all of what this appears to be leading to. I fear we may never be able to publicly acknowledge you or your company for their incredible feat. But, please take my gratitude, and assume the gratitude of any person whose life will be saved, and from their families who will not lose a loved one. Uhh, by the way, what happened to the new detection equipment you came up with?”

Tom smiled. “Removed from the drone and pulverized, sir. Nobody will be able to steal or use it to find your ships!”

Tom went back to Enterprises feeling very good about what was happening.

\* \* \* \* \*

“Hey, Chow!” Tom called out to the westerner who was walking across the parking lot a couple days later.

“Hey, yourself, Tom. What kin I do fer ya?” He walked over to where the two young men stood. “Howdy, Buddy Boy.”

“Howdy, Chow. Wanda decide to go back on her anything goes in the shirt department agreement?” He was looking at the simple blue chambray shirt with the small outline of Texas on the pocket.

“Nah! I may be sorta new at this marriage thingie, but I’m a man with more’n a little common sense. I know she’s a givin’ me a lot of rein in this. So, and to keep our mary-tall happiness, I’ve decided ta limit my brightest duds ta just three days a week. Monday, Wednesday and Friday. This here’s Thursday, so I’m dressin’ down, so ta speak.”

Chow stood tall showing his relatively trim mid section. A few years earlier he had been nearly eighty-five pounds heavier and it had been telling on his overall energy level. Since then he had gone on a diet and exercise program and was nearly thirty pounds less than when he had first come to Enterprises.

“Well, whatever your agreement is with Mrs. Chow,” Bud told him, “at least you can buy some smaller shirts.”

“Yep! And pants, too. Things fit me real nice these days. Course, gotta buy tighter belts or my pants slide down ‘round my ankles!”

“Speaking of fitting you nice, Chow,” Tom began as he reached into his pocket with his right hand as he tapped his TeleVoc pin with his right. He subvocalized, “Damon Swift,” and when the connection was made he only said, “Now!”

He pulled his right hand from his pocket and held something out to the Texan. “This, Chow, is for you,” he told the man as he

dropped an electronic fob into Chow's now outstretched hand.

"Wha—I mean what in tarnation is this?" he asked, turning it over and over.

"That, Chow Winkler, is for *that!*" Tom said as he pointed at the quickly approaching bright red Swift 100 Coupe.

Tom and Bud began to laugh on seeing the confusion and then wide grin on Chow's face when Mr. Swift climbed out and walked over to them. He patted Chow on the shoulder before saying, "Congratulations, Chow. We just complete our mandatory early deliveries, so you get the very first one of these to come off the assembly line after those. Consider it a late wedding gift from Tom, Bashalli, Anne and me."

The cook sputtered and looked around as if this might be some sort of trick, but he soon took a walk around his new car, eventually climbing in and starting it up.

"Can you give me a lift through the tunnel and back to the MotorCar Company, Chow?" Damon requested. "I need to retrieve my own car."

"I'd be right pleased and proud ta do jest that!"

A minute later they disappeared around the corner heading for the tunnel.

\* \* \* \* \*

Two weeks later Tom and Bud attended a low key relaunching of the *USS Independence*, one of the oldest Littoral Class warships in the Navy. She had previously been taken out of active duty status and had been used for several years for testing new navigation and weapons systems. Following that, she had been decommissioned. Now, complete with a new paint job and the very first full ship TruStealth system to come from Enterprises, she was being returned to full commission status.

There was no bunting, no loudspeaker system, and only about twenty people standing on the flight deck at the back end of the ship. Except for the Captain, her entire crew stood at their stations ready to take her out to sea.

Admiral Hopkins had made a brief speech and cracked a special bottle of champagne over the bow of a scale model of the ship to commemorate the occasion. Soon, the non-crew people were walking down the gangplank to the pier.

Last off was the Admiral who left to the sound of eight bells and, "Commander, Atlantic Surface Fleet, departing."

While the crew got her jet turbine engines running and the deck

hands reeled in the lines holding her to the pier, the *Independence's* skipper, came to the port wing outside the bridge and saluted the Admiral. "Permission to take her out, sir."

"Granted!" Before the Admiral turned toward his waiting car he told Tom and Bud, "I couldn't be more delighted, Tom. Only one thing will make me happier and that is a successful shakedown cruise. I'll keep you advised."

Three minute later the ship maneuvered herself away from the pier, swung around ninety degrees, and headed away toward the open sea. Everyone remained on the pier for eight or nine minutes eventually drifting away in small groups.

"And, for your next trick, maestro," Bud said kiddingly as he and Tom stood on the pier watching the ship disappear—this time just around the end of the base, "you will find a way to not only make a rabbit disappear, you will get it to switch places with Schroedinger's cat and come back to tell everyone if the darned thing is alive or dead. No, really, what is on tap? We finished with water for a little while? I could use a nice jaunt in space."

Tom thought a moment. "We both need to spend a bit of extra time with our wonderful wives, and then I promised dad I'd start helping with the design of the second model car for the MotorCar Company."

Intent is nice, however, Tom has no way of realizing that he will soon find himself in an adventure that threatens to kill him, a possibility he will gladly face even though he already knows his odds are practically zero!

