

TOM SWIFT
And His
Oceanic SubLimator

By Victor Appleton II

Made in The United States of America

Technical editing by Greg Hall

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THE NEW TOM SWIFT INVENTION SERIES

Tom Swift And His Oceanic SubLimator

By Victor Appleton II

Seven derelict nuclear submarines are known to lie at various locations deep under the Atlantic and Pacific oceans. All contain nuclear weapons and reactors; most disappeared over the years without warning. Only vague details hint at possible locations.

They have just been joined by the newest atomic sub in the U.S. fleet. On a training mission, she sinks with all hands on board.

While Tom Swift is able to rescue the crew, the submarine contains two working reactors, each with a nuclear core that could poison thousands of square miles of ocean. It must be saved.

Previous U.S. efforts in recovering sunken subs had met with problem arising from both the enormous depths involved as well as the almost impenetrable solidity of the water under that much pressure.

But, his search turns up more than he bargained for. A deadly secret is revealed. What can he come up with to save the day?

This book is dedicated to the men—and recently, the women—who ply the oceans of the world inside of fragile metal tubes, surrounded by the most beautiful yet inhospitable part of our planet. In times of peace, most of you come home. But, not all of you. To those lost at sea under mysterious circumstances, you should know that you are not forgotten. Merely lost.



“Too late, skipper. Two more torpedoes in the water and heading right toward us!”

CHAPTER 19

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AUTHOR'S NOTE:

In recent years, and after an almost forty year hiatus, I have become reacquainted with a very special woman. She is the person who, at the age of five—my being of that age, not her—taught me to read.

While my mother, an artist, was painting *Winnie The Pooh* pictures on the walls of the children's room at our small town public library, Bea Dick was sitting there trying to keep her daughter and me occupied. As a result, this kid entered the first grade with a near-third grade reading ability.

And I began a life-long fascination and love of the printed word.

I had made it through the autobiographies of both Groucho and Harpo Marx by the time I turned seven and discovered Tom Swift that same year. Now it is a privilege to be able to add to the world of Tom, and it all started when one mother was just trying to keep a couple little kids from getting bored and becoming a terror.

The only problem was in convincing librarians and teachers that my reading abilities were far beyond the norm. I was constantly being told, "Now, you go downstairs to the children's library," or, "I don't know what to do with you. We don't have anything in the curriculum to challenge you!"

Ah, well. Some problems are good to have.

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Tom Swift and His Tectonic Interrupter

FOREWORD

By their very nature, submarines are deadly. Not only to those they hunt and attack but for those who man (or woman) them. Whether it be through inexperience or oversight, accident or attack, a certain percentage of submarines have been lost throughout history.

Add the element of nuclear power, and a 'lost' sub can cause a lot of problems. Keep letting them pile up and the problems grow, exponentially.

The name Swift has stood for the highest expectations and standards in nuclear safety. The Citadel is a prime example. Among all of the nuclear installations around the world, it has only had one minor problem, and that led to zero leakage or release of radiation. And, no injuries.

It is no wonder that our government turns to Damon and Tom Swift in times of need. Their experience places them in the forefront of the nuclear 'experts' of the world.

This time, however, almost nothing is in their control. This time, they could easily have stepped aside and let others take the risks.

That isn't the "Swift way" to do things.

That isn't why I chronicle Tom's exploits.

I don't write about those who stand by, watching others. I write about those who step up and DO.

Victor Appleton II

CHAPTER 1 /

WE HAVE A PROBLEM

“I HAVE TO admit, Admiral Hopkins,” a blond-haired, blue-eyed young man was remarking, “that the new Sea Stealth Class submarines are the most impressive subs I’ve ever seen.”

Agreeing with his friend, Bud Barclay added, “This one, the *Salem*, is super neat!”

“Thank you, Tom. Thank you, Bud. We are very proud of the design work that went into her and her sister boats.”

Tom Swift, inventor and scientist, had been involved in a portion of the new submarine design. The Department of The Navy had requested that Swift Enterprises assist them in developing both a new lightweight super strong composite structural material as well as providing the technology to make the subs totally absorb enemy sonar pulses.

“We were proud to be part of this great effort, Admiral. Even though we know we can never release information on our participation, we were glad to help.”

Bud inquired, “Will we be able to go inside of her today, sir?”

“I’d really like to say ‘yes’ Bud, but the truth is that she’s too near being fitted out, and the components inside already—including the ones that had to go in during the build process—are all Top Secret.”

Tom and Bud were allowed to tour the outside of the hull. The most notable difference between this new class of sub and traditional submarines was the lack of propellers. The tail end tapered into a long point flanked by three maneuvering fins, all very thin.

After the viewing, Bud asked The Admiral about the lack of screws.

The Navy man looked over the top of his glasses at the dark-haired young man. In a low voice he told Bud, “I can’t officially tell you anything about that, but Tom can take some credit for loaning us the idea from his Jetmarines. Perhaps, you could ask him about it, *once* you leave the Navy yard, that is.”

On their way back to Fearing Island, the Swift’s top secret rocket and submarine base located on a former scrub-grass island off the coast of Georgia, Bud asked Tom to remind him about the propulsion system.

“Of course, I’m guessing a bit about this, but the Jetmarines use super-heated water to jet out the back, pushing it forward.”

Bud nodded remembering now the details. “But, skipper. Didn’t you once tell me that you could never figure a way to make it work on anything much larger? Doesn’t it get kind of noisy?”

“That’s right. In something as small as a Jetmarine, even our larger cargo models, we can control the noise to some extent and then mask it with our artificial porpoise noises. But a larger version, something powerful enough to push a monster like the *Salem* through the deeps would be so noisy that anybody listening could hear her for hundreds of miles.”

“Not so good,” Bud stated.

Tom agreed. “I do think that they are using some of my technology for using water as the propulsion medium, I just can’t believe they merely enlarged it.”

They had just finished their conversation when Tom had to radio Fearing Control for permission to land.

Because the base they would be visiting had no runway or airfield, he and Bud had decided to take one of the Seacopters from Fearing for their trip to the newest Navy shipyard in the north part of Florida. It had been opened specifically to construct the latest family of fast attack submarines all to be named after state capitols.

The *Salem*, FNS-501, had been given that name when the new Secretary of The Navy had been honored by having his home state capital picked for the first of the new Class. She would go ‘down the slip’ in a few weeks and begin her sea trials. The Admiral had told Tom and Bud she would be commissioned in about three months and had invited them to be there for her christening.

“Fearing approach. You’re clear to come in, Tom.” Tom dropped most of the forward speed and let the Seacopter settle onto the water. He taxied it up to its mooring pier and the boys were soon jeeping across the island to the small jet they had flown in on five minutes later.

Back at Swift Enterprises, the sprawling four-square-mile complex of buildings, laboratories and criss-crossed with four major runways—and four other shorter diagonal ones—located on the outskirts of Shopton, New York, Tom and Bud headed to the administration building where Tom and his equally famous father, Damon Swift, had a shared office.

Settling into one of the comfortable leather chairs in the conversation area, Bud grinned at his best friend.

“I could hear the gears spinning all the way back, skipper,” he told Tom. “You’re trying to figure out what they might have done to silence your waterjet technology, right?”

“I have to admit that I’m intrigued, Bud,” Tom replied truthfully.

“What have you come up with, Tom?”

“Nothing solid, yet. I have a feeling that they might just be letting on that they’re using our technology as sort of a red herring for any spies. Either that or they’ve figured out a way to instantly cool the super-heated water keeping it from making the boiling water shooting out under pressure noises we contend with.”

They were discussing the possibilities when Tom’s father walked in. “Hi, Tom. Hi, Bud,” he greeted them. “I hear that you went down to see the unveiling of the new Sea Stealth Class subs.”

Tom told him about their trip and the seeming enigma surrounding the propulsion method.

“I really wouldn’t let it bother you, son,” he was advised. “The Navy folks will certainly want to keep their little secrets just that. Secret.”

“So,” Tom said following the older inventor’s advice, “I should let this particular sleeping dog lie?”

“Until Uncle Sam tells us and says it’s okay to talk, I think it’s best to just let it go.”

“Would it be okay if I did a few experiments with new underwater propulsion, just in case I want to add it to our own submersibles?”

Mr. Swift felt that such “research” could be advantageous to Swift Enterprises so he gave Tom the thumb’s up.

“Before you dive headlong into that, might I suggest that you give your sister and your girlfriend phone calls? I’ve heard through the mother-knows-best grapevine that a bit of attention is required before said young ladies find dates elsewhere.”

For more than a year Tom had been dating a vivacious Pakistani girl named Bashalli Prandit. Bashalli’s family had emigrated to the U.S. when the girl was just a little more than ten. She spent part of her weekdays at art school and part working for her brother at The Glass Cat, his coffee house.

Bud had been dating Sandra Swift, Tom’s year-younger sister for more than two years.

The foursome could be seen dating at local restaurants and places of entertainment. Not, as Sandy and Bash reminded the boys, as often as they would *like* to be seen in such places with their guys.

“Bud. You’d better give Sandy a jingle while I get in touch with Bash. Let’s see if they would like to go to the beach dance at Lake Carlopa tomorrow night.”

They made their calls. Both girls pretended to be aloof at first but quickly gave into laughs of excitement as the details of the dance were presented.

Hanging up, Tom smiled at his best friend. Bud made a circle from his thumb and forefinger and smiled back.

“Good thing we’re practically irreplaceable to them,” he remarked to Tom.

The dance began at 5:00 the next afternoon and lasted until midnight. By the end of the party, all four were exhausted from dancing and playing games of volleyball on the small beach area next to the Yacht Club.

Receiving a warm hug and a quick kiss at the door, Bashalli told Tom, “Once again, Thomas, you have pulled a very enjoyable rabbit out of a hat. I believe that you two deserve to have Sandra’s and my affection and companionship for at least a few more weeks.”

They both laughed.

The next morning was Sunday, but Tom had come up with a thought as he prepared for bed the previous night.

He let himself into the grounds of Enterprises and drove over to the underground hangar that housed both his first major invention, the *Sky Queen*—a giant flying lab aircraft that featured an array of lifters in its undercarriage for vertical take-offs and landings—as well as his underground lab.

He flicked on the lights in the lab and turned on his monitor. Tom was mildly startled when, just three minutes later, he received a phone call from Bud.

“Hey, Tom. I just got a call from Sandy, and she had just had a call from her friend, Daisy.”

Tom inwardly groaned at the mentioning of the pleasant and slightly plump girl’s name. Daisy had once been hired as a temporary assistant to Tom and had allowed herself to be wooed by a man who tricked her into stealing some of Tom’s invention designs.

Although no charges had ever been pressed, and Daisy had professed herself to be “so incredibly extremely and totally sorry,” Tom still felt that a little Daisy went more than a long way.

“So, what does Daisy have to say, Bud?” he asked.

“She says she found a treasure map at the library in an old book about the area. *Essex County and its Environs* or something like that.”

The map was supposed to show the approximate location of buried treasure in the area, Bud explained to Tom. It had evidently

been buried there more than a hundred years ago by a group of train robbers.

“The map says it’s all somewhere under the water at Lake Carlopa.”

Tom knew that the lake had been greatly enlarged almost eighty years earlier when a developer had thought it would be a wonderful sales gimmick to offer waterfront property to rich people in upstate New York. The whole plan had run afoul when The Great Depression had forced the developer into bankruptcy.

“Daisy, through Sandy, wanted to know if we could lend her a submarine.”

Tom was struck silent for a moment. Laughing, he replied, “A submarine, Bud?”

“Dead serious, skipper.”

Tom called his sister and received pretty much the same story from her. “I think I could take her for a little excursion in one of the atomicars, Tom,” she told him. “Can I borrow one for the afternoon?”

Tom agreed to let Sandy take the revolutionary car out that afternoon. It was a totally enclosed and sealed vehicle that could fly through the air, drive on the road using high-powered electric motors located in each wheel, and even be used as a boat. It was its ability to fill a set of ballast tanks with water and to travel underwater that Sandy wished to exploit.

“Come and get it, San,” he said.

When she arrived two hours later, Tom greeted her with a wry smile. “So you’re going to get yourself cooped up with Daisy for a few hours, huh?”

“She’s a nice girl, Tom. She just doesn’t have many friends. A really vivid imagination, but no close friends. I sometimes think that I am the only one who spends any time with her.”

“You’re a very nice push-over, Sandy.”

He tossed her the electronic key that would let her into the hangar that housed several of the atomicars. “Take the SA2. I think the SA1 is supposed to get a new instrument panel tomorrow. Have... uh... fun,” he concluded.

After his sister left, Tom turned back to the design plans he had called up onto his computer screen. They were the improved Jetmarine propulsion plans. Before Sandy had arrived, he had been in the process of calculating the almost exponential increase in noise for each thrust increase of less than 30%.

“They have to be doing something else,” he concluded. Tom leaned back in his chair and stared at the ceiling. He ran several different scenarios through his mind.

Mechanical drives were inherently noisy. As moving parts like propellers turned through the water they put off pressure bubbles and noise patterns called cavitation.

Among the quietest drives that had been experimented with before the development of the worm drive—a Soviet invention that Tom had partly incorporated into his Electronic Hydrolung’s propulsion drive unit—had been an auger drive.

A research sub had been outfitted with two long tubes, one on each side that held a fifty-foot long continuous screw auger. This was driven by heavily insulated electric motors at each end.

The process was a modern interpretation of the Archimedes Screw. As it turned it forced water along its entire length and out through a restrictor nozzle which increased the compression of the water and allowed for steering.

But, while it could move the submarine through the water, Tom remembered that it never made better than a dozen knots or so. Nothing like modern subs required. In the end, tests showed that it would require a drive unit almost as large as the submarine to propel it at any speed.

He arrived home about the same time as Sandy did.

“Any luck, San?” he asked.

“I think I would like to slap that Daisy,” she stated with frustration. “At first, she forgot the map so we had to go back to get it. Then, she had us going to the wrong end of the lake.”

“How did she manage that,” Tom asked.

“She had the map up side down. We finally got to the area she said the map showed to be the place and we dove down.” Sandy looked like she was either going to laugh or cry.

“So?”

“So... it turns out that Daisy gets claustrophobic. We could only stay down about a half-minute before she’d start to hyperventilate. I ended up dropping her off in the little emergency life raft and going down alone. I was under almost an hour when I took a closer look at her map.”

Tom could tell that his sister was resisting the urge to spew out a barrage of swear words. He waited until she composed herself.

“Know what I found?” Tom shook his head but remained silent. “I found a little notation in the corner of the map. It said, and I quote,

‘This map designed for the Shopton High School annual treasure dive, 1956!’”

Tom couldn’t help but laugh. While he felt his sister’s pain at Daisy’s foolishness, he also was quietly glad he hadn’t gotten involved.

He got up and hugged his sister. “It’s okay, San. You’re just too nice sometimes.”

All things submersible were put on the back burner the next day when Tom was asked to attend a meeting at The Swift Construction Company.

Jake Aturian, Damon Swift’s close friend and the manager of the Construction Company, called the meeting to order.

In attendance were department heads from his company as well as key Enterprises managers.

Jake detailed several current projects and provided their status, asking for input on possible assistance in areas where development was lagging. One such project, and the reason why Tom was invited to attend, had to do with the design and construction of two of the modules that could be used with Tom’s largest aircraft, the *Super Queen*.

Like her sibling, the *Sky Queen*, the *Super Queen* was capable of vertical flight and hovering. She was a three-story tall aircraft powered by a combination of solar, kinetic and atomic energy and propelled using Repelatron energy. The entire top surface was a high-capacity solar array, the power from which ran all ship avionics systems and kept the large bank of solar batteries at peak charge.

In times of darkness when solar was not an option, or where additional power was desired, a high-capacity turbine generator—about the size of a football—could be lowered from the fuselage.

The main power source in such times was a self-contained atomic-powered energy pod was used to create an extreme energy arc that vaporized liquid hydrogen and provided the propulsion for the six engines providing for horizontal flight. Through this method, the *Super Queen* was capable of speeds up to mach 2.4 and could reach anywhere in the world in under ten hours.

The Repelatrons had been a new addition to all of the Swift vertical-capable aircraft. Repelatrons could be tuned to repel any known element or grouping of elements. Many of Tom’s inventions took advantage of this remarkable capability.

Where the *Super Queen* differed significantly from the original Flying Lab was that the sections on either end of the central lifter area could be removed and replaced by specialty pods. Tom had

already designed two types of cargo pods, a hospital pod that had been used in the Caribbean when a major earthquake had killed tens of thousands and left hundreds of thousands with injuries, and a general utility pod.

“What is the issue with the pods in development, Jake?” Tom asked.

“The machine shop pod is totally out of balance. We did a set of simulations and they all show that that pod would make controlling the *Super Queen* in rough weather all but impossible.”

“Can’t we rearrange how the equipment is oriented?”

“As it stands, unless we either take out half of the stuff, or make some of the equipment impossible to use because of lack of room, then we don’t seem to be able to put everything into a single pod.”

Tom offered to investigate the problem and to come up with a solution by the following week.

The other pod issue turned out to be easily handled. At least for the time being. The U.S. Army had asked Enterprises to build a special troop-carrying module capable of holding 600 troops with equipment. “Have they completed the purchase order and set up for payment,” Tom inquired.

“They say they expect everything to be ‘in place’ in less than sixty to ninety days.”

“Then, we worry about it in sixty to ninety days,” Tom told everyone. “Besides, I show that a three-story pod with twenty rows of twelve seats each would handle almost seven hundred fifty people. Where’s the issue?”

“The issue is that they expect that each person will have a fully-reclinable seat that turns into a bed for longer flights. That cuts seating by half. Then, they want each pod to be detachable and able to be dropped and parachuted into battle zones!”

Tom agreed to make a call to a politician friend of his father’s to see if these were intractable requirements or just pipe dreams.

One month later, everything had been ironed out with the various pods. Tom had been involved, in the meantime, with a brief adventure in space where he and Bud had been tasked with recovering and replacing the entire set of GPS satellites surrounding the Earth.

This had included some repositioning that required that Tom devise a method of tracking down and capturing more than seventy tons of space debris that might provide problems for the satellites.

A large inflatable “catcher” module had been designed to use with

Tom's giant spacecraft, *The Challenger*. Folded, it fit into the spacious hangar. When moved outside and unrolled—via the use of metal strips that coiled when a negative electrical charge was applied and then straightened out with the introduction of a positive charge—it fanned out like a giant shallow cone.

As *The Challenger* moved back and forth in a search and sweep pattern, everything in a three-acre area simply fell into the collector. Debris was bundled and returned to the Earth using several Swift cargo rockets, the same type used to build Tom's Outpost in Space.

On one occasion it had been unavoidable and a working satellite had been "snagged." This was given an examination, a small upgrade had been installed, one repair had been made to a torn solar panel array, and it had been placed back into a safe orbit.

He was finishing his lunch one Monday when the Swifts efficient secretary, Munford Trent, buzzed his desk.

"Yes, Trent?"

"Tom. It's Admiral Hopkins on line three."

"Thanks." Tom picked up the receiver and pressed the line button. "Hello, Admiral. How are you doing today?"

"Tom. No time to explain. Not secure, anyway. I need you down here at ComLantFleet headquarters as soon as you can get here, please."

"Well, I have several very important commitments right now. Can I come see you tomorrow?"

The Admiral sighed. "That," he said resignedly, "will be too late I'm afraid."

"Can you tell me anything, sir?"

"I'm taking a risk here, but you need to understand my desperation. You will remember our new submarine, the *Salem*, correct?"

Tom told him that he remembered the sub very well.

"She was completed and hit the water for her sea trials about seven weeks ago," he told Tom. "Of course you know that already. You were there. While I can't go into details of her position or her track, I can tell you that as of 0800 today we had to declare an emergency. With no trace and no communication, *the USS Salem is missing!*"

CHAPTER 2 /

CAN WE GET THERE FROM HERE?

“I DON’T know what to say, sir,” Tom sputtered.

“Neither do we, Tom. She was out on sea trials and traveling in a known corridor in the Atlantic, out of communications for security reasons, and she failed to make scheduled contact.”

Tom thought a moment, and then asked, “How long ago was that?”

There was another heavy sigh at the other end of the line. “I hate tossing out the word ‘security’ as often as it seems I do, but—”

“Is that a total secrecy issue or can you tell me more before I come see you?” Tom asked. “If there is some way for you to give me more information I may be able to devise a way to anticipate where she might be.”

“Well—”

“Admiral. The sooner the better. If there is any hope of finding her and the men aboard before it’s too late, then we need to get cracking right now!”

“Do you really think there is any possibility they are still alive?”

Tom was very surprised to hear the Navy man ask that question. Normally a very positive person, he now sounded defeated. However, he again asked that Tom come directly to his fleet office in Virginia.

Tom raced out of the office and used his TeleVoc pin to radio a request to the hangar manager to get one of the fastest small jets warmed up.

In less than an hour he was in a taxi and on his way to the Navy base.

His arrival was anticipated. A Marine motorcycle guard met the taxi at the main gate and immediately escorted Tom to the main Administration building. He paid the driver and gave him a generous tip, then jumped from the car and jogged to the main entrance.

The Admiral’s adjutant, a Captain Browne, was waiting. They quickly strode up the stairs and into the Admiral’s office.

“I wish we were meeting on less stressful terms, Tom,” the man said. “Let’s get right down to it. Of course, the ongoing non-disclosure oath you have taken for yourself and for Swift Enterprises is in full effect.”

Tom nodded.

“I hate to jump the gun on anything,” Tom said, “but since time is of the essence, can you give me a rough bearing she might have been from here. I want to get the *Sea Charger* launched and on its way as soon as possible. Even right now if I can.”

“Tom,” the Admiral said with a glance around his office. “I’m about to break protocol. Again. I’m putting my trust and my career in your hands. I’m going to have to let you in on a secret that is so sensitive that it could change the safety of every man and woman on all of our submarines around the world. We have a set of fifteen different patterns that sea trials are run. Which one depends entirely on the luck of the draw. The *Salem* was on pattern eleven. I took the liberty of pulling it up on my computer. Come around here and take a look.”

Tom moved next to the Admiral’s chair and watched the screen change as the Navy man keyed in three separate code sequences. In seconds he could see the intricate pattern of zig-zags, loops, twists and backtracks running from the coast of the U.S. all the way to within a few hundred kilometers of Portugal.

“Then, it should be dead easy to figure out where they should be,” Tom exclaimed.

The Admiral shook his head slowly. “Here’s the other part. Watch this.” He used his mouse to grab onto the starting point and moved it up and down the coast. As it moved to a position that might cause it to hit land at some point, the pattern shifted and adjusted.

Tom whistled. “Wow.”

“Wow is correct. You see, it is up to the Captain of the boat to decide exactly where the starting point will be. They do not report it to us, so we rely on radio reports, usually shot by laser up to a series of satellites for security sake. The upshot is, we have no idea where the Captain began his route!”

Tom went back and sat down. He thought for a minute and then brightened. “Got it!” he said. “Give me a couple hours and I’ll write a program that will chart where they should be given any one of, oh... let’s say five hundred different starting points. That’s a new track for about every five miles up and down the coast.”

“But, how will that help us,” Admiral Hopkins asked.

“Well, if I do this right, then we will have a line somewhere out there that the *Salem* should be on. Somewhere on that line running north to south. We take the *Sea Charger* to the middle point and several of my seacoasters and check all along the line.”

Now it was Admiral Hopkins’ turn to brighten. “So, if I follow you,

your *Sea Charger* would be no more than about twelve hundred miles from wherever she might be located. How fast can she go?”

“In a pinch—and this is Swift Enterprises secret, sir—she can do fifty-seven knots. She’d be just under twenty-two hours away at most. Of course, depending on how far *Salem* is supposed to have gone, it might take a couple days to get into position.”

Tom called to Fearing Island to get everything underway for the *Sea Charger*. He was happy to hear the duty dispatcher tell him, “She’s mid-Atlantic right now, skipper. A team of researchers are using her to track a mysterious band of super-low salination. Just let me know where she needs to be and I’ll get them there, pronto!”

The Admiral placed a call of his own and soon a young woman knocked and requested permission to enter the office.

“Granted.” Hopkins called out. “Tom. This is Amanda Nichols. She is one of our top programmers. She will help you gain access to our systems and ensure that you can get what you need.”

He briefly explained what was required of the young woman. She appeared to have some reservations until the Admiral reminded her that lives were at stake.

Tom turned to the Admiral with a worried look. “Uh... I completely forgot about speed. She might have been going at various speeds—”

For the first time, the Navy man smiled as he interrupted Tom. “Not to worry, Tom. All sea trials follow a strict protocol of speeds and durations. That’s all figured in on the route map.”

Tom smiled and nodded.

Good to his word, and with the assistance of Miss Nichols, Tom had a quick but elegant program running in under ninety minutes.

The three stood around the Admiral’s computer as Tom keyed in the **RUN** sequence. Images raced and changed almost too quickly to be interpreted by the human eye. In fewer than three minutes everything had been computed and a static screen appeared displaying a meandering line running from almost eight hundred miles south of Greenland down to a point roughly six hundred miles northeast of Haiti.

Tom pointed to where the *Sea Charger* was currently located. “She’s in a better position than I might have hoped. All she needs to do is backtrack west somewhere around three hundred miles and she’ll be in position.”

Before he left, the Admiral made him remove and completely erase his program. Then, he handed Tom a heavy, sealed envelope. “Once you find her, open this. Not before. It contains a coded

message identifying you as the authorized rescue party.”

He quickly showed Tom how to open the seal without releasing a chemical agent that would destroy the special ‘paper’ inside.

Tom headed straight to Fearing from Virginia.

Once he landed, he met up with Bud, Zimby Cox and Slim Davis. Each of them would pilot a seacopter to equally spaced points along the supposed location path.

After a quick briefing, and the arrival of two support crewmembers for each craft, they all boarded their seacopters and got underway.

Bud flew to the northernmost point and Tom the next one to the south.

It took Tom almost three hours of flying time to reach his starting point at which time he dropped the craft to the water. “Swift One to team. In position and dropping. Let’s check back in two hours!”

He reversed the giant fan blades located in the middle of the saucer-shaped craft and his seacopter, the *Cousteau*, was soon plunging into the inky black depths of the mid-Atlantic.

In moments it was too dark to see anything, so he switched on the ship’s aqualamps, powerful searchlights that used a different wavelength of the light spectrum. It required the specially treated view windows to let the light, and what it illuminated, be seen by the human eye.

There was still no sign of the ocean floor, so Tom pulled the power controller backwards even more, increasing their rate of descent. Ten minutes later he could just make out the seabed.

The oceanaut beside him let out a gasp. “Oh, my—” he uttered, pointing down and to the starboard side of the seacopter.

Tom immediately saw what the man meant. The upturned hull of a large cargo tanker could be seen below them. In the eerie light of the aqualamps, it made a chilling reminder of the dangers of the sea.

“I’m fairly certain that is, or was, the *Fairfax*, out of Nova Scotia. She used to carry cargo and automobiles between Canada and the west coast of Africa. Went down about nine or ten years ago under mysterious circumstances. Some say it was sabotage. Let’s drop down for a really fast look. Maybe we can take back some sort of news.”

They made a rapid circle around and over the upside down ship.

Soon, it was Tom’s turn to gasp. He silently pointed at the gaping hole in the stern. Rather than showing an outward force, with any torn metal protruding, this hole appeared to have been made by

something ramming the great ship from the outside. It did not, he noted, appear to be made by an explosive device.

Tom widened the circle they were traveling and looked for whatever might have punched that hole. Five minutes later he gave up and returned to the hull where he took a series of photographs of the damage, including several using the bright, standard searchlights carried on board.

“That’ll have to do for now. She’s only in about four thousand feet of water. Maybe some day we can come back for a better look. Let’s get back up a thousand feet or so and continue the search.”

In the meantime, Bud had reached his submersion point and had dropped to his search depth. His assigned area was, he knew from experience, littered with the crumbling hulks of hundreds of cargo and troop transport ships sunk during the Second World War by German U-boats.

“SONAR isn’t going to do us any good,” he told both his crew mates. “Far too much metal out there. Keep a good eye peeled for anything vaguely tube-shaped, guys.”

At the assigned time, all four seacoasters, including Zimby’s—who had only reached his start location thirty minutes earlier—rose to the surface and set up radio contact.

Tom informed them of the *Fairfax* sighting and Bud gave a brief report of more than fifteen sunken U-Boats he had seen. With nothing else to report, Tom reminded them that the probability that the sub was directly on the search line was small. “Keep widening the search. We might be off by as much as several hundred miles. Nobody except the *Salem’s* crew knows where they were when they got into trouble.”

Hour after hour went by with each scheduled radio contact bringing no, and therefore possibly sadder, news.

Tom grabbed a few hours of sleep around midnight, Shopton time. When he relieved Daryl Selzman, one of his two crewmen, he was told that there had still been no sighting.

“We’ve run the entire portion of the search line, skipper. Top to bottom, and I’ve turned us around an hour ago. I’ve offset up thirty miles to the west.”

Tom patted him on the shoulder. “Thanks, Daryl. Hit the rack for a few. That goes for you, too, Bobby,” he told the other, very drowsy man.

By the time the sun rose over the ocean, everyone in the four seacoasters was beginning to get frustrated.

Then, Bud blasted out an emergency undersea signal. Disguised

as ambient fish noise, it was picked up by the sensitive microphones on Tom's vessel and then relayed down the line.

They all rose to the surface.

"Got 'em!" Bud sang out. "They're listing slightly to their starboard side but the sub looks to be intact. Tom? Head due north to a point about two hundred miles into my zone and ninety-six miles due west." He provided the GPS coordinates.

Tom made a decision. Rather than wait the hour or so it would take to get there, he radioed the *Sea Charger* and gave her the coordinates with orders to get underway ASAP.

"We're just six hours from there, Tom," the Captain radioed back. "We'll make full steam and get there as quickly as possible."

On the slight chance that Bud's sighting was not the *Salem*—there were several submarines unaccounted for—he ordered Slim and Zimby to continue their searches.

When the *Cousteau* arrived onsite, Bud was waiting for them. He transferred to Tom's vessel and they dove.

"I lucked onto an area with almost no other sunken ships," he told his friend. "SONAR picked up something and we headed for it. There she is!" he pointed excitedly.

It was, indeed, a submarine and appeared to Tom to be the same size and configuration as the *Salem*. He maneuvered close enough to get a look at the small name stenciled on the side of the 'sail,' or what used to be called the conning tower.

U.S.S. SALEM

"That's it!" he shouted. "Let's get into the aquapod suits and get over there." Then, he remembered the envelope the Admiral had given him. He pulled it out of the drawer at the control console and used the technique specified to open it.

He had to chuckle when he read the 'code' they would need to convey to the stricken sub's crew. When it was handed to him, Bud also laughed in spite of the situation.

Tom's recently christened aquapod suit was the size of a large man. They were broad shouldered and deep-chested, and totally transparent from top to bottom. Built from one continuous piece of material which was formed and bent into shape rather than sewn or glued together, each of the flat surfaces were all but invisible. And, though they appeared as fragile as glass, they were incredibly strong and capable of withstanding the same great depths and pressures as Tom's old Fat Man suits, but with the agility of his hydrolung suits.

Three minutes later they were suited up and the outside hatch

opened to let them begin their short swim to the sub.

Reaching the hull, Tom located the boat's airlock, aft of the sail. He took a wrench out of the pocket of his suit and banged out the code on the hull.

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Tom hoped that the crew was still alive. If his calculations were correct, they had been in trouble and at this position for more than thirty-seven hours.

His fears and apprehension were relieved in seconds when they both heard an answering knocking.

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"They're alive Bud," he said through their sonaphones. Bud grinned through the clear helmet of his suit and gave a thumb's up sign.

Moments later the hatch of the airlock opened a few inches allowing a few bubbles to escape. But, it stopped there. Tom and Bud looked at each other.

"Do we pry it up, skipper?" Bud asked.

"Give them a few minute. It might be a power problem," Tom answered.

A minute later the hatch raised another few inches and stopped. This time, Tom and Bud took hold of it and pulled up. It was a heavy hatch but it moved freely. There were soon inside of the small airlock and had the hatch pulled back closed and dogged down, sealing them from the ocean depths.

It required almost ten minutes—and they later found out that everything had to be performed manually—to clear the water from the chamber, but they finally emerged into the cold and stuffy interior of the sub.

"Christ am I glad to see you," a man wearing an insignia identifying him as the Captain told them. "I'm Captain Arthur Jennings."

"We're mighty glad to see you folks, too," Tom replied. He introduced himself and Bud.

"Oh, I think we all recognize the famous Tom Swift, even in this dim emergency light," the Captain said.

"I won't take the time to ask what happened, but I want to know if you can hold out for another few hours? We've got a rescue ship

coming with a deep-water rescue chamber. It should be on site in about—” he glanced at the wrist of his suit and tapped a point just above the thumb. Instantly, a watch hologram appeared within the material of the suit. “The *Sea Charger* should be here in three hours and fifteen minutes. I’d try to transfer you over to my vessel but I’ve only got two extra suits and room for just five or six. Perhaps ten if we squeeze.”

With a resigned shrug, Captain Jennings said, “Do you have any emergency heating devices? We’re using the little backup power we have just to run a couple of our air scrubbers and these few lights.” He gave Tom a rueful smile. Both Tom and Bud could tell that the air scrubbing system was not keeping up with the build up of CO₂ in the air.

“I’ll be back in fifteen minutes, sir. Bud. You stay here and see about getting a hookup ready for our emergency power pod.”

With that, Tom reentered the airlock. Flooding the room was much faster than clearing it, so he was able to return to the *Cousteau* in just four minutes.

Five minutes after that he reappeared from the seacopter and swam back to the submarine, towing an oval container roughly the size of a picnic cooler.

When he finally re-entered the interior of the sub, Bud had a rudimentary connection rigged. A cable ran back out of the space, disappearing into the gloom. It was obvious that the high CO₂ concentrations along with the exertion of the men manually pumping the water back out of the chamber had taken its toll.

As fast as he could, Tom connected the cable to the power pod. One of the remarkable inventions to come out of The Citadel—the Swift’s nuclear facility—these pods contained a decaying radioactive isotope that gave off large amounts of heat. Heat that boiled a special gel in a sealed loop making it flow across special alloy plates that, in turn, generated electricity.

“Have your men isolated the circuit, sir? I’m certain we have enough power in this to run one of your air scrubbers at full force and one vent fan, but anything more will trip the breaker.”

The Captain looked at one of his Electricians Mates for confirmation.

He nodded at Tom. “Let’s go!”

Tom keyed in the activation code and waited for the green light. Then he pressed a button. The results were noticeable in seconds. Air that had been barely moving began coming out of the nearest ventilation port at three times the previous rate. Bud sniffed the output.

“Good old fairly clean air,” he declared.

“I wish I had two of these. Then we could give you some heat,” Tom told the assembled members of the crew.

“We’ll just hug each other for warmth,” one of the men called out, eliciting a small laugh from the stranded crew.

Tom asked Bud to remain in the *Salem*. “I need to go to the surface to let folks know we’ve found you.”

Captain Jennings laid a hand on Tom’s shoulder. “Please don’t do that,” he told the startled youth. “At least, not on any unsecured channel.” He explained that secrecy, even in a time of crisis such as this, was utmost.

Tom assured him, “Don’t worry, sir. I’ve got a very secure connection. Straight up to our Outpost in Space and from there in a tight beam down to our facility off Georgia. I’ll have Fearing send someone to personally deliver the news to Admiral Hopkins.”

When the *Sea Charger* arrived, Tom was still on the surface. He transferred to the large, flat-topped research vessel where he directed the deck crew as they prepared the twelve-man submersible that could be lowered to a depth of at least nine thousand feet.

“Fortunately,” he remarked as they were about to raise it from the deck, the *Salem* is in only twenty-eight hundred feet down.

Two hours later the first of *Salem*’s crew emerged from the rescue vehicle and into the late afternoon sun. By using just two Enterprise men in the vehicle, and cramming the Navy men in, they had been able to bring up fourteen. That left just seven trips to go.

With each trip down requiring forty minutes and the return trip taking just over seventy—to allow for rapid but necessary depressurization—that left about ten minutes to seal the submersible to the hull and get the next group onboard.

Captain Jennings had insisted that Bud come up with the second group.

“Honest, skipper. I wanted to stay down there, but he told me that civilians get out first, then the Navy. The only reason he didn’t push me into the thing with the first batch is that they’re the worst off.”

When the final group appeared on the deck of the *Sea Charger*, Tom received a warm handshake and a hug from Captain Jennings. “I absolutely don’t know how to thank you, Tom,” the man told him, his eyes moist with emotion.

“All part of the Swift service, sir. One thing, however. I understood the response code you tapped out. ‘SOS ALIVE.’ but I’m really curious about what I tapped to let you know who we were.”

Although obviously exhausted and disheveled, the Captain chuckled. “You were at the launch. Right? Well, do you remember the number the band was playing as she went down the slip?”

Tom thought, and then he shook his head.

With a smile, Jennings continued. “That was *Camptown Races*, Tom.”

Tom suddenly grinned. “Okay. I understand my response, then. ‘*Doo Dah, Doo Dah!*’ ”

CHAPTER 3 /

TRIP OF DISAPPOINTMENT

TOM AND BUD and the Captain of the *Sea Charger* were present at a private ceremony welcoming back the crew of the sunken submarine.

Absolute secrecy was being maintained regarding the *Salem*. The crew would be kept in isolation for another week until the submarine was due to arrive back in port. As the Admiral explained to the assembled group, “Our yard folks have a variety of disguises on hand. We can keep curious satellites from detecting exactly what we have in port by simply adding different features. The old *USS Albuquerque* is going to be towed from the ready fleet yard and delivered the night you are supposed to get back. She’ll be your stand in during the coming weeks.”

Later, Admiral Hopkins took Tom aside.

“We may already have tipped our hand, I’m afraid. One of our Embassies in Eastern Europe believes that there might be some discussion regarding the *Sea Charger* having been in one location for almost an entire twenty four hours and what that might mean.”

“My father and our Communications Chief, George Dilling, have come up with an announcement we believe might account for that.” He pulled a folded paper from his jacket pocket and handed it over.

“You see, Admiral, the *Sea Charger* was already on an expedition—a well-published expedition—tracking down a recent concentration in the salinity of parts of the Atlantic. As that dispatch says, she spend a full day at one site of interest, found a few bits of scientific importance, and moved on.”

Admiral Hopkins smiled and nodded. “Let’s hope this handles any snooping.”

When the Enterprise people returned to Shopton. Tom debriefed his father, George Dilling and their Security Chief, Harlan Ames on the situation. Each understood the vital necessity of maintaining strict secrecy about the submarine and rescue.

“Do they know exactly what happened to the *Salem*, Tom?” Harlan asked.

“Her skipper told me that they were having problems with at least a dozen systems during the first part of the trials. The biggest one is their new propulsion system. He tells me, on the Q.T., that it has been nothing but trouble starting day one. I gather from what he told me that it works by using the iron in seawater and a series of very

powerful—and fully protected from emissions—electromagnets speeding up the flow of water like an electric cannon. By the time it exits a couple hundred feet down the drive tubes it is going fast enough to get them up to their top speed.”

“So, how fast will she go?” George asked.

Tom smiled. “That is top secret, George. Even from the guy who saved everyone. But, my guess is that a theoretical speed of over fifty knots might be possible. If everything works right, that is. It looks like it isn’t, though.”

“What’s the Navy going to do, Son?” Mr. Swift asked.

“Admiral Hopkins didn’t say, but it’s a cinch that they can’t just park a fleet of salvage ships over her. So, the answer is, I don’t know.”

After Dilling and Ames had left the office Tom and Damon Swift shared, Mr. Swift turned to his son. “I know that brain of yours must be whirling at top speed, Tom. What are your thoughts?”

Tom considered the many things that had been going through his mind since the ceremony. He rubbed his jaw—a gesture learned from his father that signified in both men that serious thought was taking place. Finally, he said, “Admiral Hopkins wouldn’t say anything, Dad, but my bet is that they need our help. Unless they can dispatch another sub to that depth and get a repair crew on board, they either need us to bring her up on winches, or to transfer folks up and down to get her repaired on site.”

“Why not use their own submarine tenders—” Damon started asking and then realized exactly why the Navy could not use their own vessels.

They discussed how much time such repairs might require and some of the logistics that might go into such a venture. Finally, Damon asked Tom, “Realistically, Tom, how long could the *Sea Charger* stick around without drawing the attention of the world?”

“It might take some careful maneuvering and a phony search pattern to warrant going back there, but we could do it. I can even transfer any Navy personnel out at night in a cargo jetmarine. My guess is that no more than three days at one location before we would have to move.”

Tom left and walked to his small lab and office in the underground hangar where the *Sky Queen* was kept. Her sister craft, the *Super Queen* was almost ready to occupy a brand new below-ground hangar on the other side of the complex of buildings at Enterprises.

Being Tom’s very first great invention—at least in his mind—the

giant Flying Lab was still number one in his heart. When given the option to enlarge this hangar to allow for the newer aircraft or to build a separate facility, Tom told his father he would rather the original *Queen* remain alone in her snug hangar.

He sat in front of his computer screen recreating the program he had knocked together so quickly in the Admiral's office. He had an idea that it might prove to be a good search and rescue tool at some point.

An hour later his phone rang. It was Admiral Hopkins' adjutant. "Hello, Tom? This is Carl Browne. We met at the Admiral's office."

"Yes, of course, Captain Browne. I remember you well," Tom told the man. "What may I do for you, sir?"

"I was wondering if I might bring a friend to your facilities tomorrow? We have some free time and wanted to follow up on your offer."

Tom knew he had made no such offer to the Captain, especially regarding any friend. *This must be something to do with the Salem*, he thought. "Why, of course, sir. We'd love to entertain you and your friend. I appear to have time between eleven and three tomorrow. Would that do?"

"Absolutely. I believe our pilot has the frequencies to use for your tower. Shall we say, eleven?"

"Perfect. I'll have a lunch put on."

After hanging up, Tom called his father and told him of the odd call.

"I think you're correct, Son. It must be the Admiral's way of coming here without rousing any suspicion. Will you need me?"

"Obviously, you're welcome, Dad, but I don't think I'll need you directly. As long as I can call you if something comes up that requires a big gun's approval."

The following day a small civilian jet touched down and rolled to a stop in front of the visitor's terminal. The two occupants transferred to a waiting car and were soon deposited at the Administration building where Tom met them.

"Welcome, Admiral. Captain," he told the men as they all shook hands, noting that both were in civilian suits.

Admiral Hopkins looked somewhat sheepishly at Tom. "I suppose that you are curious about all this," he stated.

"Not really, sir. My assumption is that you want to talk to me about either the repair or the raising of the *Salem*. Or, both. And, because of the sensitive nature of it all, this meeting needs to be very

low key. Even disguised as a friendly visit and tour. Right?”

“I told you he as a genius. Didn’t I, Captain?”

Over the following three hours they discussed how Tom and Enterprises might be used. In the end, Tom summarized the requests by saying, “So, we’ll have the *Sea Charger* putter around within a few hundred miles for the next five days, during which you will get your men and women together and ready for pickup by one of our submarines that fifth night. We take you and your gear out and transfer you to the sub along with several more of our power pods.”

“Then, we get her up and running enough to limp back to port underneath the *Sea Charger* which we will use like an umbrella. That’s about it, Tom.”

Tom, Bud and more than fifty Enterprises and Fearing Island personnel worked furiously over the next few days. It was necessary to construct a coupling chamber that would allow people and materials to transfer freely between the large cargo sub and the nonfunctioning Navy craft.

Much of the outfitting work had to proceed at night to avoid detection.

The only problem arose when a small civilian aircraft strayed into the airspace at Fearing. Tom’s amazing autonomous drones raced to encircle it, using their equipment to render the pilot’s controls useless and forcing it to land. It was kept at the far end of the auxiliary runway located on the exact opposite of the island from the submarine pens.

When the security forces arrived, they took the young female pilot into custody. Tom was called to inform him of the intrusion, and he flew out to Fearing even though he had far too many things to attend to back in Shopton.

Standing behind the one-way glass and observing how the woman—actually only a few years older than Tom—sat there looking nervous and seemed ready to break into tears, he was struck by how completely overcome she was by what was happening to her. Moments later, a technician entered the room and handed Tom a two-page report.

“Either she figured a way to foul both of her fuel pumps just in time to get out here and land without crashing, or she started to have problems and headed for the only strip of land she could see, skipper,” he reported before leaving.

Tom read over the report. As the tech had said, there was actual evidence of problems with the mechanisms that were vital in moving fuel forward from the wing tanks and into the engine. Without them,

forward momentum would keep almost all of the available fuel from being useable.

He folded the report and went into the hall, and then entered the little room where the girl was sitting.

She looked up and into his stern face. She immediately broke down and began sobbing. In between great gasps, she blurted out, "I'm sorry! I know this is a no fly area and I was supposed to stay away, but my little plane started sputtering and I knew I couldn't make it back to shore. I'm sorry! Am I going to jail?"

"My name is Tom Swift and this island is, as you say, totally restricted. You're really not supposed to even fly this direction from shore without prior approval. Who are you?"

She dabbed at her eyes with the small handkerchief she pulled from her pants pocket. Sniffing, she replied, "My name is Donna Lynn. I'm from Beaumont, Georgia. I just got my pilot's license a month ago. I'm sorry. I didn't mean to cause any trouble."

Tom's glare softened into a simple stare. She was a moderately pretty girl with perhaps a slightly too large nose for her face, and a single dimple on her right cheek. Her somewhat short hair was pulled back in a short ponytail. She didn't look the sort to be part of any planned trouble.

"May I see your ID, please?" he requested holding out a hand.

She pulled out a wallet, quite similar to the one Tom carried he noted, and produced both her driver's license as well as her aviator's one. Then, she also pulled out her Social Security card, her automobile club card, and a student ID from Georgia Northwestern Technical College. Tom knew that school. He had delivered a speech there a year earlier.

He was about to hand her back her ID and tell her she could go when she took a deep breath and placed both hands on the table.

"Mr. Swift," she said, voice trembling. "I have lied to you. I am truly sorry. The fact is that I was intending to come out here to see you. I thought you might be here and this is closer than your company up in New York. I don't have the money for fuel for that sort of flight. The thing is, I chickened out and was turning back when I really did start to have engine troubles."

Tom looked at her. Could he believe this version of her story? "Why did you want to see me, Miss Lynn? And, why fly out here when you could call me at Enterprises?"

She looked down and then right back up into his eyes. "I lost my daddy when I was just twelve. He was a sailor who never came home." She shrugged. "The thing is, I had someone call me a week or

so ago and tell me that he could help me find my father if I would give him ten thousand dollars. I told him were to go and hung up.”

Tom smiled at the thought. He had been the victim of several extortions and knew what she must have felt.

“I called the police right away but they couldn’t do anything. Then, an hour or so later the same man called back to tell me that I shouldn’t have called the authorities. That if I did it again he’d kill me!”

“He probably assumed that is what you did and was just trying to scare you,” Tom told her.

“And, he did scare me. You see, the next day he called me and told me everything I had done since we spoke before. He was right. Even down to my trying on some boots at a local Western outfitter shop. Everything.”

Tom got to the point. “Alright. Why did you want to see me?”

“Because he told me that you were involved in finding my daddy.” The tears came again only this time they merely ran down her cheeks. “Is that true? Did you find him?”

“I’m afraid that I don’t even know who he is. What was his name?”

“Robert Lynn. He was a merchant sailor on a ship that disappeared about ten years ago. The man said you have a ship out in the ocean over where his ship might have gone down. Do you?”

“I have to disappoint you, but I have never found or even met a man by that name. Plus, we aren’t involved in any search missions for lost ships. I truly am sorry.” He was interrupted by a knock on the door. “Excuse me,” he said and left the room.

When he came back a minute later he announced, “My people have fixed your fuel pumps. Looks like somebody put Styrofoam beads into your tanks and then plugged the pumps. We’ve flushed the tanks out, filtered the fuel and put it back in. Your plane is all topped off and you’ll have plenty of fuel to get back to land. I’m sorry that I can’t help you.”

He escorted her to her plane and watched as she flew off. Climbing into his own SE11 jet, he was puzzled and bothered by her story. He took off and was soon banking north. He looked below and could see her little single engine plane heading directly toward land.

All of the Navy personnel were ready a few days later. The *Sea Charger* had been operating back in the general vicinity of *Salem’s* location for a full two days. It would remain clear of a one hundred mile exclusion area until needed to provide detection protection.

Tom and Bud welcomed the military specialists and officers aboard. The cargo hold had been converted into both a storage area as well as a bunkroom for the fifteen members of the newly extended crew.

Traveling on a non-direct course and at a depth practically guaranteed to avoid any possible detection, the jetmarine arrived on station three days later. Unmoved from its watery grave, the *Salem* was waiting for them.

It required five divers and almost four hours to rig the connecting coupler to the derelict submarine. Tom had asked that it be flexible enough to allow for motion due to undersea currents. His design and construction team gave him something that allowed the jetmarine to set down right next to the hull yet have ample footing for people to climb through with their equipment and supplies.

He was gratified to find that the little power pod had been running the air scrubbing and vent equipment during the absence of any crew, and the air—though becoming icy cold—was crisp and clean. He directed that the three larger-capacity pods be brought over first and hooked up to heating and lighting circuits.

Assuming the team could make the needed repairs, it would still require a lightning-force electrical jolt to restart the number one reactor. That would be handled by a large bank of Swift Solar Batteries on board the jetmarine feeding a large set of special capacitors.

Three hours later the bone-chilling cold had gone. It was still only about fifty degrees inside and every wall near the hull was very cold, but that was practically shirtsleeve temperature compared to what it had been.

“How long do you think it’ll take them, Tom?” Bud asked that evening.

“I’m not certain, Bud. Probably a couple days at the very least. From what I have been able to gather, a lot of the first systems that went down took others with them. My guess is that these folks are going to need to fix the obvious first, then check everything else down the line.”

“Did you see the dent in the starboard drive doohicky?”

“Yes, and I pointed it out to Lt. Commander Jackson. She told me that it could impede the flow, but that there are no moving parts in there that might have become jammed.” He shrugged.

Bud gave voice to his friend’s thoughts. “I wish we knew more about how things worked. Then we—and by ‘we’ I mean you—could come up with a whole set of genius solutions and we’d be out of here in no time!”

By the time day three came around, the Navy team had managed to get to seven of the top ten problem systems. Tom and Bud, and the rest of the 5-man Enterprise crew, felt useless and restless. Any time one of them would offer assistance, the standard answer was:

“I’m sorry, but the nature of the security surrounding this system won’t allow for outside help. You don’t have the clearance. Sorry.”

Finally, on day four Tom had had enough. He took the commanding officer aside and told her, “My people can be trusted. I am at the point where I don’t really give a damn about your security. The fact is that we found this submarine when nobody in the Navy was even going to lift a finger. We rescued the crew. Our power pods are allowing you to try to do whatever it is you are, or are not, doing. And, I am tired of being told that we aren’t allowed to help. If you don’t tell your people to let us do what we can, then I’m disconnecting and heading to the surface where I will contact Admiral Hopkins—possible by unsecured circuit—and tell him what he can do with this whole operation!”

Lt. Commander Jackson was stunned. She searched for the proper words knowing that the last thing she should do was to bark back at Tom the way he just had at her.

“Um... Mr. Swift. Tom. It isn’t that we couldn’t use help, it is just that you don’t have the training for this or the security clearance.”

“Don’t have the training? Are you *kidding* me? I build spaceships that are ten times more complicated than this submarine. I build nuclear reactors. I design and build some of the most sophisticated computers and robots in the entire world. I design and build submarines! And, you’re trying to tell me that I don’t have the *training*?”

The Lt. Commander knew she was on unstable ground. Nobody had told her about Tom’s qualifications. If what he was telling her was true, then he more than likely had more training and qualifications than her entire team put together.

What to do?

“Okay. Okay.” She was mentally racing through a number of scenarios, many ending in her dismissal from the Navy or imprisonment on charges of espionage. Finally, she said, “Okay. Let’s just say that you can help us. And, let us also say that you swear that no word gets out that I did anything other than keep you away from our equipment.”

Tom agreed to the plan so far.

“Then, what do you believe you can do that we can’t?”

He shook his head slowly and looked at her. “Lt. Commander.

Until I get a chance to see what the heck I might be dealing with, I have no idea, I might be able to pull a bobby pin out of my hair and get the reactors running. I could even figure a way of supercharging your drive mechanism. Or, I could run into a blank wall. Until I am offered the opportunity to help, I can't tell what I might do."

She nodded at the truth in his statement.

"Alright. The worst hit system right now is the command and control computer. When power went offline, it must have spiked because it fused two of the main circuit boards. We didn't anticipate that so we didn't bring replacements. If you could take a look and see if there is anything that might be done to salvage them, that would be the most help you could give at this moment."

Tom followed the Lt. Commander to the main control room and into the tight side area behind the main control stations. He first noticed the smell of burnt circuits, something he had been familiar with for over half his life. Then, he saw the two boards in question. They had been partially pulled out of their rack. The normally blue boards were scorched black. Tom could see that one of the boards had at least one component that had literally exploded, leaving a hole where it once resided.

"Any circuit diagrams available?" he asked.

"Give me a minute." She disappeared from the narrow space, returning with a thick volume a minute later. Handing it to him, she said, "Good luck!"

Tom took the boards and the volume of diagrams back to the jetmarine. Fifteen minutes later he let out a laugh and headed down the corridor to the supply room. Five minutes later he was back in the *Salem* with a pair of gleaming blue circuit boards.

The Lt. Commander stared at them, and then she stared at Tom.

He grinned and handed them to her. "Courtesy of Swift Enterprises, Lt. Commander. You see, we make these boards and supply them to the Navy. I use them in my jetmarines and seacoverters as well. What's out next little problem?"

Tom and his crew worked side by side with the Navy people for another two days before the Lt. Commander gathered them in the control room.

"I'm afraid that we've reached the point where nothing more is to be done. And, though Tom and his people have assisted us, ably so, I will add, the facts are that this submarine has more problems than we can fix down here. If there is any chance of her ever plying the oceans, then somehow we're going to have to raise her."

She looked at each member of the group.

“Down here, she’s dead and useless!”

CHAPTER 4 /

ANOTHER PLAN

AFTER THEY closed up the *Salem*, removing Tom's power pods and allowing the sunken sub to begin cooling again, the jetmarine was disconnected and the coupling device stowed in the storage room.

Before they left the area, the Lt. Commander asked Tom if she might borrow one of the aquapod suits. "I have to set the safeties," she told him.

"Are those active or passive?" he asked, knowing that the 'active' sort would be time bombs that would destroy the sub so that nobody could get any of its technology.

"They are passive. Just in case anyone gets snoopy and tries to drag her off."

As soon as she came back inside, Tom sent his craft toward the surface. Once there he contacted the *Sea Charger* and thanked them for their time. "I'm going home now. No presents for Dad," he informed them.

On the way back to Shopton, Tom and Bud discussed several possibilities. Some fanciful—raising the submarine using giant gas bags or ping pong balls—were shot down as Tom explained the deep water dynamics and pressures.

"And," he added after they talked about the gas bags, "that doesn't even consider the problems of getting the things attached, keeping them attached and the whole thing balanced, and then bleeding off enough pressure as you come up to keep them from exploding."

Bud gave a sad sigh. "It sounded pretty easy. Hollywood seems to have cracked the problems." He grinned at Tom.

"Well, Mr. Barclay. Let's assume that I can figure out all of those things like the special effects folks in the movies have. That leaves us with one big problem. Know what that is?"

Bud shook his head.

"Okay. So, we are bleeding off pressure so that the gas inside the bag doesn't over inflate as the outside pressure reduces. We get up to a point where we have let out so much of the air or gas that the bags no longer have the buoyancy to lift the sub." He extended his fingers, palm down and made a diving motion with his hand.

"Oh," Bud said, seeing the point. "Not enough lift as some point and back down she goes."

"Right!"

When Tom brought up the matter with his father that evening, the older Swift rubbed his chin and considered the problems for several minutes before commenting.

“If we assume that there is no way to provide enough attached lift to bring the *Salem* all the way up, what about bringing her to a depth where you might get some slings under her and hoist her the rest of the way up?”

“Using the *Sea Charger*, Dad?”

“That’s what I was thinking. What’s your opinion?”

“Hmmm? Well, I’ll have to run a ton of simulations and do all the computations, but if we could attach, oh... a bunch of those heavy rubber bags some companies use to ship petroleum and other liquids—I think they hold a couple thousand gallons—and use a light gas like helium, we might be able to get her off the bottom. Hang on a minute.” He jumped up and ran upstairs to retrieve his tablet computer.

Calling up a scientific calculator program he entered numbers and pressed various function buttons for more than five minutes.

“Okay,” he said looking up. “Let’s say that the sub displaces about seventy-five hundred tons. And the bags can hold only about fifteen hundred cubic feet of gas. That means that at the depth the *Salem* lies each bag could only lift about five tons.” He looked discouraged. “That means we’d need around fifteen hundred of them.” He shook his head.

“Could you build something larger, Son?”

“Oh, sure, but I also did the math to figure out what it would take to inflate the bags. At that depth we’d need to take down the gas at a pressure slightly over twenty-one thousand PSI.”

They agreed that this was not going to be an avenue to continue exploring.

“Could you get two heavy-lifting cranes on the deck of the *Sea Charger* and bring her up from the bottom?” Damon Swift asked his son.

“I was thinking about asking the Navy to hire those two giant floating cranes they made in South Korea a few years back. They go all over the world and have the capacity...” his voice trailed off.

“Having a thought, Tom,” his mother asked as she and Tom’s sister entered the living room with dessert.

“Well, sort of. I had a thought about a project Dad and I are involved in, but it just hit me that the secrecy surrounding it means my idea is kind of moot.”

Anne Swift knew better than to ask for any additional information from her two men. They were frequently involved in secret projects.

Sandy also knew better than to ask anything. She wasn't happy about it, and gave Tom a scowl, but she held her tongue.

The next morning Tom made several calls—radio and phone—before calling a meeting of several Enterprises engineers.

He outlined, in broad terms, the problem at hand, using the aft section of the *Fairfax* as a potential target. After a half hour of discussion it was decided that the *Sea Charger* could be outfitted with the two cranes.

“Of course, skipper,” one engineer said, “they’ll need to be mounted at the centerline or just the first hint of lifting something that heavy and the *Sea Charger* would tilt over.”

Tom agreed. He thanked everyone and called back to the radio room.

“Can you get me connected to the *Sea Charger*, please? I need the Captain.” He waited three minutes before his desk phone buzzed. “He picked up the receiver.

“Hello, Captain. It’s Tom. I wanted to thank you and the crew for the work out in the Atlantic. Now, I’ve got an idea and I wanted to run it past you.”

He told the man about his plans to mount two cranes on the deck. Without naming the submarine he hinted that these could be used to raise and lower heavy objects.

“So, Tom. Might you be wanting to embark on a deep sea treasure hunt?” The Captain asked. “I know for a fact that there are two large cargo ships that sank near one another about fifteen and, let’s see... I believe ten or eleven years ago. In fact, when we were out cruising a week or so ago, we passed right over where they supposedly went down.”

Tom grinned. He knew the Captain understood the nature of the mission but was taking precautions in case of any interception of the radio call.

“That’s right, sir. The owners have asked us to see if we can raise the bridge sections. Can you make port out at Fearing in five days?”

It was agreed and Tom thanked the man and hung up.

Fearing Island was not only home to the Swift’s space port and submarine base, it also featured more than a dozen cranes that rolled around on tracks and were used for everything from lifting rockets up and into position for launch to most of the underwater craft stationed there.

He arranged for the two largest ones to be prepared.

Five day later when the *Sea Charger* put into port, they were ready. Two other cranes worked in tandem to lift and position each of the heavy lifters that were then bolted and welded to reinforced platforms that had been added to the deck of the massive ship. The addition of giant pulleys and cable guides on one side of the ship would allow the centrally located cranes to lift directly up on one side.

The Captain has asked Tom, “Why don’t we just hang one over each side to balance things?”

He was slightly chagrined when the young inventor mentioned how difficult it was going be to maneuver cables that were right next to each other, let alone cables separated by the width of the aircraft carrier-wide ship.

While the ship was being prepared, Tom contacted Admiral Hopkins and apprised him of the progress. In the end he added, “It would be wise to let us take Lt. Commander Jackson out to defuse the bo— uhm that is, the *safeties*, sir. She has some experience with using our diving suits and is the one who set them in the first place.”

He agreed and said he would arrange for her to accompany Tom and Bud out to the site to secretly disarm the safety systems one day before the arrival of the *Sea Charger*.

“If she could be here the day before that, sir, then I can show her the seacopter we’ll be using.”

Tom’s seacopters were amazing vehicles capable of flying at high speeds over water and land and submersing in any body of water where their reversible blades—located in the middle of the structure—could drive them down and through the water, also at amazing speeds.

Tom was pleased when the report came through a day early letting him know that the cranes were now in place and firmly attached to the deck of the *Sea Charger*. As a test, he asked that they be used to pick up the dockside cranes that had been used to install the deck cranes.

Although only a quarter the weight of the submerged submarine, the test went well and Tom declared that portion of the mission to be complete and a success.

Lt. Commander Jackson arrived right on time and ready to get going.

It would be, she explained, about a two-hour operation and would require one other diver to assist.

Bud raised his hand. “That will be me, ma’am,” he said. When she

glanced at Tom, Bud added, “Tom needs to stay all safe and snugly sound inside the seacopter keeping it in position. That’s his baby and he’s the best. I’m a great diver, very athletic, good looking to a fault...” he grinned at her, “...and I had my hand up first!”

“Okay. I brought along a dummy control panel that we need to go over. Everything must be done in unison and I can’t take the time to teach you all the hand signals.”

“Oh, that won’t be necessary,” Tom told her. “The suits have a powerful, voice-activated two-way underwater communication system. All encoded and disguised as underwater life, so it’s secure. You’ll be able to talk freely.”

She considered this for a moment, then commented, “Sounds fine, but we still need to go over and over the steps. If there is any foul-up, we’ll have about three seconds to make peace with ourselves and our deities before the charges go off. Understood?”

She looked pointedly at Bud.

“Absolutely,” he said, gulping and nodding at her.

They spent the rest of the afternoon going over each procedure and practicing everything step-by-step until Bud was certain he could do it all in his sleep.

Even when the Lt. Commander insisted that they begin at random points in the procedures, he was right with her. Finally, she asked him to perform all of his steps, solo, in reverse order.

Bud smiled, then took a deep breath and ran through everything perfectly.

For the first time, Lt. Commander Jackson smiled. “Great job, Bud. Really great.”

She was even more effusive once she boarded one of Tom’s newest seacopters, *The Marianas*. As she toured the medium-sized 8-man vessel phrases like, “absolutely astounding,” and “better than science fiction,” came pouring out of her mouth.

Tom explained the history of the seacopters beginning with the first that was half-lost on its maiden voyage all the way up to the large double-rotor class seacopters used to ferry equipment all over the oceans of the world.

“Our largest carries a crew of just three plus a cargo weighing in at over thirty-five tons,” Tom told her. “The front section is smaller and lighter so the forward rotor is about sixty percent the size of the aft one.”

“And,” Bud added, “the entire back half opens up like a giant clam shell so loading and unloading is a cinch. Even under water!”

“Couldn’t you just use a few of these marvelous submersibles to bring *Salem* up? I mean, if they have enough power to actually fly—”

“Unfortunately,” Tom began, cutting her off, “we can’t use two of these in close proximity. They cause a turbulence that can combine to draw the seacopters together.”

“All from the downward forces?” she asked.

“Actually, no. The downward force passes numerous ultra-thin vanes that stops any swirling. It’s when we need to descend or remain at once depth. The rotors reverse and it’s the upwards suction of water that can cause the problems.”

“Tom and I had a real crunch up in two of these before we figured out they need to stay about four hundred feet apart,” Bud said.

Lt. Commander Jackson nodded in understanding.

The following morning the three, along with Zimby Cox as a back-up pilot, boarded *The Marianas* and headed south. The plan was to head away from the site of the submarine, go underwater somewhere near Bermuda, and hug the ocean floor all the way to *Salem*’s location.

Their route required almost twenty hours. Even with Zimby, Tom and Bud sharing six-hour shifts, everyone was tired when they finally arrived at the stricken submarine. A quick circle of the sub showed no sign of any intruders or curious visitors.

In spite of the Lt. Commander’s desire to go out immediately, Tom wanted everyone to have a break. “Just six hours, Lt. Commander Jackson,” he said.

She agreed on the condition that she and Bud would make one final run through of all the procedures before taking their rest.

“Oh, and while we are away from the Navy and other officers, please call me Angie. All of you,” she requested.

Their practice run went smoothly and accurately. She and Bud went to separate bunkrooms and both fell immediately asleep.

When the initial six hours were over and Tom had gone to check on his friend, Bud was snoring soundly. Tom decided to wait on waking him until he had visited the Lt. Commander. Angie Jackson was, if anything, snoring even more loudly than Bud.

“I’m making an executive decision,” he informed Zimby as he returned to the small galley off of the mess hall.

“Is it an important decision, skipper? Fate of all mankind and that sort of thing?” Zimby asked with a big smile on his face.

“No. It’s just that Bud and Angie are so soundly asleep that I

believe it is best to let them wake up naturally.”

“Naturally,” Zimby agreed.

Almost three hours later the Lt. Commander wandered forward to the control room where Tom, Bud and Zimby were discussing the latest sports scores.

“If you were an enlisted man or a junior officer I’d have you up on charges,” she declared in a loud voice. She walked over and stood directly in front of the shocked young man. Reaching out with her left arm she placed a hand on Tom’s shoulder. “Thank you. I needed that. It’s been an exhausting three weeks for me,” she finished in a much softer tone, then leaned over and gave Tom a slight kiss on the cheek.

He turned bright red and was still speechless even Bud popped his head into the small room a minute later.

Ten minutes later she and Bud had suited up in the skin tight inner suits Tom had designed to go with the mostly see-through aquapod suits and were climbing into the outer suits.

While Zimby worked with Bud to do systems checks, Tom assisted Angie Jackson.

Moments later they exited the airlock and began the hundred-meter swim over to the submarine.

“Please back your seacopter off at least a mile,” the Lt. Commander requested. “Just in case.”

Though Tom wanted to remain close by, he followed her request and soon the *Marianas* was a small speck of light in the far distance.

After asking Bud to turn away, she keyed in a lengthy code that swung open a hatch just aft of the sail.

“Well,” she said brightly. “At least that’s one thing that has gone right.”

As she entered the small chamber inside the sail Bud asked, “Does that mean we’re okay for now?”

Her rueful chuckle told him all he needed to know. If things hadn’t gone well, they wouldn’t be having this conversation. He pulled himself in behind her, pushing the hatch closed.

She would have asked him to turn around again for the next code sequence but even she realized that it was too small a space for him to do that. This small chamber was designed as a single-man airlock.

They practically fell into the upper control room when the inner hatch unlocked. Without a major source of power there had been no way to pump out all of the water. Lt. Commander Jackson was

actually surprised that the emergency systems had enough power to draw off about two-thirds the water and allow them to enter using the keypads.

A similar thought had hit Bud at the same time he was picking himself up from the deck.

“Must be since everything else was shut down and no heat or air circ was going, Tom’s power pod recharge of the emergency batteries left us enough electricity for our purposes,” she told him.

They had to perform the disarming sequence five times in various locations inside the sub. Everything went, as Bud later told Tom and Zimby, “Exactly the way you want it to if you like living!”

Tom piloted the seacopter several hundred miles south before heading to the surface to make a narrow-beam radio call to report their status. His Private Ear system was used with the extra precaution of first sending the signal straight up and south to the Swift’s Outpost in Space. From there it was beamed directly to the grounds of Enterprises.

“That’s marvelous, Son,” Damon Swift told him. “Admiral Hopkins suggests that you stand by at the location and wait for *Sea Charger* to arrive. What do you think?”

Tom agreed that it was a wise plan of action.

The *Sea Charger* arrived five days later having made top speed to a point six hundred miles to the north before heading south at a reduced speed. Arriving just after nightfall, Tom surfaced and climbed aboard.

He personally took charge of the twin cranes and directed the men operating each one to quickly lower the eight large cables and turnbuckles that would be attached to the eight lifting points on *Salem’s* top deck.

Zimby, Bud and Lt. Commander Jackson took the seacopter back down and the Navy officer and Bud went outside to await the cables.

Four hours later and with only a few maneuvering changes to get everything aligned, they had the cables firmly bolted to the sub.

Completely exhausted from the operation, Zimby took them back to the surface while they got out of their diving gear and back into clothes. They arrived on the deck just as Tom was giving the orders to begin the lift.

For almost ten seconds the winches moved backwards almost imperceptibly. Then, Tom asked for an increase in winch speed. Inch by inch the cables came back in and rolled slowly onto their spools.

“Is the deck pitching?” Lt. Commander Jackson asked Bud.

“A bit, but I’m sure Tom has this all planned.” Then, seeing a look cross his best friend’s face, Bud changed his mind. He was about to say something when the entire ship shuddered.

“Stop! Stop!” Tom yelled to the crane operators. “Stop lifting! We’re going over!” Both men could see that the *Sea Charger* was, indeed, listing to the side over which the cables were hanging with their heavy cargo. They let the levers go back to neutral and the cables stopped moving.

“Okay,” Tom called to them. “Lower it back down. Slowly... slowly...” fifteen seconds later the cables went slack.

The *Salem* once again sat on the bottom of the Atlantic Ocean.

CHAPTER 5 /

IF WE BUILT IT...

“WHAT THE HECK happened, Tom?” Bud asked as he ran over to see what was going on.

“I goofed, big time,” Tom told him. “Even though this ship is large enough to distribute the weight of the sub, I completely forgot that it will have suctioned itself to the floor by now. What an idiot!”

He explained that the enormous weight of the submarine combined with the curved surface would have allowed it to sink deep into the muck and silt on the ocean floor.

“Basically,” he concluded, “the whole thing will have formed a complete seal with the floor. It’s not exactly a vacuum seal, but it acts like one. It will take maybe three times the lifting power to break that seal. Then, unless we can drop the lift back almost immediately to a safe and reasonable level, it will yank the sub up so harshly that we could snap the hull. Then we’d really be up the creek.”

“Is there anything we could do down there?” the Lt. Commander asked as she strode over, catching the end of the conversation.

“We can give it a few more tries,” Tom suggested, “and maybe we can break the suction trying one end first and then the other. But I think we are going to need big grapnels to go around the hull and dig out some of the muck in the process. Even then we might have to rig up some bubble bombs.”

Bud looked puzzled while the Lt. Commander looked shocked.

“Uh, Tom?” Bud asked, scratching his head. “I’m just a simple athlete and test pilot from the boondocks of San Francisco, California. What are these bubble bombs of which you speak?”

Tom looked at the Lt. Commander. She was contemplating what she could tell him. Finally, she told Bud, “They were a special project the Navy worked on about a decade ago. The idea was to create something that could make a massive amount of bubbles in the water without inducing much, if any, shockwave. You see—and this stays between us—the Soviets had developed a way to discern the difference between our attack submarines and the decoy noise devices, what we called ‘Howlers,’ that were designed to confuse torpedoes. We tried just ejecting what were basically underwater grenades, but they figured out that a simple pressure detector could see through that. Bubble bombs made just enough noise to attract the torpedoes and when the torpedo passes through all the gas inside the bubbles, they get knocked off track.”

“Basically, flyboy,” Tom continued, “once a torpedo hit the air pocket caused by one of these, it took a nose dive and could never recover.”

Bud’s face brightened. “I get it. Torpedoes need water to travel through and are useless in air. Right?”

Both Lt. Commander Jackson and Tom nodded.

“Okay,” he continued, more cautiously, “so, how would those help us now?”

Tom held out his left arm parallel to the deck. “Imagine this is the sub. It sinks, like this.” He knelt down and laid his arm on the deck. “As it sits here on the bottom it adheres through a combination of the downward pressure and cohesion. To break that bond, it takes either enormous lifting power—which just proved to not work very well—or something underneath to separate the sub from the sea floor.”

He moved his other fist so that it was slightly under his forearm. Suddenly opening his hand and making a ‘whooshing’ sound, he said, “Put a bubble bomb or two or three under there and set them off, and the air basically shoves the sub up and away.”

“So, it breaks that cohesion stuff?” Bud asked.

The Lt. Commander nodded, and then finished the story with, “And, assuming that the bubble bombs are just the right size they could do the trick without causing damage to the sub.”

Tom stood up and signaled to the crane operators to shut down for the time being. Then, he, Bud and Lt. Commander Jackson re-boarded the seacopter and sank out of sight.

The process of unhooking the sub from the cables took considerably less time that hooking them up. Lt. Commander Jackson returned to the interior of the submarine to set the destructive devices.

As she shook her hair out, back inside the seacopter, she remarked, “As much fun as it is diving deeper than any other Navy diver has ever been, I hope I only have to do this once more!”

“I’ll second that,” Bud added.

By the time they reached the surface, the *Sea Charger* was already over the horizon on its way to a new point hundreds of miles north where they would set up and pretend to be looking for sunken cargo ships.

Tom headed the seacopter back toward Fearing Island. There was little chance of them being spotted before reaching safe haven at the island base.

The Lt. Commander bade then farewell and climbed aboard a Navy helicopter, departing less than ten minutes after they docked.

As Tom, Bud and Zimby walked toward the bunkhouse where they would grab a nap before heading home, Zimby asked, “So, what now?”

“Yeah,” Bud said. “I was thinking just that. Anything zooming around in that brain of yours?”

Tom let out a deep breath through his nose before responding. “I’ve got to see if the Navy is willing to let me try the bubble idea. Sorry, Zim. I can’t tell you anything more about that until I get clearance. Bud? You overheard my conversation with the Lt. Commander and you have to keep that as U.S. Military Secret. Okay?”

Bud nodded. “Aye, aye, skipper!”

“Anyway, Zim, I had an idea to resurrect an old technology to use to unseal that sub from the bottom, but I’m not certain whether the Navy will let me use it, or even if I can make it. Could do more harm than good if I don’t get things exactly right.”

“I’ve got every confidence,” Zimby replied. “They should, too.”

When Tom reached Admiral Hopkins the next morning, the Navy man suggested a face-to-face conference. “I’ll come up to see you,” he suggested. “Time to stretch my legs. I hate sitting behind a desk all day long.”

The meeting was arranged to take place two days later. In the meantime, Tom plunged into preparing facts, figures and perhaps even a small-scale demonstration to try to sell the idea.

Arvid Hanson was called in to Tom’s office to discuss the creation of a miniature submarine. “She needs to be about ten feet long, Arv,” Tom told his chief model maker. “The scale weight would need to be about forty-six hundred and ninety pounds, but make this one just about five hundred. The point is to show the technological possibilities, not actually raise the thing.”

Seeing Arv’s eyebrow rise in response to his comment, Tom hastened to add, “I’m going to demonstrate a new underwater technology for clearing old sunken shipping.” That was the cover story the Government had provided for anyone who needed to work on any aspect of the project but did not have the need to know precisely what the project entailed.

He next asked that one of the deeper submersion tanks be prepared with a sandy and silty layer on the bottom of about two feet. “Lay down an eight by sixteen foot steel plate before dumping in the dirt,” he requested, not wanting any chance of harming the tank.

Finally, he turned to the creation of a bubble bomb. There had been several attempts at making them before. The first methods involved explosives. These proved to be useless as the concussion from the explosion completely went against the purpose of the device. The actual test bombs consisted of a cluster of high-pressure tanks into which a mixture of gasses were kept. A small, central device would puncture all the tanks releasing their contents in under three seconds.

This, while partly effective, ultimately proved to be a failure at deterring torpedoes. Five of six tests reportedly let the dummy torpedoes through the bubbles and into the target. The sixth had been only marginally successful.

After two years of research, the Navy quietly pulled the plug on the project and locked away all test data.

Many details of the project were still secret, but Tom felt he had a complete understanding of the concept and of the attempts.

“I need to come up with something that is quick release without being explosive, fairly quiet, and provides a massive amount of bubbles for the given size of the device.”

His research let him in one direction that seemed promising. He spent several hours creating a small yet strong tank into which he inserted a special detonating system. Then, he pumped in a fairly volatile liquid and pressurized the system.

Bud, Sandy and Bashalli arrived just as he was packing the tank into a padded Tomasite container.

Bash gave Tom a hug and a kiss while Bud and Sandy looked on, tutting.

“Do you see that unabashed—pardon the expression—public display of affection, Sandy?” Bud asked in mock shock.

“Well, if you ask me, Budworth, it’s about time a little PDA was directed my way. *Don’t you think?*”

Bud swallowed, grinned meekly, and gave Sandy a bear hug.

“I meant public display of affection. Bud. Not public deadly asphyxiation!” She pushed the athlete away, playfully.

“What is that thing you are packaging, Thomas?” the beautiful Pakistani girl asked.

He gave her a shrug along with a lopsided grin which she immediately recognized as his ‘sorry but I can’t tell you anything so please don’t press me’ face.

“Forget that I asked,” she quickly added.

Tom kissed her on the forehead. “Thanks, Bash,” he whispered to her. “You’re the greatest.”

“I know. And, beautiful, and warm, and the most important thing in your life, and the woman you are about to take to dinner as promised on this very day one week ago.”

Now, it was Tom’s turn to gulp. “Oops! I forgot. Can I catch up with you three at the restaurant in about an hour?”

Sandy looked at her wristwatch. “It’s five forty-five right now. You can be at Piccolo’s no later than six forty-five? Promise?”

Tom nodded. “I just need to drive something over to one of the test tanks, run the experiment which takes less than a minute, and then I’m out the door. Or, out the gates. Okay?”

Sandy looked at Bashalli who looked back at Sandy. Some silent message was passing between them. Finally, they both nodded and said in unison, “You promise!”

“Pinky swear plus all other little digits he has,” Bud answered for his friend. “Come, ladies. Let us go pick out the best table in the house, arrange for some romantic and expensive violin music to be played at our table, and let the professor get his little experiment finished.”

Tom picked up the case and followed the other three out of the office and up to the surface. They parted company with Tom climbing into his sleek sports car and Bud and the girls getting into his convertible.

Arriving at the test tank, Tom asked the on duty technician to assist in running the cables back to the control room. Tom used a length of nylon line to lower the bubble bomb into the tank, and then a long aluminum pole to push it over to the middle of the tank.

Returning to the control room, he was handed the simple safety key and switch.

“Turn on the pressure sensors, Barry,” he requested. Moments later the tech gave him a thumb’s up.

Tom opened the door and glanced all around the tank. Seeing nobody who might have just arrived, he turned the key and depressed the button.

Nothing.

He turned the key back and forth and pressed the button again.

Nothing. Again.

“I’m going to check on the connections,” he told the tech. He pulled off his shoes and socks, then changed into a swim suit in one

corner of the room. He walked outside and was preparing to dive in when it occurred to him that he had not shut off the safety key. He hurried back in and did that, then plunged into the water.

With a sudden *whoosh!* the water practically exploded around him and he was picked up and hurled into the air.

Tom opened his eyes. Barry, the technician, was leaning over him looking worried.

“You okay, skipper?”

“If I still have both arms, two legs, and my nose is in the middle of my face, then I think I am,” Tom replied gingerly rising to his feet.

“What happened? Did you accidentally trip some sort of bomb?”

Tom thought about what to tell Barry. “Well, you didn’t hear any explosion, did you?” Barry shook his head. “I guess I just had a rupture in the tank of experimental gas I put down there. Sorry for the scare. Can you have the tank pulled up and sent over to my underground lab, please. I’ll take a look at it tomorrow.”

While the technician was calling for assistance Tom towed off and changed back into his clothes. He left as two other Enterprises employees were pulling up. He quickly told them to make certain they removed every piece from the test tank.

When he arrived at the restaurant, the other three were shocked to see the big smile on his face.

“Okay,” Bud told him looking at his watch. “You’re a whole ten minutes early and we never expected you to get here on time, but do you have to be giving us such a big, self-satisfied smile about it?”

Tom sat down and picked up his menu. He still had the smile on his face five minutes later when their waiter took their orders. With the others sitting there staring at him, Tom relented and told them that the experiment he performed before coming to dinner had been a rousing success. He did not tell them about the extended delay or about his sudden trip up and out of the tank on the giant wave of bubbles, however.

The next morning, Bud pulled through the main gate just a minute after Tom. He parked next to the inventor’s car and jumped out as Tom headed for the doors to the underground hangar. “Okay. Spill. Something went on with your little experiment, didn’t it? You’ve got a big bruise on your left arm that wasn’t there yesterday.”

As they walked down the stairs Tom told him all about what had happened. Then, pointing at the pile of junk sitting on his workbench he said, “That’s what’s left of my test bomb.”

Bud whistled. He walked over to the bench and examined a few twisted pieces. “What did this?”

“First, let me ask you a question. Do you remember those rocket belts that were first developed back in the sixties?”

Bud nodded. “Yeah. James Bond and all that.”

“Correct. And, do you know what powered those?”

Bud shook his head. “Some sort of rocket motor?”

“Well, not really. Very hot, but nothing burning. The tanks were filled with highly concentrated hydrogen peroxide. When passed through a special filter the peroxide expanded to hundreds of times its volume and shot out the nozzles. Lots of steam and vapor and a pretty good jolt of lift, but the tanks ran out within a few seconds.”

Bud shrugged, trying to prompt the inventor to say more.

“What I did was to create an all-in-one tank and activator that would expose the peroxide to the same material used in the rocket belt filter on command. Then the enormous pressure built up, ruptured the tank and came out as lots of hot bubbles.”

As he told Bud about his unceremonious exit from the tank and his thoughts on what might have caused it, he began the process of building another of the devices. “I’ll make the tank walls a little thinner in several places around the circumference of the tank so it ruptures faster. I think I need more of the platinum in the activator, too. The important thing is that it worked. From a one cubic foot tank I am fairly certain I generated about eight hundred cubic feet of bubbles.”

By the time the Admiral arrived, Tom and Bud had finished building the second small bubble bomb. Bud agreed to take it to the test tank while Tom met with the Admiral.

“Just one thing, skipper,” he said as the Admiral’s jet was touching down. “If it works, will they agree to let you use it?”

Tom could only shrug. “Unless the Navy has a better idea, flyboy, let’s hope so.”

After hearing all of Tom’s fact and figures accompanied with a slide show indicating how the devices would be used, Tom suggested that they walk out to the tank.

“You don’t mean to tell me that you’ve actually *built* this device?” the Admiral asked, plainly shocked. “I mean, I thought you were asking for permission to build one. Not that you’ve gone ahead and already put it together. This is—” He couldn’t seem to find the words.

“But, Admiral Hopkins. I assumed that you’d be pleased. I mean, I know that the tests a decade ago were a failure, but—”

“Good God no, Tom. Don’t you see? We only let the Soviets *think* they were a failure. They’ve been part of our arsenal for years. Oh, dear. How many people at Enterprises know about this?”

“As far as the total package, just two of us. Plus one technician that witnessed a test. But, he didn’t know what he was watching. He believes it was an unsuccessful test of a new underwater air tank.”

The Admiral seemed to calm down. “Okay,” he said taking a deep breath. “You’d better take me out there and demonstrate our new *air tank*. For the sake of secrecy, it is a ‘pressure to the bursting point’ experiment. Okay?”

Tom agreed.

On the walk out, Tom told the Admiral how his device worked. The Navy man was left shaking his head in amazement. “That’s pretty much how ours work. Next thing you’ll tell me is that you’ve miniaturized it to the size of a football instead of the eight foot by two feet of ours.”

When Tom didn’t reply, Admiral Hopkins stopped. He turned to face the inventor. “Which... is... precisely... what... you’ve... done. Am I right?”

“Yes, sir.”

The Admiral winced. “Did you break the thousand cubic foot mark?”

“No, sir. Just a bit under,” Tom admitted.

Nodding, the Admiral began walking forward. They reached the tank a few minutes later. Tom armed the device and pressed the button. This time the delay was only about one second. With no other sound than the water soaring up and splashing back down, the device fired off perfectly.

Tom thanked the new technician and asked that the remains of the tank be taken to his lab.

He and the Admiral walked back in silence. Instead of heading back to Tom’s lab they went into the Administration building and up to the shared office of Tom and his father. After shaking hands with Damon the Admiral came straight to the point. He told them that the Navy was going to be most interested in Tom’s new device but until arrangement could be made, there were to be no others built and all plans were to be considered top secret.

“I am fairly certain I understand the reasons, Admiral,” Damon told him, “but I am really curious as to whether you plan to let Tom use one or a few of these to help unstick the *Salem* and to try to raise it from it’s current grave site.”

“I’m sorry. While we do want the *Salem* back up and even running again someday, keeping this capability a secret is of higher priority. Using it to lift a submarine is far beyond possibility. I’m sorry.”

Twenty minutes later and with all of Tom’s drawings in his possession, the Admiral departed Enterprises.

Damon rested an arm across his sons shoulders as they watched the Navy jet climb into the mid day sky. “What’s your next step, Son?”

“I guess that would be Plan B.”

“Plan B? And that is...”

“Well, I’m going to try to repurpose the old *Geotron*. Turn her into a sort of plow or ocean floor tractor. Maybe burrow under the sub and push up from below, then lash it to the top and drive all the way back to solid land.”

“Do you think that’s possible?”

“I don’t know if it is, but I guess that I’m going to find out.”

Damon looked at his son. Tom could do marvelous things, but he was sometimes a bit impetuous.

“Do you think the *Geotron* can take the weight?”

“If not, *you’re going to have to dig me out from under the sub!*”

CHAPTER 6 /

A SUDDEN TURN

DAMON SWIFT looked at his son in disbelief. Then, he considered that most of what Tom set out to do seemed crazy and impossible or wildly impractical at first, but often turned out to be the best way to do whatever it was he was attempting.

“Quite the novel approach,” he finally said.

“Well, it’s a bit far-fetched,” Tom admitted, “but I believe that I can use her to at least get under *Salem* and break the cohesion seal. If I can do that and then get the *Sea Charger* back on station to lift her up I may have hit on the one-two punch we need for this.” He looked pleased.

Damon tilted his head to one side and pursed his lips. “Have you given consideration as to how you’ll get the sub back to U.S. waters and into some safe port?”

“I’m hoping to work with the Navy to figure out a way to blow the ballast tanks just enough to give her neutral buoyancy. That way we can bring her up to, oh, maybe three hundred feet and then tow her back in using a Jetmarine.”

“I see. And, if that isn’t possible?”

“Originally I had wanted to just pull it up on the deck of the *Sea Charger*, but Admiral Hopkins forbids that. He says it’s too out in the open. I tried to tell him about the camouflage capabilities we, uh, ended up with when we stole her back, but he didn’t want to hear about it.”

“Just remember, Son. The *Salem* belongs to the Navy and it’s entirely their call how she is handled. If you want to be part of the recovery, I think you need to get used to the fact that you’ll be doing things the Navy way, not the Tom way. Understand?”

“Yes. I do,” Tom said with a small shrug.

“Actually, I’m inclined to be a little relieved. What I mean is, now that we know the military considers a device like your bubble device to be part of their defense, and given that it is referred to as a type of bomb, it is more to my liking that we are going to avoid it.”

Tom knew, and mostly shared, his father’s opinion regarding weapons both offensive as well as defensive. For almost all of Tom’s life, no Swift employee carried a weapon, not even their security force. No Swift expedition went out armed. Intelligence and effective escape had kept them safe.

Even Swift inventions eschewed weaponry, unless absolutely called for by a military contract—and then only for the U.S. Government and no other foreign customers.

That had changed more than a year earlier when Tom had discovered a Swift invention from several generations back. The original Tom Swift—for whom Tom was named—had developed an electric rifle capable of firing a bolt or ball of electricity strong enough to kill an elephant or blow a hole in a stone wall. And, though it was also capable of sending out a small globe of glowing lightning that could be used for illumination—like an electrical flare—it was first and foremost a deadly weapon.

Tom had designed a less powerful, hand-held eGun that could be set only to stun an attacker. It had led to several arguments between father and son, but when it was used to rescue Sandy Swift, Bud Barclay and Bashalli Prandit from kidnappers, even the older inventor had to admit it was effective without damaging human life.

“The thing is, Dad, it really was only jokingly called a ‘Bubble Bomb.’ Officially it was termed a ‘Non-Explosive, Sub-Ocean Defensive Barrier Generator.’”

Damon Swift nodded. “I seem to recall the original project, even though we were not asked to participate. Okay. I see your point. So, if it isn’t a weapon, and is simply a defensive measure, I will make sure the Navy and even the Department of Defense understands that we weren’t trying to undermine anyone; you were simply building the most probably effective way to unstick that submarine.” He smiled at Tom.

Tom walked over to his father and held out his right hand. The older man took it and shook it warmly.

“Thanks, Dad. And, that really *is* the truth, by the way. I only based my device on rumors and supposition as to how it might function.”

Five days later the word came down through official Government channels that Swift Enterprises not only never did build anything, they were also strongly requested to not attempt to build *that* which they had already ‘not built.’

“Plan B?” Bud asked late that afternoon when he dropped by the large shared office. “Is that the piggy back option or is it the one where you design pressure suits for a team of twenty underwater mules to drag it out of there?”

“It’s the *Geotron* option. And, though I like the idea of underwater mules, I plan to dig under the sub and come up to sort of push it off the bottom. Then, if we still can’t get it hooked up and pulled to the surface, we just might have to carry it home.”

Bud looked at Tom. He generally could tell when the young inventor was pulling his leg. After all, Bud was the king of leg pulling around Enterprises. He was especially famous for his teasing of Enterprises chief chef, Chow Winkler. This time he wasn't certain. After a few minutes of watching Tom tinker with some sort of small gripper he had been working on, Bud made a decision.

"It won't work. Will it? I mean, we had a blast in the *Geotron* exploring all of that underground stuff. And, I recall how much you built it to take pressures. My guess is that it still isn't powerful enough to move with that huge Navy tube strapped on its back."

Tom looked at his friend and slowly shook his head. "No. You're right. It's not sturdy enough. I've been running some simulations in the computer and they all tell me that no matter what we do to the *Geotron*, all the weight in top would push it right down into the muck."

"Oh. Where does that leave us?"

Tom considered for a moment before answering. "I still think we can use her to dig under the sub. Only, now I'm thinking that we dig three or four perpendicular tunnels under the *Salem*. That might just give us enough area of broken cohesion to free her."

"Tom? Look me in the eyes and give me the lowdown on this cohesion thing. Remember. Little mind needs little words."

"Alright. Have you ever filled a glass with water, even above the top rim?"

"Sure. Accidentally *and* on purpose. Why?"

"Did you ever take a look at it from the side?" Bud thought and then nodded. "The water was still in the glass even though it extended above the rim. That is due to cohesion. The water wants to stick to itself and to the glass so much that it refuses to let go and dribble over the side until there is so much water it can't hold onto itself."

"Oh. So, why does water form drops? Is that this cohesion thing, too?"

"Precisely. People centuries ago thought that water or milk or most other liquids formed an instant skin that kept everything together in a round ball. Then, one clever scientist gave that tendency a name."

"Cohesion!" Bud exclaimed, triumphantly.

"No, Bud. The man who discovered it called it Barbara Sue Lockhart, and she dubbed it Lockhart's Stickiness... *of course* it's called cohesion! Anyway, it's also cohesion that lets water form bubbles. Otherwise, a bubble would have all sorts of dribbles and

oozing coming through the sphere. Same thing with water drops. So, taking it one step further, cohesion can be almost adhesive at times. You know. Like if you put a playing card over the filled water glass and turn it over. Nothing drops out. Given a large enough area that cohesive adhesion can be almost unbreakable without exerting tremendous force.”

“Give me another crack at this, skipper. So, if my understanding is on the right track, if you dig under the sub and break up the total area of the stickiness, then it should take a lot less force to pull it away from the bottom.”

“You’ve got it, Bud. Head of the class!”

Damon Swift walked into the office near the end of their conversation. He added his praise for Bud’s grasp of the concept, and then asked, “Does this have anything to do with using the *Geotron* to dig under the sub?”

“Yes, Dad.” He described how he was now thinking about presenting the Navy with a proposal to use a combination of the *Sea Charger* along with the *Geotron* to try to free the submarine.

“But, how does it get brought back to port, Son?”

“If the Navy won’t let us pull it up on deck, and if the ballast tanks can’t be made to expel enough water to make her neutrally buoyant, then the only thing to do is swing the cranes around to the aft part of the *Sea Charger* and drag her in underwater. Except—” a new look clouded his face, “—now that I think about that, how do we re-rig the hoist cables so that the sub doesn’t want to be dragged sideways?”

“Hey, skipper. I know now probably isn’t the time to ask about it, but what is that claw thingie you were working on in your lab?”

“Huh? Oh. That. It’s just what it looks like. A mechanical claw for gripping things. Before I knew that the *Salem* has those connecting points I thought we might have to go down and get a good grip on her with what amounts to a giant pair of pliers. Why?”

Bud wasn’t used to being put in the spotlight. He wasn’t certain if he might be bringing up something old and discarded, or some new idea.

“If you can get the sub unstuck, and the *Sea Charger* can get her up near the surface, couldn’t you use one of those gripper claws to grab the nose of the sub and sort of drag her along behind? I mean, the *Sea Charger* still holds it up, but a cargo jetmarine or even one of the larger seacoasters could play out a cable and sort of drag it. Together.” He looked from Tom to Damon and back again.

“You would already have the submarine coming up parallel to the port side of the ship, Son. Bud may be on to something. I’d advise

giving it some consideration.” He glanced at his watch. “Oops. I’ve got to run. I’m hopping down to Washington for a conference with the Department of Transportation. It seems that they were so impressed with what you did with the transcontinental bullet freight train system they want our advise on several additional projects. Bye.” Seconds later he was out the door leaving Tom and Bud.

“Stupid idea, Tom?” Bud asked.

“Not in the slightest, Bud. In fact, the only stupid thing about it is that it was staring me right in the face and I didn’t see it. Thanks for catching it. It just might work!”

“You know, Tom. It just might work,” Admiral Hopkins stated two days later when he met with the young inventor back at Enterprises. “And, by the way. I wanted to apologize for the rather brusque and abrupt end to our meeting the other week. Your little... uh... gizmo really took me for a loop. And, what really shocked my socks off is that you just casually put together a better version of what the Navy has spent tens of millions of dollars developing and improving over the last ten years.” He shook his head in disbelief.

“No need for an apology, sir. I honestly had no idea that I might step on toes. All I wanted to do was to come up with something to nudge the *Salem* up and off the sea floor. And, while I believe my gizmo, as you call it, would be the most effective and fastest way, I have another plan that I want to run past you.”

The two spent the next hour discussing Tom’s plans including the different possibilities based on the ability or not to blow the ballast tanks.

“You’re probably going to blow *your* ballast, Admiral, when I tell you that one of my alternate plans called for using a much smaller version of my gizmo to force the water out of her ballast tanks and replace it with air—or something like air at least—in case the sub can’t be rigged to do it on its own.”

The Admiral rubbed his mouth and jaw as he thought the matter over. Finally, he asked, “Is there some way to just take down compressed air? After all, that’s what the sub’s do.”

“It is and it isn’t, sir. You see, the sub uses the outside pressure to aid in building up pressure for the exchange of air and water. Then they use hydraulic rams to build that pressure up to the point where it can push out the very dense water. If we just take down compressed air in a few tanks, it wouldn’t have the oomph to do the job. Now, if we could get a second submarine down there—”

“Won’t happen, Tom. I’m sorry but National security demands that we don’t have two or our subs together except in a protected port.”

“Okay, then. Do we have permission to try digging underneath and raising her to within a couple hundred feet of the surface? At least that way we can easily ferry parts and people down to her to try to affect more repairs. Plus, if our gripper claw approach works we might even be able to move along at a few knots and leave the area with nobody the wiser.”

“And you’d still have *Salem* underneath?”

“That would be the idea, sir.”

“At this point, it is absolutely worth a try.”

It required three more weeks of preparation and cross training with two different Navy repair teams before Tom gave the word to begin moving the *Sea Charger* back into position. Five days later she was on station and Tom was only a few hours away with the *Geotron*. Since his first thought to simply take it out on the deck of the *Sea Charger* was nixed, Tom had spent a lot of time devising the strategy for using the *Geotron*. And so, he, Zimby Cox, Angie Jackson and two of her top nuclear technicians had crowded into the *Geotron* seven days earlier and were driving along the bottom of the ocean toward the resting place of the *Salem*.

Bud had flown out to the *Sea Charger* the previous evening as he had several important family issues to attend to.

By the time they arrived, a second team in one of Enterprises’ large cargo jetmarines—designated CJ-3—headed by Slim Davis and Hank Sterling, had already directed the hoist cables into position and were completing their hookup.

Lt. Commander Jackson was appalled. “You have to stop them, Tom!” she demanded. “Without the safeties being turned off any motion could blow that sub and your people all the way to the surface!”

Tom got on the underwater communicator immediately telling the men to stop what they were doing and to move away as quickly as possible.

When Hank asked him why, Tom told him about the detonators.

“Oh. Not a problem, skipper. We brought out our own Lt. Commander. Alex Bannister. Navy Frogman and keeper of the secret codes.”

Tom looked around at Lt. Commander Jackson. She had a look on her face that spelled out how unhappy she was that Lt. Commander Bannister was involved.

“Okay, Hank. Thanks. Go ahead and finish up then move off a few hundred feet. We’ll need the maneuvering room.” He shut off the communicator and turned to the Navy woman. “Angie. Lt.

Commander Jackson. You look incredibly unhappy that Lt. Commander Bannister is down here, but I'm assuming that he is here with the Admiral's blessing, so we are going to have to do our best to get along. Okay?"

She let out a long sigh. "Of course, Tom. Here's the thing, though. Alex and I... that is we are, or rather were... uhhhh..." She looked at him helplessly. "We have a history. Not a particularly good one. We were married for less than two years. It ended very badly. Both our faults, actually, but a very, very bad ending."

There was a knocking on the front view window. Tom and Lt. Commander Jackson both jerked at the surprise sound. Outside, in one of Tom's aquapod suits, was a smiling man. He was waiving at them.

"Tom? Meet the ex!" Angie told him. She turned and glared at the diver outside the *Geotron*.

Alex Bannister made a motion requesting to come aboard. Tom opened a channel to him.

"Aren't you required over at the sub, Lt. Commander? I mean, you're here with a team. I'd rather you completed your mission and then—"

"Listen, son," the diver said, interrupting in a condescending tone of voice. "I'm just here to unlock the doors and to look pretty. Besides, as this is a Navy mission and I am senior officer around here, if I say I want to come in—"

Now, it was Tom's turn to interrupt. "Lt. Commander. In spite of what you might believe, Admiral Hopkins has put me in command of this entire operation. Your presence is a surprise to all of us. I'm taking my vehicle up to the surface and calling the Admiral. I need to be certain he realizes who all is here." With that he cut the connection.

The Lt. Commander made an exasperated face, shook his head and mouthed something that looked like "You'll regret this," and swam off.

Lt. Commander Jackson placed a hand on Tom's shoulder. "Welcome to my worst nightmare, Tom. Alex can be a real smooth talker, but his particular brand of snide comments, assumed power and high-handed tactics comes out pretty fast. I'm surprised, though, that he showed his hand so quickly."

"Am I right in contacting the Admiral?"

She nodded vigorously. "Absolutely. The sooner Admiral Hopkins knows what a jackass he has down here, and how Alex could jeopardize the operation with his attitude, the better."

Tom placed a private call over to Hank apprising him of the situation.

“Good. Bannister came on like he owns the place from the second he stepped onboard. We’ve come to a little detente—I threatened him with confinement in our storage closet—but he’s a real pain in the—”

“Yes, I know,” Tom said. He looked at Angie Jackson, who nodded, so he told Hank of her previous involvement with their shared problem.

“Does she have any power over him?” Hank asked.

“No. I wasn’t able to keep him in line starting with ‘I do,’ right up until we parted ways eighteen months later,” Lt. Commander Jackson answered, leaning over Tom’s shoulder to speak into his microphone.

“You’ve got more room than we do, Hank. I’m sending the two nuclear technicians over to you. Lt. Commander Jackson, Zimby and I will remain here.”

Tom signed off and soon had the *Geotron* bobbing on the surface. Five minutes were needed to reach the Admiral’s office and to get him to the phone. Tom filled him in on the situation.

There was a very heavy sigh from the other end of the line. “I see,” the Admiral said, sounding most unhappy. “I’ve got a real political hot potato here, Tom. You see, Bannister is the nephew of Senator Boyd Bannister from Alabama. A real pain himself, but the man who heads a committee that is responsible for funding this project. Is there some way to work with the man?”

Angie, who was sitting in the seat next to Tom reached for the microphone. Tom gave it to her.

“Admiral? Lt. Commander Angela Jackson. I’m not certain if you are aware of it, but Lt. Commander Bannister and I have a past.” She briefed the man on her failed marriage and added several points regarding Bannister’s behavior patterns. She finished with, “It is my belief that only a direct order from you, complete with what will occur if he should choose to disregard or re-interpret it to suit his goals, is going to keep him in check. Otherwise, he will do what he always does. Bully, badger and bother everyone until they just give up and let him have his way. In this case I am certain it would end in disaster.”

The Admiral sighed again. “Okay. I’m probably sticking my neck onto a piece of rope that Bannister might tie into a noose, but I’ll make the order to him.”

Sensing his reluctance, Lt. Commander Jackson suggested that he

contact two of Bannister's immediate superiors and several of the men and women who worked under him recently.

"I'll do that. Try to make nice with him until I get back to you first thing tomorrow morning. I'm sure that you all have a lot to do to try to get that sub back up. Hopefully, work will keep him too busy to bother you." With that, the Admiral broke the connection.

Tom sat there for a moment before setting a new frequency on the radio.

"T to SC. SC, this is T. Come in—" he waited for a few seconds before starting the call again. It was immediately answered by the radioman onboard the *Sea Charger*. He told Tom he was sending a messenger to get the Captain while he and Tom set up the secure connection.

"Tom. Good to hear from you. Where are you?"

"Well, Captain. We're on station. I was about to ask you the same thing."

"Uh... well, after your previous call we headed back to port. I'm about half way back to Fearing. Why?" He suddenly sounded worried.

Tom was shocked. "Captain. I've not radioed you since the last time before I departed the mainland. What kind of call did you get?"

"It was a coded message from you, or it said it was from you." They could hear him speaking to the radioman asking for a copy of the message. "Here. I've got it. Let me see. It reads: 'Sea Charger. Salem lift called off. Return to base. Do not radio reply.' This wasn't from you?"

"Absolutely not, Captain. Somebody is trying to ruin this project. That means we've got a spy who knows what's going on!"

CHAPTER 7 /

BACK TO SQUARE ONE

TOM ORDERED the *Sea Charger* to reverse course and to steam at top speed back to the site. He also asked the Captain to radio Enterprises and to tell Damon Swift what was going on.

“Dad will get on to the Navy and tell them. They might want us to stop what we’re doing. Or, they might want to have us go ahead. I just don’t know. Please radio me in exactly six hours. I’ll be back on the surface at that time.”

Lt. Commander Jackson was looking very perturbed. She was biting one fingernail and had torn one corner of it away.

“It’s him!” she declared. “I’ll bet it’s Alex.”

Zimby, who had just entered the control room, was horrified. “What? Lt. Commander Bannister is a spy and a saboteur?”

She stopped biting her nail and stared at him in disbelief. “What? Oh... no. But, it is just like him to have gotten the assignment and then bragged to everyone he knows about it. Loose lips don’t just sink ships, Tom. They also are responsible for more than fifty percent of what the media calls espionage. There are people, not nice people, who are everywhere the military is. They listen and report anything they hear. Then, well trained people back in some foreign country put things together.”

Tom shook his head. “And, you think Lt. Commander Bannister is the sort who would go around blabbing about the *Salem*? I mean, would he be foolish enough to mention her by name? In public?”

Angie Jackson nodded. “He loves to hear himself talk and thinks that the more he says, the more people will think he’s a real great guy. That’s part of what broke us up. Right after we got back from our honeymoon I was horrified to hear from a good friend that she was sorry to hear about my little ‘problem.’ It was a little something that happened on the honeymoon that only Alex and I were there to witness. And, she knew all about it. Her husband—a friend of Alex’s—had told her the night before. The night we got back home and Alex dropped by the Officer’s Club for a few beers.”

She looked miserable.

Tom decided to take a chance and place another call to the Admiral. He was informed that the Navy man had left the building and was on his way to a meeting in Washington. He was not expected back until morning.

“Is this an emergency, Mr. Swift?”

“I’m not certain. It might be. If he calls in, would you ask him to contact the *Sea Charger*. Her skipper will have the basic information.”

He thanked the assistant and then called to the *Sea Charger*. He left a detailed message for her Captain.

“Guess that’s about all we can do for now,” he told the Lt. Commander and Zimby. “It’s time we headed back down. I’ve got to survey the entire area and take a few soundings before we start the dig tomorrow when the *Sea Charger* arrives.”

They were soon sinking back into the depths and the waiting Enterprises and Navy people.

As the *Geotron* settled down on the seabed, they could see that more lights had been set up, and several additional divers were swimming around the submarine. There was no immediate sign of Lt. Commander Bannister, so Tom made a call over to Hank.

“Glad to see you back, skipper,” he told the young inventor. “We’ve had a small problem pop up. About an hour ago, right after you went upstairs, our Lt. Commander took a team and went into the sub to check one of the nuclear reactors. They say things look nominal, which I guess is military for ‘okay.’ Anyway, the two technicians came back out but the Lt. Commander stayed behind for a few minutes. Said he wanted to recover the Captain’s logbooks. A few minutes later he came out of the external airlock we set up. No logs. But, just about then, there was a rush of bubbles in the aft of the sub. I sent the technicians back in as the Lt. Commander came onboard over here. They reported that a valve that should not have been open, was. And, there was about a foot of water inside the reactor room.”

“What does Lt. Commander Bannister have to say about that?” Tom demanded.

“He says that one of the techs must have ‘accidentally’ brushed it and opened it up. He actually laughed at me when I asked him straight out if he did it. I don’t trust him, Tom. What can we do?”

Tom told Hank about the family connection to the Senator and how the Admiral was tip-toeing around. And, how there probably wouldn’t be any orders to the Lt. Commander until the following morning. “Actually, Hank, since we’re this far out in the ocean, it won’t be until about our noon.”

Hank groaned. Tom knew how he must feel.

He sent out the order that all work would cease until they contacted the Admiral the following day. Without making a total lie

of it, Tom told everyone that the Admiral required the extra time to make a decision and that nothing was to be done until that time.

Tom and Lt. Commander Jackson returned to the surface to receive the call from the *Sea Charger*.

“Your father wants me to remind you that as long as Enterprises is controlling this recovery, you are the ultimate authority. Also, we heard from your Admiral. He says to stand by around your eleven hundred hours. He wants the Lt. Commander—that’s the male one—to be with you when he calls. And, finally, we are steaming back to you and should be on station by three in the afternoon, your time. Admiral Hopkins wants this mission to go ahead so he said to lay on some more coal handlers! Get her as completely powered as you can.”

Tom grinned at the thought. As with all Swift underwater craft, all power was provided by small yet powerful nuclear reactors and power packs. Between the *Geotron* and the other Swift submersible, they carried a half dozen of the larger units.

The thanked the Captain and then set course back down to the recovery site.

The following morning, Hank was fit to be tied. “He came hammering on my door at five this morning, Tom. Demanded to be taken to the surface to contact his uncle.”

“You didn’t do that, I assume,” Tom said looking out the *Geotron’s* front windows and seeing Hank’s vessel where it had been the evening before.

“Of course not, skipper, and that made him furious. He tried to commandeer the radio and wouldn’t calm down until he realized that it doesn’t work underwater. What should I do?”

Tom thought and then told the distraught engineer, “You’re the captain of that jetmarine. If he is causing problems, tell him he is one step away from mutiny and you’ll have him restrained if he gets out of line.” Tom was pretty sure that Hank was now smiling as he realized he *did* have the power to do just that.

“I’ll have Slim accompany me when I go tell him that after we finish talking. I’m positive that Slim’ll have no issues with taking a poke at Bannister if there is any sign he wants to argue the matter. Thanks, Tom. I’ll let you know how it goes.

An hour later Tom still hadn’t heard from Hank. He was beginning to worry.

“Want me to head over there, skipper,” Zimby Cox offered. As tempting as it might be, Tom shook his head.

“I’ll call them.” He was just reaching for the microphone when a

call came in from Hank.

“How are things, Hank?” Tom asked.

“Uh... well... you might want to ask Doc Simpson to fly out to the *Sea Charger*. Slim and I confronted Bannister and he went absolutely ballistic. Started screaming and swinging at both of us. I’m no psychiatrist, but I’d have to say the guy is bananas.”

“Did you restrain him?”

Slowly, Hank answered, “Yeeeeesssss. That would be after Slim had to disarm him. Bannister grabbed up a fire extinguisher and swung it at Slim. Slim ducked and kinda helped Bannister’s arm continue around until it slammed into the hatch.”

Angie Jackson, who had overheard all of this, let out a slight giggle. “Did he get hurt much?” she asked hopefully.

“We’ve got the arm all realigned and splinted up and he’s under heavy sedation right now, but Doc’ll probably want to reset the thing. Are you angry, skipper?”

“Hank,” Tom said with a slight chuckle, “if the man was going crazy and started swinging at you, I’m happy that he is the one needing Doc’s attention. I’ll put in the call.”

He took the *Geotron* back to the surface once more. “If I’d known we’d be playing elevator I would have brought a small seacopter. It’s actually kind of a struggle for the *Geotron* to do all this. She was meant to crawl and dig. Not bob.”

When he reached Enterprises and Doc Simpson, the young medico agreed to grab his bag and a pilot and to fly out to the *Sea Charger* within the hour.

Tom made a second call to Admiral Hopkins’ office.

“Ah, Tom. Just about to call you. How are things going?”

Tom told him about the mutinous actions of Lt. Commander Bannister and about how he had required being subdued and sedated.

“That certainly makes my job a little easier, Tom. You see, I was going to have to tell you my hands are a little tied by the Senator. He thinks his nephew is just ‘going through a wild phase’ or something like that and wants us to back off. But, now that the kid has gone loco I can tell you that you have the full support of the Navy and the UCMJ behind you. Get him transferred to the surface as soon as your ship gets there and we’ll have a military transport fly out to pick him up. In irons, as we say. Handcuffs, leg irons, whatever. And, by the way. Since the word about the *Salem* has leaked out somehow, you have permission to perform all ops out in the open. I’ve got

seven Navy cruisers and frigates plus an aircraft carrier steaming toward you for protection should it become necessary. You might also catch a glimpse of something underwater as well. Just don't try to contact it. Understood?"

Tom did and told the man so.

Several hours later the mutinous Lt. Commander had been transported to the surface in the jetmarine and turned over to a team of military police and Doc Simpson.

Tom completed his undersea survey, which included taking more than a dozen close-contact soundings of the sea floor around the submarine. He was ready.

With Bud now down below and sitting in the co-pilot's seat, Tom set the *Geotron's* tractor treads in motion. A minute later it was exactly one hundred ten feet off the port side of the sub, the optimum starting point according to Tom's calculations. He angled the nose of the giant underwater mole down and began digging. It was shallow going at first but before they were half way to the submarine the ooze was up and over the top of the windows.

Twelve minutes later, Tom angled the nose back up and they exited the hole one hundred ten feet off the starboard side. He spun the large craft around and set up to make the second pass fifty feet aft of the first one.

In the next hour they completed five of the seven tunnels that Tom felt were necessary. Half an hour later everything was finished.

"Now," he told Bud, "We get the cables attached, then it up, up and away... hopefully!"

A sonaphone call was made to the waiting ship and soon the first of the cables were on the way down. In just under two hours the submarine was attached to its lines like a metal sausage puppet.

"So, do we go back into the middle hole?" Bud asked.

"Nope. This time we dig from the back to a point just aft of the sail. That's the balance point for the *Salem*. We need to be in that spot to blow our ballast and to give her a little shove. I don't want to rely just on the cables."

He checked his notes and positioned the *Geotron* at just the right point behind the submarine. Fifteen minutes later he sonaphoned to Hank to pass the word up to the waiting ship that the cables needed to be winched in beginning, "Exactly in three minutes from... mark! Now, Hank."

He computed that a head start of seven seconds would be necessary to provide the maximum buoyancy and so he pressed the button to ram compresses air into the ballast tanks at that point. In

three seconds they both heard and felt the top of the *Geotron* bumping the underside of the submarine.

They heard the groan of metal on metal contact. A few seconds later the *Salem* still had not budged. He decided to wait for a full minute before contacting the surface. He needed to wait only five seconds more before Hank's call came in.

"They want to know if you've blown ballast, skipper. The winches are straining up there and all they're getting is a port side list of about five degrees. I'm not seeing any movement of *Salem*. What do you want me to tell them?"

"Tell them that we've blown all our ballast. If the sub suddenly were to disappear we'd shoot to the surface like a missile." He turned to Bud and shrugged. "Guess we don't have enough combined oomph to get her up—" He stopped as they both felt movement.

"Hey, Tom!" Hank called out jubilant. You're doing it! She's moving up. Really slow right now but she's moving. Hang on—"

"What's going on?" Bud asked.

"Hank's contacting *Sea Charger* right now. As for us, I've got to re-flood the ballast tanks or we'll soon slip up one side and go shooting to the surface. Might catch or cut some cables." He made a few adjustments and soon the *Geotron* was settling back down into the trench and the *Salem* was hanging a dozen or more feet above them.

"*Charger* says their list has cut back to just two degrees. They stopped hoisting for a minute to let you get out from under there in case things let go."

Tom set his vessel into reverse and was soon backing out from under the massive submarine. "*Sea Charger*? This is Tom. Hoist away. We're clear!" he called out.

"We're heading up to get ready to rig the gripper claw, Tom," Hank called over. "When are you two coming up?"

"We'll be there by the time you get the claw connected, then Slim and Zimby can transfer over here and drive this sea slug back while we join you in the jetmarine. Of course, if the technicians can get things running enough to blow ballast, then we'll just tow her in at a reasonable speed. If not..."

He left the rest unsaid. Everyone knew that the best speed they might make if the submarine could not rid itself of the ballast weight would be about three knots. At that speed it would take them just over two weeks to get back to the closest U.S. submarine port.

It was slow and laborious work but ten hours later the *Salem* was no longer languishing in the three thousand feet of water she once

was. Tom reflected on how a few dozen miles west or a hundred miles east and she wouldn't have come to rest on the Mid Atlantic Ridge but might have slipped into the deepest parts of the Atlantic, never to be seen or heard from again.

While the Navy technicians and an Enterprises crew worked to install the power pods in the submarine and to try to get some of her systems back on line, Tom and all the other Enterprise personnel took a well-deserved break.

Angie Jackson asked Tom if he would like to join her sunbathing on the deck of the *Sea Charger*. Seeing Tom's slightly panicky reaction, Bud stepped forward and had a quiet word in her ear. She blushed.

"Oh, my. Tom. I am so sorry. I didn't know you were, well, attached. It's just that we've spent quite a number of days together and... silly me. Sorry." She blushed, turned and quickly walked away. Both boys could hear her berating herself. "Jeez, Angie. Put your foot into that one! Stupid, stupid..."

"I just saved you, skipper. You can thank me later." Bud grinned and walked away leaving Tom standing alone, slightly bewildered.

One day later, the Navy team declared *Salem* to be non-operational. "She'll have to be towed in. Admiral Hopkins would prefer that we keep her underwater if possible instead of on the surface," Angie Jackson told Tom once she had spoken to headquarters.

"Then, we stick with our plan to hold her up with the cables and tow her using the jetmarine," Tom declared.

Over the following eleven days the *Sea Charger*, along with the CJ-3 and their external cargo, moved slowly toward the East Coast of the United States and a submarine base in Virginia. It was slow going. Every thirty-six hours they needed to stop to change crews in the jetmarine.

Things went well until they reached a point about four hundred miles out. A small private jet bearing the logo of one of the major news services buzzed them several times.

Their intent was obvious, and the Navy escort was having none of it. A trio of fighter jets was launched from the aircraft carrier and soon escorted the jet away and back toward land. Tom found out later that their videotapes had been confiscated, a fact that somehow never made the news.

The real trouble came two days later.

Tom was on the *Sea Charger's* deck when everyone heard—and felt—an explosive CRACK! To his dismay, the forward most pulley

snapped free and slammed into the one directly behind it.

Tom immediately TeleVoc'd the order to stop to the bridge. Once they received the word, the officer on duty passed the word down to the CJ-3. Slowly, and working with the precision necessary to avoid any additional strain on the remaining cables, they came to a halt.

Tom went to the port side to examine the damage. What he saw worried him. It was obvious that the constant strain of the waves, water and heavy submarine below had finally ended in the destruction of the six-inch steel pin that held the pulley to its mount.

What was worse was the state of the cable. It now rested against pulley number two and was frayed and almost totally separated. He walked to the next pulley and the one after that. All pulleys and cables showed some signs of damage.

The Captain strode up to Tom. "How bad is it?"

Tom sadly shook his head. "Bad enough that we're going to need to lower the *Salem* to the bottom before they all snap," he answered.

While the Captain took charge of getting their precious cargo back to the ocean floor, Tom went to the radio room. First, he contacted the Fleet Admiral on the aircraft carrier. He reported exactly what had happened and the actions they were now taking. An experienced Navy man on both surface and submarine vessels, he understood the situation and agreed with Tom's actions.

"I'll make all the proper notifications, Mr. Swift," he said. "Luckily, according to our charts we are in just over four hundred feet of water right now."

An hour later the *Salem* rested, upright and level, on the bottom. The area was devoid of any rocks or other rough features so she would remain there without any currents causing motion and possible damage.

Arrangements were made for all Swift craft and personnel to leave the area while the Navy flotilla would remain. Tom would get the *Sea Charger* into Fearing Island's port and make all repairs and then return in a week's time to finish the job.

But, just three days later, a call came in from Admiral Hopkins.

"Tom. First, I'd like to offer the Navy's most sincere thanks for everything you've done on this rescue and salvage mission. Now I have some news. Along with the secrecy issues, the reason we needed you to help with getting *Salem* up off the bottom, and did not use our own equipment, is that our Atlantic-based sub tender, *The Sealift*, was in dry dock getting her barnacles scraped. Well, we finished the work and got her re-floated today, so she'll be in shape to steam out and pick up our little package by this Friday."

“That’s great news, sir. Is *Sealift* one of those two-hulled ships that the submarine snuggles up in the middle of?”

“Exactly. And, she has the heavy torque winches and a computer control system that exerts just the right amount of lift and can break the suction under its target.”

“Well, I can’t say that I am sad to not have to go back out, Admiral. In fact, relieved is more the word. What we were doing worked, but it was a pretty severe strain on both my men and our different craft.”

The Admiral chuckled. “Welcome to a typical month in the U.S. Navy, Tom. Anyway, I had two other things I needed to tell you. The first one is that I need to have you come to the Kings Bay Navy Base a week from tomorrow. It has been determined that you and Swift Enterprises need to be brought into a much larger project than this one.”

“Should I bring a team with me, or just my father and me?”

“Well,” the Admiral said thoughtfully, “This is at a secrecy level equal to the start of *Salem’s* rescue and recovery. So, just the two famous Swifts for now please.”

“Okay. So, what’s the other thing you want to tell me?”

Clearing his throat, the Admiral became even more serious than before. “It isn’t good news, Tom. Senator Bannister went ballistic over his nephew’s treatment and managed to get the Secretary of the Navy to order Lt. Commander Bannister’s release.”

“Oh,” was all Tom could say.

“That was five days ago. Since then, he has *completely disappeared!*”

CHAPTER 8 /

SKY QUEEN OF THE DEEPS

TOM COULDN'T believe what he was hearing. "Does that mean he's AWOL, sir? Or, a deserter?"

"Well, Tom. For the first thirty days in the Navy you are considered to be on an Unauthorized Absence. After that it's AWOL. Desertion is a whole other thing. We made the distinction a long time ago back when being absent without leave meant that you could be hung for the offense, even if you were unavoidably detained for a few hours or days."

Tom was cautioned that he should notify all local law enforcement agencies. "We'll be sending out his official Navy photograph in a few days, Tom. You might want to get your Mr. Ames in on this as well. Bannister was overheard muttering about 'getting even with him,' and we believe you are that 'him.'"

Tom agreed to be cautious. The date and time of the meeting at the Navy base was set and Tom hung up.

Five minutes later he strode up to the door of the office he and his father shared.

"He's on a conference call with some buyers in Japan, Tom," Munford Trent told him. "I'd give him a few minutes before barging in. Can I get you a coffee or something?"

Tom thanked the secretary but declined. He walked to the sofa on the wall opposite Trent's desk and sat down. Three minutes later Trent politely cleared his throat, and Tom looked up from the journal he had been perusing. Trent nodded toward the door. "All clear."

Tom found his father sitting in contemplation behind his spacious desk. Fingertips steepled together with his index fingers on his chin, Damon Swift was slightly nodding to himself as he seemed to be going back over the recent conversation. He looked up at Tom as if saying, "Wait one."

It was at that time Tom realized that his father was using his TeleVoc pin to discuss something with another Enterprises employee. With one final and emphatic nod, the older inventor turned to Tom

"What's on your mind, Son?"

Tom related his conversation with Admiral Hopkins.

"He's absolutely correct. Get with Harlan immediately. If young

Bannister is anything like his uncle, then he is the sort of person who just impulsively does things without considering the consequences. Senator Banister has been known to introduce bills or stand behind causes that can harm a greater number than they help and then scoff at people who try to tell him how misguided he has been. Now, about this mysterious meeting at that Navy base in Georgia...”

“I’ve got no idea what might be going on. All I know is that it is the base they will be hauling the *Salem* into, so it’s obviously a submarine base. Do *you* know anything about it?”

Damon Swift shook his head. “Some research may be called for,” he suggested. “I’ll see what I can come up with.”

Over the next several days Tom busied himself with some design refinements to his claw. He and all the others who had piloted the CJ-3 during the towing had noticed that it had the tendency to want to relax its grip over time. Every time towing was suspended it needed to be repositioned which entailed backing up against it and nudging it into position while carefully modulating its grip.

Tom was trying to design a set of small treads that would allow it to move slightly and adjust as needed without increasing the size of the claw device.

Bud dropped by several times, offering conversation and one reminder of a beach date they had with Bashalli and Sandy the third afternoon.

Tom was happy to set aside the claw project for a few hours of picnicking, swimming and a game of volleyball with two other couples, people Sandy went to school with the previous year.

With nothing much to do back at work, Tom let the afternoon drift into evening. Bud made a quick trip to the supermarket and they were soon roasting wieners and sausages over a small fire Tom built on the shore of Lake Carlopa. All too soon it was time to get Bashalli home. Her parents, although she was twenty years old, were very old-fashioned and insisted on an eleven o’clock curfew for her.

Tom kissed her goodnight and was just turning away when she grabbed his head and pulled him back for another kiss. They both heard the slight tapping noise on the window in the Prandits’ living room.

Sighing, Bashalli said, “I think that my mother is reminding me that it would not be wise to be seen by either my father or my brother engaged in any sort of pleasurable activity. Good night, Thomas.”

“G’night, Bash. Today was a lot of fun. I hope someday soon that I can slow down a little and enjoy more days like this.”

But, it wasn't going to be soon, as Tom discovered when he and Damon Swift visited the submarine base. On the trip down Damon told Tom the short list of things he had found. There were not a lot of details.

After checking in at the main gate, they drove past an eerie sight; the upper hull and sail of an earlier nuclear submarine appeared to be rising from the ground just inside the gate. Close by was a display of about a half dozen different ballistic missiles used over the years in various submarines.

Admiral Hopkins and a team of about twenty men and women, most in Navy uniforms, met them at the Command and Administration building.

Introductions were made and the group boarded a mini bus parked a few yards away from the entrance. They were taken on a brief tour of the facility. Tom was impressed by several large buildings that seemed to be floating on the water. About as wide as a football field and almost twice as long, these, the Admiral explained, were the covers for the submarine pens.

"If we really push things together, we can get seven inside each building. But, and this is the reason why you are here, we only have a single sub inside that far one." He pointed toward their destination. The building looked darker than the others, and Tom soon realized this was from an accumulation of dirt on the outside and the roof.

"It was our first and unfortunately has seen a few better days. Try as they might, our sailors can't keep that one as spic and span as we'd all like."

Since the skin of the building appeared to be aluminum, Tom ventured, "It looks like acid rain and smog have etched the outside. I've got something back at Enterprises that will renew that finish... if you'd like to, that is."

The Admiral smiled. "Only if it will help work up a really good sweat in the people using it, Tom. Otherwise we'll stick to manual scrubbing."

They stopped next to the quay wall at the water's edge and got out of the bus.

"Now, before we go in, I want to tell you a few things. We're out here and away from any possibility of prying ears. This is, as you can appreciate, absolutely top secret." He looked meaningfully at Damon and Tom. They both nodded.

"Alright then. It's story time. Back in the late fifties we started having a few... well... accidents. In fifty-seven, a C-140 aircraft was carrying a pair of hydrogen bombs up near New Jersey. They had such a severe electrical problem they believed they might have to

crash land, actually ditch at sea, so they marked their position and ejected the bombs, intending to have the Navy pick them up.”

“I remember that,” Damon commented.

“Yes. Well, what they couldn’t have known is that they were not dropping empties, as we call them. Unarmed bombs, that is. These were fully loaded warheads full of plutonium. We’ve never found them. The aircraft navigation equipment, probably due to the electrical problems, registered dozens of miles off course.”

“Do you want Enterprises to search for them, sir?” Tom asked.

“We now believe that it is possible a Soviet submarine might have snuck in and hightailed it off with them back around fifty-nine. Sure, it would be nice to verify that. Heck. Just locating the site where the bombs ended up would give us some level of closure. But, that’s not the end of our little tale.”

He told them about the *USS Thresher*, a nuclear submarine with a troubled history that sank killing all on board in 1963. She was known to be located off Cape Cod but in water too deep to recover.

“She is in six big pieces. Broke up, we assume, during a deep dive test. We’ve never managed to recover her reactor.”

“Is that what you want Enterprises to help with?” Damon asked. “Bring up her reactor?”

“Actually, we want it all up. The problem is that we’ve never been able to get cables down there and attached. Too deep. Over eight thousand feet down. Ah, here is our guide.”

A man came out of a door set in the side of the massive building. He crossed a gangway to the waiting group and saluted the Admiral. “We’re ready, sir,” he stated.

Motioning them to go ahead, the Admiral turned and spoke quietly to one of his officers, then joined them. Inside, bright lights illuminated the single submarine held within the building.

Tom almost couldn’t breath. The submarine, resting on a floating platform so it was totally out of the water, was huge. *Not just huge*, he thought. *Gargantuan!*

“This is what was going to be designated the *USS Demeter*. The Greek god of harvest. She is five hundred ninety-seven feet long, eighty-one feet at the beam and eight decks tall. If you look down there to the left you can see two of her four screws.”

He let them take in the massive submarine in front of them before continuing.

“She was part of a build-up back two decades ago. We got her about ninety-five percent finished before a nuclear slowdown treaty

precluded any nation from operating submarines over twenty-two thousand tons. *Demeter* comes in at fifty-eight thousand, loaded and dived. We had to scrap her according to treaty conditions.”

“Was she some sort of doomsday submarine, sir?” Tom asked. “I mean, so full of weapons that she could effectively destroy the Earth if unleashed?”

The Admiral laughed. “Hardly, Tom. At least, not all by herself. You see, although she has torpedo tubes fore and aft, she has absolutely no missile capabilities. No. What she was supposed to be was a submarine carrier!”

He let them think about that for a moment.

“In her lower bay she could carry four fully-loaded attack submarines. The idea was so get her to a location as quickly as possible—she was designed to be capable of forty-eight knots underwater speed—and to then launch the attack subs. Ditto, if ever attacked or trailed by other subs, she could drop one attack sub to take care of that problem, bring it back onboard and continue her mission.”

He took them onto the giant submarine. Only the top two decks were outfitted for habitation with the front third of a third deck used for command and control. All along both sides were the standard ballast tanks with the two nuclear reactors taking up just the final aft fifty feet of the sub. The entire inner portion was a massive hangar where giant brackets were located that could hold onto the cargo of submarines, two abreast.

“What sort of crew compliment would she have had?” Tom asked.

“Well, of course there are the crews of the four submarines, about ninety each, but the actual *Demeter* could be manned by a crew of just forty. Two shifts of eighteen plus four senior officers.”

He stopped just outside of the control room. “We are about to enter the one area that holds top secret items. It is also a departure from every other submarine ever built. It is up in the nose of the sub, not under the sail. In fact, you might not have noticed, but the sail on *Demeter* is just eighteen feet tall. About half for a sub of this size. It is all a control surface array and staging area for a SEAL team that also could be carried.”

He opened the hatch and they stepped inside. Tom and Damon had both taken tours of several submarines in recent years. Later they discussed what they thought they might find. Tom had been especially surprised.

To begin with, the very front of the room was unlike any submarine they knew of. It was a wall of clear windows. Tom walked forward until he was standing in front of them. Ten feet high and

about thirty feet wide, they were like the giant panes of glass at aquariums. Only, Tom sensed that they weren't actually as thick as they should be.

Turning around he was facing his smiling father and the Admiral. "So this is what you Navy folks did with that clear tomasite we sold you," Damon remarked.

The Admiral smiled and nodded. "Our best designers thought it would make a nice addition to the standard seeing-by-periscope and SONAR that other subs have. Your miracle plastic is so strong that I wish we could make an entire submarine out of it. Imagine the depths we could master..." He was looking out through the windows but Tom could see that Admiral Hopkins' mind was somewhere 20,000 leagues under the sea.

Tom and Damon wandered around the large room.

Instead of antiquated equipment and systems, *The Demeter* was outfitted in what appeared to be some of the latest equipment available.

"Now you can see why this is top secret. We have been keeping her up to date on the chance that she might be required. As she stands today, she could be operational in about three weeks. The problem is that all the submarines she was designed to carry have been decommissioned, and nothing in the current arsenal could work in her as she stands today." He shrugged.

"We won't ask any of the obvious whys of her existence, Admiral," Mr. Swift assured him, "but I do have to ask why you are showing us all this. So?"

The Admiral nodded as if coming to a decision in his own head. "Right. The reason is that *Demeter* is now yours!"

Tom gasped. "Ours? What does that mean?" He looked from the Admiral to his father and back again.

"It means," Damon said, "that Admiral Hopkins needs us to be able to use her to accomplish something the U.S. Government and the Navy can't be seen doing. Is that correct?"

Admiral Hopkins nodded.

Tom blurted out, "What?"

"Glad to see you're anxious to get started, Tom. We want Swift Enterprises to announce to the world that you have been building this in secret—with the help of the U.S. military—with the expressed purpose of cleaning up the oceans of the world. You are going to go deep sea dumpster diving to bring up sunken freighters and other ships that might contain dangerous cargo."

Tom looked vaguely disappointed. “Oh. I thought all that talk about the *Thresher* meant you wanted us to go pick her up.”

“That’s precisely what the Admiral is telling us, Son. Everything else is going to be just for show. Right?”

“Correct, Damon. Tom? We have a list of several high-value targets for you to recover. Fortunately, at least two of them are near sites of known ships that were carrying expensive cargoes or dangerous cargoes. You will be searching for them while you are actually looking for our missing submarines. Well, ours and at least one Soviet sub that we really want to get out hands on.”

It was agreed that Swift Enterprises would take on *The Demeter*, rename it the *Swift Recovery One*, and could expect to be allowed to acknowledge it to the world in two week’s time.

Once back at work Tom assembled the core team that had been responsible for the development and construction of his jetmarine and seacopter prototypes. Each man and woman was well versed in underwater craft, and they were soon working side-by-side with the Navy’s best, making improvement here and there, and replacing some unnecessary equipment with things Tom designated.

With no real fanfare a press release was issued jointly by George Dilling at Enterprises and the official Federal News and Press Release portal on the Internet. It simply stated that Enterprises had been working on a company secret underwater salvage vessel with the assistance of the U.S. Navy, and that the vessel was going to begin trials in the foreseeable future.

It attracted, as hoped for, almost no requests for additional information.

Bud, who would be Tom’s copilot and overall second in command of the handpicked crew of Enterprise employees, stopped dead in his tracks when he first entered the doorway to the submarine building.

In awe, he uttered, “It’s the *Sky Queen* of the deeps. Jetz!”

Although he had given it no thought, Tom had to agree that there were great similarities between his giant aircraft and the new salvage sub.

“What are you calling it?” Bud asked. “I mean, other than that ridiculous Standing Room Only name.” Bud was referring to the initials of *Swift Recovery One*. “Face it. That’s not sexy. Give me a minute to come up with something.” Having said that, Bud walked away to stare at the submarine.

Fifteen minutes later he caught up with Tom in the storage compartment just behind the main control room.

“Got something, flyboy?” Tom asked seeing Bud’s smiling face.

“Sure do. You tell me she’s out to find old submarines. Right?” Tom agreed with this. “Like a basset hound. So, how about Old Tube Sniffer? Or, and you’ll love this, OTuS.” He stood there with an expectant smile on his face. When Tom didn’t respond for a full minute, the smile began slipping.

“Well... she’s not exactly like a bloodhound, Bud. She’s not actually sniffing out clues and following paths—” he paused, considering something.

Finally, Bud’s shoulders sagged. “Not buying that one, huh?”

Tom began laughing. He managed to get out, “No. It’s just that I have come up with a very descriptive name but yours takes the cake. I was thinking of calling her a USaT. Underwater Salvage and Transport. I’m not going to stop you from calling her OTuS, but you will remember that she is a she, man’s name or not.”

Less than five days later the giant submarine was lowered into the water for the first time in over twenty years. The Navy team requested that all Enterprises personnel leave the area in case of an unforeseen accident while starting up the reactors and the propulsion systems.

Tom argued, successfully, that his team was going to need to know all the ins and outs of the submarine, and they might as well learn from the get go. The Navy relented.

No problems were encountered even in the oldest of systems. It was so smooth that four nights later, and under cover of the dark of night and no visible moon, the sub was towed out of its hangar and taken to the outermost edge of the base. Bidding Tom and his crew farewell, the Navy team departed leaving the Enterprise crew in total command.

“We’ve got to get her out to Fearing tonight and under that false upper deck cover they’ve been constructing,” Tom told the crew. His plan was for several days of practice followed by secret sea trials at a shallow but reasonably undetectable depth.

With no fanfare, the submarine left the waters off the coast and slid silently down to a depth of fifty feet. Tom tried basic maneuvers and found that, although a bit ponderous, she answered to speed and steering commands rather well. Six hours later they pulled into the main submarine area at Fearing.

A hand picked team, using night vision goggles and no visible light, tied her up and two cranes lowered a new and fairly novel-looking false cover over the top. It had a small twin-arm crane and what appeared to be a giant spool of 2-inch cable. It was, of course, totally non-functional but might fool casual observation by a passing satellite.

Three nights in a row teams of Fearing Island personnel stocked the boat with food, supplies, and an emergency escape vehicle.

Tom chose that Sunday as their departure date and eleven p.m. for the time. Like clockwork the lines were tossed back to the waiting dock team and he maneuvered the massive boat slowly around until it was facing the secure entrance to the dock area.

Because of its great height it wasn't possible to totally submerge until they were about three hundred feet out and over the edge of a small shelf where the sea floor plunged away by several hundred feet in a matter of just a hundred yards.

He gave the order to dive and the OTuS dropped from sight.

CHAPTER 9 /

NUCLEAR SURPRISE PACKAGE

THE TRIALS lasted three days. At the end of that time Tom declared that the giant submarine was in fine operational condition, and that the crew knew how to run her. This wasn't too difficult to achieve as the intent of having a minimal crew operating her meant that most systems were both simple and highly computer assisted.

"I want to remain out here while we try for our first salvage," he told the crew at dinner. The submarine was resting on the floor of the ocean four hundred miles off the coast due east from Jacksonville, Florida where the water was just one thousand feet deep.

"Where to, skipper?" Zimby Cox asked.

"I'd actually like to head up north to see if we can detect the warheads off the coast of New Jersey. They're supposed to be in about three thousand feet of water. But, I think we need to try for something more easily found to start with."

"Like what?"

"Well, the *Fairfax* is within our range and we know where she is," Tom replied.

"How deep do we dare take this old girl, Tom?" Bud asked. He knew that her original dive maximum was classified but hoped that Tom had a good idea of her capabilities.

"The way she's constructed, if we keep the lower bay filled with water at the ambient pressure, she can do around two thousand feet. It might be couple hundred feet more; nobody will tell me. The wide and relatively flat habitable area has a lot of advantages with all the cross bracing holding off the pressures. I don't want to push that, so we'll remain above eighteen hundred," he explained.

What Tom really wanted to try out was the set of three giant gripper claws. Based on the smaller one he designed for the recovery of the *Salem*, these claws were thirty percent larger, incorporated his new tractor tread positioning systems, and were outfitted with 360° cameras along with aqualamps and special lenses capable of using that light.

They had been mounted up inside of the large cargo hangar at ninety-foot intervals. Each one, along with the winches that powered them, could lift more than five thousand tons—underwater—and from depths of up to eight thousand feet below the submarine.

Tom had struggled in obtaining enough cable for all three. In total, just the cables weighed in at sixty-seven tons. He knew that he needed to develop a lighter, and even stronger cable so that anything below that depth might be reached.

Knowing that it would be impractical to try for any of the submarines they would eventually try to recover as their first target, Tom set course to head to the point where he had spotted the *Fairfax*. The aft section would need to be forcefully detached—possibly by explosives—before it could be raised, but it would give Tom and the crew a good practice run at lowering and setting the claws.

The following day they arrived in the vicinity where Tom had discovered her. He called the crew together for a briefing.

“Okay. Below us is the *Fairfax*, a cargo and auto carrier out of Canada. She went down about ten years ago—” He stopped. Something started nagging him in the back of his mind. Shrugging, he continued. “Anyway, there is a standing request from both her owners and the insurance company who doesn’t want to pay out on the claim until they know what happened, to bring up the entire aft end. The command section, crew quarters and the propulsion systems.”

He described how he intended to go about this. OTuS would position herself above the wreck just above two thousand feet. One claw would be lowered and used to make a close survey of the vessel.

“Of course, it is now that I wish I had designed in some sort of propulsion mechanism in the claws,” Tom admitted to his team. “Without that, we are going to have to maneuver the OTuS around to position them. Well, nothing to be done about it now.”

A hand was raised from the back of the group. “How’s about jest goin’ out there an’ lassooin’ the thing with a couple-a ropes? Two strong men oughta be able ta pull it around.”

“Well, Chow,” Tom replied to the roly-poly former ranch cook and now the chief chef on all of Tom’s expeditions and back at Enterprises, “it’s a matter of inertia.”

“Is that the thing where’s somethin’ sittin’ there ain’t gonna get up and move unless prodded inta it, and anythin’ already movin’ is gonna keep movin’? I thought things underwater were practic’ly weightless.”

“Well, while that’s true enough, Chow,” Tom told him, “it isn’t so much the weight as the mass. And, thought these claws are built out of durastress, which is fairly light, we had to give them a core of cast steel to give them enough weight to sink properly. They each weigh in at about two tons.”

“Oh.” Chow remembered roping a one-ton steer once and how it had dragged him more than fifty feet before he could let go of the rope. “Ferget it!”

Moving the submarine around proved to be impractical. An hour of trying told Tom all he needed to know. “We’ve got to get these things outfitted with propellers,” he declared. “Let’s head back to Fearing.”

“Hey, skipper,” Bud called out. “Couldn’t we see if the *Fairfax* had one of those black boxes? If we could take that back...”

“That’s actually one of the bones of contention between the owners and the insurance holders. Evidently, the shipping company had been stalling on putting in a black box recorder and satellite communications system to send back any info in case of an emergency. She didn’t have any of that when she sank.”

“Uh, then what about a Captain’s logbook? Maybe he had enough time to write something. Maybe they had some troubles going on for awhile?”

Tom considered this and then agreed. “Okay. Let’s go out there and see what we might find.

He and Bud suited up and headed for one of the airlocks. Fifteen minutes later they were floating just above the starboard bridge wing, an area where crew could stand to get a better all around view.

“Where would it be, Tom?” Bud asked.

“Most probably in his cabin, just behind the bridge here.” They used a pry bar Tom discovered—called a dogging wrench—to open the six hatch bolts. It required both young men working together to get them to move against the years of corrosion, but they soon had the hatch to the main bridge ajar. Inside were the skeletal remains of at least three bodies along with a lot of deteriorating paper and other debris.

“Let’s go through there,” Tom said indicating one of two identical doors at the back of the bridge. That one turned out to be the main stairway down to the lower decks. They tried the other one. It was, as Tom hoped, the Captain’s cabin.

Still sitting on the desk was a large, blue logbook. Though extremely swollen with water and therefore delicate, Tom was able to move it slowly and carefully into a container he had brought. He sealed the container and attached it to his suit.

Back on board the OTuS, Tom asked a crewman to put it into an airtight storage locker. Then, he and Bud got out of their suits and back into civvies.

“That gave me the creeps, skipper,” Bud admitted. “Must have

been the skeletons on the bridge. Ick!" He shivered at the memory.

Although they were not the first skeletons Tom had seen, they had come as quite a shock. Having been close to death himself, Tom could well imagine what their final moments might have been like.

The submarine crew had a subdued dinner that evening and headed back to Fearing Island. Making port around midnight the following evening, Tom supervised the lowering of their dummy upper deck disguise and then joined Bud and the others at the bunkhouse.

They awoke to a wonderful breakfast prepared by Chow, who told them, "You all disappointed me t'other night. Barely ate anythin'. I want to see clean plates all around. Hear?"

Bud was about to say something when Chow shook a wooden spoon at him. His mouth closed.

After finishing the meal, everyone climbed aboard the *Sky Queen* and headed back to Enterprises.

"What are you going to do with that old logbook, Tom," Bud asked as they were approaching their home base.

"There is a group down in Washington that specializes in carefully drying out and cataloging old, paper-based documents found in wrecks. I'm having it hand-carried down to them this afternoon. Want to volunteer?"

"You bet!"

Tom spent the next five days deep in the work of designing the new grapples. Everything that he could think of was added and the overall size of them grew by about ten percent. He was so intent on the task that he worked through the weekend.

On the afternoon of the sixth day he received a call.

"Mr. Swift? This is Doug James down at the National Institute for Conservation in D.C. You sent us the logbook from the sunken ship, *Fairfax*?"

"Of course," Tom answered. "Glad to hear from you. I hope it is good news."

"Well, for having been underwater and undisturbed and at a fairly great depth, the paper showed a remarkable amount of damage. Generally it takes about three times longer to get to this state. Now, don't panic because it also was pretty easy to dry out and photograph. Here's the thing, though. It is slightly radioactive, and that's a worry. We've never seen anything like it before."

"How radioactive?"

“Oh, only a few roentgens—about eleven—but higher than any paper should be. Are you certain this came from a sunken freighter?”

Tom told him that he was certain. “I picked it up and stowed it in the container myself.”

“Hmm. Well, at some point it was exposed. Anyway, I have all of the entries digitized. Where would you like them sent?”

Tom provided a private email address. The man promised to have them sent within the following ten minutes.

When they arrived, Tom scanned through the final few entries. Nothing stood out. There was no mention of any mechanical problems or any worries the captain might have had regarding his ship.

What caught his eye was the crew manifest that appeared to have been found in the back. Reading down the list, he stopped at one of the top entries. There it was again. Some nagging feeling about the *Fairfax* and one of her crew. Tom snapped his fingers and picked up the phone.

Five minutes later he had another phone number and was dialing it as Bud walked into his lab. Tom motioned him to sit down.

“Hello? Is this Miss Donna Lynn? The young pilot who landed out on Fearing Island a few months ago?” He listened for a moment. “Good. Miss Lynn. This is Tom Swift. We met out there. Listen. You asked me for something I didn’t think I could do for you. Remember?... Yes. That’s right. About your father. It seems that I’ve found the *Fairfax* and I believe your father’s remains might still be on her.”

Bud walked into the room and could hear the girl scream with delight as Tom held the receiver away from his ear.

“We recovered the logbook from the ship already but will need to wait to get permission to retrieve any remains. Is there some sort of support group for families of the crew?... Great. How do I contact them?... Fine. Listen. While you get their information I’m going to make a few other calls. Let me give you the name and number of my secretary. You give him all the contact info and I’ll keep you posted... Oh, no need to thank me yet... Okay.” He gave her Munford Trent’s phone number and then said, “Goodbye!”

“Sounds like you’ve made a friend and possibly lost an eardrum, Tom,” Bud said as they both left the room.

The new grapples were finished a week later and Tom, now armed with an official request to recover all possible remains of the crew in hand, reassembled the OTuS crew. They helped with the installation of the new grapples and then tested them right in the harbor.

Everything worked in the shallow depths so they resupplied the giant submarine with two weeks of provisions and set out that night.

On arrival, Tom easily determined that it would be nearly impossible to cut the aft end free from the rest of the ship. There was far too much steel to cut through and too little time on their current mission. He hoped that a combination of the logbook entries along with any photographic evidence they could collect while retrieving the human remains would satisfy the insurance carrier and they might pay out; not only to the ship owners but to the families who could use the life insurance monies to get on with their lives.

He took a team of six crewmembers plus Bud down, each man carrying four sealable bags to be used to stow the remains.

“You’ll probably only find bones, but—and I know that this is the nasty part—if you find any flesh or other tissue, pack that up as well. Try to keep different bodies separated where possible. If in doubt, call me and I’ll come make a decision.”

Five hours later they were certain they had retrieved almost every major bone from the remains of each member of *Fairfax’s* ill-fated crew.

Hundreds of photographs had been taken before touching any remains. As Bud gathered the other divers outside the bridge, Tom swam down into the engine room.

The *Fairfax*, like many ships of her era, featured three giant diesel engines that ran generators. That electrical power was what drove the massive motors that spun the shafts and the ship’s screws.

He immediately saw the most notable probable cause of the sinking and photographed it. The inward-facing hole he had seen when he first discovered the ship was right in the engine space, almost twenty feet tall and at least nine feet wide.

“Everything must have flooded before they could do anything about it. And, with the power down, they couldn’t run the pumps or even call out a Mayday,” he told his crew once they were back on the submarine.

It required a week after turning the remains over to the proper maritime authorities for the team of forensic coroners to determine who was who and to package up each set of bones.

Once Tom knew that everything was ready, he placed another call to Donna Lynn.

“Oh, hello, Tom,” she said. “We’ve all heard the great news. Well —” her voice slightly choked with emotions, “at least it is news that gives us all closure. So, *now* can I thank you?”

“Sure,” Tom said. “But, I still would like to do something for you

and all the family members. We have a giant research ship that I can use to take everyone out over the site of the *Fairfax*, and we can have a memorial ceremony or whatever you would all like.”

“That would be wonderful. Oh, Tom. You’re the greatest! Would it be possible—I mean we’ve all been taking about how appropriate it would be—could you take the remains back down to the ship? We all think that a burial at sea is what our fathers, brothers and uncles would want.”

Tom agreed. “And,” he said, “if you wish we can do something more than slipping them over the side. We can actually take the remains down and put them back inside the ship. I can even take down a closed-circuit camera system so everyone topside can watch.”

Donna was excited about the possibility and promised to contact everyone to check if they liked the idea as well.

And so, five days later Tom stood on the deck of the *Sea Charger* with the eighty-nine family members, Bud, Sandy, Bashalli and the chief Chaplain of the Merchant Marines celebrating the lives of the lost men. He had flown them all out aboard the *Sky Queen*.

At the end of the ceremony, Donna Lynn approached Tom. She had a few tears clinging to her cheeks. “Thank you, Tom” she said softly. “You can’t begin to realize what you have done for all of us.” She went up on tip-toe and kissed him on the cheek.

Tom looked over at Bashalli. She had tears streaming down her cheeks as she leaned over and said into his ear, “You have made me very proud, Thomas Swift. You deserved her kiss.” She added one of her own.

A cargo seacopter stood by next to the ship. Soon, Tom, Bud and the Chaplain climbed down the set of stairs on the side of the ship and entered the seacopter. The carefully wrapped remains sat in the aft section, ready to be moved back to their final resting place.

As the chief bosun’s mate of *Sea Charger* piped them off, Tom closed the hatch and soon had the seacopter dropping toward the wreck.

He turned the underwater camera on as soon as they began the descent and kept up a monolog of what people were seeing as they headed downward. “I’m switching over to our special underwater lamps. Things will go black for a second, and then you’ll be seeing everything in bright, full color. Regular lights can only penetrate so far and the deeper we go the darker blue everything would become until it went black. This way you will all be able to see everything we do.”

Soon, the crowd above let out a gasp as the hull of the *Fairfax* came into view. Later, Bashalli told Tom how most people hugged

and wept openly at the sight.

“I’m handing over the microphone to the Chaplain while Bud and I get suited up. I’ll be wearing a helmet camera once we go outside and we’ll switch your monitor over to a split screen, half this camera and half my helmet.”

The Chaplain took over and began a simple yet beautiful maritime burial service. Minutes later the families could see both the long view of the ship and Tom’s view as the wrapped bodies were brought out of the seacopter and carried over to the waiting bridge. It had been decided that the final resting place should be in that glass-enclosed room.

Each of the linen-wrapped bodies were moved through the hatch as the Chaplain read out the name of that crewman and the names of those he left behind. Last in was *Fairfax’s* Captain.

Tom cut the microphone in his suit from broadcasting up to the ship and put it on a private channel to Bud. “Now that we’re down here, that whole radioactive paper thing is getting to me, flyboy. What say we let the families go back without us and we use the seacopter to do a little exploring?”

Bud smiled. “Almost as if you were reading my mind, Tom.”

They returned to the seacopter just as the Chaplain finished his service.

“Thank you ladies and gentlemen. We will be up with you in about ten minutes.”

When they arrived back on the *Sea Charger*, the family members were enjoying a light beverage and dessert party prepared by Chow. Everyone took turns thanking Tom. He received hugs and kisses from all the women, girls and children, along with hearty handshakes and even a few hugs from sons, brothers and fathers.

Tom and Bud bade them all farewell as they departed in the *Sky Queen* an hour later. Only Sandy, Bashalli and Chow remained behind.

Tom explained that he and Bud were going back down to make certain everything was closed and tight, and to set up an alarm system that would notify authorities should anyone disturb what was now a protected gravesite.

As they suited up down near the wreck, Bud asked, “Do you think we’ll find anything. I mean, anything that might have made that paper radioactive?”

Tom shook his head. “I don’t really thing so. It could just be a fluke or even something that happened years before the accident. Remember. Her home port was north of the nuclear plant that had

problems out our way many years ago. It could have been an old logbook that was in storage from way back then. Who knows?"

Armed with a map of the inside of the ship and a miniature Geiger counter each, the pair headed back to the ship. Tom would make a complete check of all spaces from the main deck up while Bud took care of everything below.

As he suspected, there was a small amount of background radioactivity all over the ship. Tom noted that it was a tiny bit higher on the Captain's desk where the logbook had been.

The Captain's wife had provided him with the combination to his private safe. Tom opened it. Inside was a stack of videodiscs, now totally corroded, along with a few pieces of the Captain's private belongings.

Tom shoved everything into another sealable container. He had promised the woman to bring back anything he might find, especially the man's wedding ring. That item was the last thing Tom removed from the safe.

An hour later he had finished exploring his portion of the ship. He was about to call Bud when Bud's voice came over the underwater phone. He sounded agitated.

"Uh..... skipper? You need to get down to the aft hold right now!"

"What's up," Tom asked as he quickly swam down a series of ladders and to an open hatchway just forward of the command and crew section. Bud was inside the doors but his light was off. Tom wasn't certain why, but he turned his off before entering the space.

"What gives?" Tom asked.

"First, turn on your counter." Tom did so and was shocked to see it registering up in the eighty Roentgen range.

"See that?" Bud asked.

"I sure do."

"Okay. Now, take a look when I turn on my light."

Bud's bright aqualamp came on. It was so bright that Tom had to blink. When he was able to see again, he stopped breathing.

Sitting in racks, their restraining straps now eaten through with rust, sat six cylindrical objects, fifteen feet long, each outfitted with fins at one end.

"Oh my god!" Tom exclaimed seeing the markings on the side of the closest one. "*Nuclear bombs!*"

CHAPTER 10 /

THE MISSION BEGINS

“WHAT DO we do?” Bud asked in a hoarse whisper.

Tom thought a few seconds before answering. “The first thing we do is go get some strapping materials and get these things cinched back down. Any underwater movement could tilt the ship and these things would drop to the deck.”

With concern evident in his voice, Bud asked, “Would they blow up?”

Tom shook his head. “Hard to tell. If these have been down here since she sank, they could be anything from inert to extremely unstable. You head back and bring about—” he looked at the rack of bombs and calculated the necessary strap length, “—oh, one hundred feet of nylon strap or rope. I’ll stay here just in case.”

Bud didn’t want to ask ‘just in case *what?*’ As he quickly swam down the passageway and up the nearest ladder, Tom backed out of the room and placed the bulkhead between himself and the sources of radioactivity. His counter immediately dropped to below thirty.

Bud returned five minutes later with two long coils of nylon rope. Together, they tightly wound the rope around each of the bombs and secured them to the rack. Fortunately, Tom noted, only the old, thin metal straps had rusted through. The rack was made of some galvanized metal and showed little damage from the saltwater exposure.

Once back onboard the seacopter, Tom sent it up as quickly as possible. He mentally was going over what his message to Enterprises was going to be.

“Enterprises. Tom here. Do you read?” He was routing his call up through the Outpost using his Private Ear Radio system. He knew there was virtually no way anyone could intercept the call, but still decided to choose his words carefully.

“Enterprises here, Tom. Go ahead.”

“Please connect me with my father,” he requested.

A moment later, Damon Swift answered. “Hello, Son. How did the ceremony go?”

“Find, Dad. Listen. Bud and I just located a *big surprise* out here. I don’t want to say it out loud, but think Bikini Atoll and other really similar stuff.”

There was silence at the other end of the line. Then, “Are you certain?”

“Unless someone is playing a nasty game, I’m absolutely certain. Can you get to the Admiral and tell him? We’ll stand by out here. Perhaps he can get out to Fearing and come here with another seacoast.”

“I’ll get right on it. Be careful. My suggestion is that you stay dry right now. Okay?”

“Okay, Dad. Understood. Out.” He turned to Bud. “Dad will know what to do.”

The return call came ten minutes later.

“Tom. Admiral Hopkins is getting with his superiors and with the Joint Chiefs right now. He wanted to know if you could take a picture of one of the surprises, especially the markings, and transmit it.”

“I still had the video camera turned on while Bud and I were down there. Stand by and I’ll send the last ten minutes or so of the digital file through to you...”

He hurriedly tapped out a series of commands into the onboard computer and soon had the entire video file open. A few quick clicks marking the start and completion of their time in the weapons’ storage room and he created a new file which he immediately encoded and sent to Enterprises.

“I’m back, Dad,” he told the older Swift. “You should be seeing the file right now.” He could hear his father typing for a moment.

“Got it, Tom. I’ll get this right to Admiral Hopkins. Are you and Bud good to stand by there for an hour or so?”

“Sure. We weren’t in the room with them for long enough to have any issues. I’ve checked both of us and we’re fine. Call me when you hear anything.”

When his father called back, it was with the request to come home immediately and be prepared to meet with the Admiral.

Tom wasted no time and soon he and Bud were skimming over the ocean at the seacoast’s top speed. They reached Fearing early that evening and headed straight for Enterprises.

To Tom’s surprise, the Admiral and a contingent of three Government scientists were waiting for him.

He apprised them of the find and then walked through the video file practically frame by frame.

“Well, gentlemen?” the Navy man asked his scientists. “Whose are they?”

Looking miserable, one of the men told him, “They were ours, sir. The four on the lower racks are from a shipment of unarmed devices that were being sent to a friendly nation in Western Europe via an intermediary in eastern Africa.”

“Unarmed? No eggs? Are you certain?”

“Empty baskets, sir,” another of the scientists answered.

“At least,” added the first man, “when they left us.”

Admiral Hopkins thought this over for a minute. “What about the two on top, then?”

The three men looked at each other, all shaking their heads.

“We’ve never seen them, sir. Not from any authorized U.S. source. The lettering is English, but a couple of the designators are different than we use. Frankly, without having them here to study—to disassemble—we’re stumped!”

“Sir,” Tom began, looking at the Admiral, “we can use the new submarine to go there and retrieve them. If you can supply us with a couple of technicians to ensure that we don’t do anything foolish, we can leave as soon as tomorrow.”

It was decided that this was the best course of action, so Tom agreed to transport the Admiral and his two chosen people the next morning at Fearing Island. The techs joined Tom in the giant submarine; Admiral remained behind to attend to other matters.

It required two days to traverse the ocean and arrive at the site of the wreckage, another full day to carefully remove all six of the devices and stow them in ultra-strong tomasite containers, and two more days to get back to port.

As the nuclear technicians worked with the Fearing people to offload the containers and get them into a Navy transport jet, Tom and Bud walked to the radio room. There, Tom placed a call to fill his father in on the operation.

“Glad you called right now, Son,” Damon told him. “I’m sitting here in the office with Admiral Hopkins, Doctors Heinrich Schneider and Alison Clark, and the Secretary of Defense.”

Tom whistled. That was a room full of powerful people. He knew both of the doctors by name and reputation. They were among the top five nuclear scientists in the free world.

“Uh... am I on speaker right now?”

“Not yet, but I am putting you on right now.” There was a slight click and Tom could detect an increase in the ambient noise. “Good day, Mr. Secretary. Doctors. Admiral. We are packing things up right now and everything should be back home in two hours.”

“Good news, Tom,” the deep voice of the Secretary of Defense boomed out. “Smooth or rough?”

“Pretty smooth, sir. No surprises.”

“Other than the obvious one,” Admiral Hopkins added, rolling his eyes.

“Thomas. This is Alison Clark. We met briefly a year ago in Dusseldorf at a conference.”

“I remember you very well, ma’am,” Tom told her.

“Yes. Well, when can you be here? We have been asking your father for some—let us say, favors, and he wants your input.”

“I’ll be back in the air in ten minutes and at Enterprises an hour after that. Tops.”

“Then we look forward to your attendance.”

“See you soon, Son,” Damon added before hanging up.

Tom looked at Bud, who looked at him. Both boys shrugged and left the radio room without a word.

As promised, Tom walked into the office sixty-five minutes later.

“Good. You’re here,” Damon commented. “Sit down, Tom. This is quite the situation you’ve uncovered.”

The Admiral and Defense Secretary took the lead in telling Tom about a past top secret operation to provide nuclear weapons to a secret stockpile located in an un-named European country.

“We wanted to have them available at a moment’s notice, Tom,” Hopkins said. “They were to be shipped totally empty. Just the casings with nothing else inside. No electronics, no detonators, and certainly no nuclear materials. When you were removing all of them from *Fairfax*, did the bottom four feel different to you? Lighter, perhaps?”

“The nuclear technicians kept us away from all that, sir,” Tom explained. “We never touched them. Pretty much status quo!”

The Secretary let a long sigh out through his nose. “Well. It looks as if we wait to hear from the A Kids. That’s the reference name for the Atomic Energy Decommissioning Team, Tom. They have the expertise to pull those cases apart safely and then tell us exactly what’s inside.”

Tom nodded, not knowing what else he might say.

“So, tell him why we came up for our little visit,” Doctor Schneider urged.

“Yes. Well.” The Secretary let out another nasal sigh and leaned forward. “We have a problem out there, Tom. Damon. The fact is

that there are so many missing nuclear submarines and weapons that we've lost track. When I say, 'we,' I mean all of the nuclear nations. Lots of secret shipments in cargo jets and ships that have disappeared. We're pretty sure that Israel lost three nukes in a botched training mission at the lower end of the Suez Canal. North Korea lost a diesel sub filled with processed nuclear materials bound for the Middle East five years back. There's even some scuttlebutt that our British buddies had to eject a hot reactor core in the Mediterranean from one of their subs a couple decades ago. Obviously, nobody can admit to this or it would cause panic. We can't even discuss the fact that any civilian ships have been carrying empty devices, nuclear grade materials or even fully assembled weapons."

Tom was stunned. He knew, as did many people, that there were several "lost" submarines to there. The *Salem* almost became another one. What he had not known, what practically nobody knew, was the extent of unpublicized losses there had been.

"Given that they are out there, can I assume that you have some plan to recover them?" Tom asked. He was having trouble controlling his rising anger.

The Secretary of Defense shook his head. "Without complete, and that would mean certainly *public*, cooperation—and that assumes that each government knows where they lost things—it's impossible to know where to begin looking.

"So, we concentrate on keeping the *Fairfax* situation under wraps," Admiral Hopkins said.

Again, the Secretary shook his head. "We can't assume that this latest find will remain quiet. There is a small buzz going on about the radioactive ship's log already. We can hope that nothing else comes out about this. But, we especially do not want the full extent of the lost items known. Ever!"

"What now?" Mr. Swift inquired.

"Now," the Secretary stated looking deep into Tom's eyes, "is where I... where we ask or beg or cajole Swift Enterprises to help us find some of that stuff. At the very least—and giving us a real publicity coup—would be to locate and raise the seven missing nuclear subs out there. A couple U.S. ones and five former Soviet subs that we know about. Most with weapons and all but one with one or two reactor cores."

Tom sat back. It was becoming clear now. "That's why Enterprises ended up with the old *Demeter*, isn't it? Have you had this planned from the beginning and just now feel that your hand is being forced?"

“Tom!” Damon said in a warning tone. “Remember who you’re speaking to. Please!”

“No, Damon. He’s right to be suspicious. And, he is correct about *The Demeter*. We hoped to give you a year or so of working with her, suggesting one or two target subs in the process before springing the whole kit and caboodle. But, this find down in the *Fairfax*, only part of which we were aware of, has—as Tom said—forced us to show our hand early. I am sorry for this.” He looked at Tom and then at Damon with a worried expression.

“Mr. Secretary,” Tom said, “I am not certain why you felt that Swift Enterprises was not to be trusted with this information earlier. It might have helped us in outfitting *Demeter*—what we now call OTuS—for the actual job.”

“There are so many levels and layers of secrecy involved, Tom—” Admiral Hopkins began.

“—and many of them are and have been working against you. ‘Oh, we can’t tell you where *Salem* might be, Tom. Secrecy.’ ‘We can’t let your perfectly capable crew to assist us, Tom. Secrecy.’ Do any of you realize we wasted three days down with *Salem* before being allowed to help. Three days until we realized we had the immediate solution for a major problem that were totally wasted.” Tom was turning red. He was allowing himself to take this personally. He recognized it.

He stopped and took a deep breath.

Now, more calmly, he continued. “Sirs and madam, we perform top secret work day in and day out. We work on top secret Government and military project all the time. Many of our own projects are company top secret. Please just trust us and partner with us rather than making us fight for each and every bit of information. Please! You haven’t even had the courtesy of telling us all the specs on the *Demeter*. What if we’d taken it below crush depth without realizing we were in the danger zone?”

There was silence at the table for a full minute. It was broken when Dr. Clark said, “I fully agree with young Mr. Swift. If we are going to ask for his help in doing what we have utterly failed at for many, many years, then it is time that he, his father and his selected team be treated as equals!” She gave an emphatic nod and then sat back, arms crossed under her breasts.

The next hour was spent discussing the Government’s desired goals starting with which targets were priorities and which could wait. In the end, Tom was asked to bring the OTuS back to the Navy sub base to be outfitted with advanced computer equipment and where there would be Navy personnel to perform the job.

“You will get back all the top secret instrumentation we thought

necessary to remove. I'm sorry," the Admiral told them.

A week later and under cover of darkness, the OTuS surfaced off the coast and made for the docking building. Two hours later she was being lifted back up out of the water on her floating dock.

Tom left the base with his crew two days later after a series of meetings and watching the first of the refit steps beginning. The large SONAR array in the nose was un-welded and pulled back. It had been explained that the transducers currently installed were nowhere near the quality or as effective as what would be installed over the next several days. And that was just the start.

Returning to Enterprises Tom sat down and began thinking of what would be necessary from his side of things.

Bud popped his head in the laboratory door one afternoon and then came rushing in as if shoved from behind. His pushers turned out to be Bashalli and Sandy, both in colorful summer dresses. Sandy had a copy of that afternoon's edition of The Shopton Bulletin.

"So, big brother. What's this all about?" she asked shaking the paper in his direction.

"Give me a chance to see what it says and I'll tell you."

Sandy tossed the paper to him. He looked at the headline, eyes going wide, and then read the story underneath.

"Uh..." was all he could say. The headline read:

SWIFTS TO HELP NAVY ELIMINATE SUNKEN NUCLEAR SUBS!

"Is that true, Thomas?" Bashalli asked. "Are you going to go out to pick up those dangerous old submarines as it describes?"

Tom was visibly stunned. "Before I say anything I need to make a call. Please just give me a few minutes." He picked up his phone and dialed a number. "Is the Admiral in? It's Tom Swift... Okay, I'll hold." He covered the receiver, "I've got to see if this is an official announcement. George Dilling didn't say anything about it— yes, hello, Admiral. I am just looking at a copy of our local paper. The main headline says that we are now helping the Navy raise sunken nuclear subs. Did you authorize this?... Hmmmm. I see. Well, it would have been nice to have a heads up, but now that it is out in the open we'll have to start fielding a slew of calls... refer them to your office? Sure. Glad to. Thank you, Admiral. Good-bye."

He turned to his friends. "Okay. It is official that Enterprises is working with the Navy. The article spells it all out, fairly accurately, which is a bit of a surprise. We have been hired to use our new giant submarine to search for and where possible recover all the bits and pieces from a couple U.S. nuclear submarines that have been missing

since 1963 and 1968.”

“Is this exciting, or is it as dangerous as I imagine,” Bashalli asked, her eyes showing her concern. Tom rose from his stool and gave her a hug. “We’ve got this big, hollow submarine that we wanted to use to raise dangerous cargo from sunken ships. Perhaps even downed aircraft. So this falls right into that category. The nice thing is that everything can be done by remote control and the inside of the OTuS—I guess we’re going to have to come up with a better name for her—which is very well shielded.”

“Just as long as you are not exposed to any of that nasty radioactivity, Tom,” Bashalli told him. “I have heard of it doing terrible things to people who need to be future mothers and fathers...” she looked at him meaningfully.

Tom laughed. “Don’t worry, Bash. Sandy. Bud and I will be safe and snug.

“Say, Tom,” Bud said, “about that name things. The headline gave me an idea. I’m not sure about a common name like *The Sloop John B*, or anything, but how about calling her a Nuclear Sub Eliminator?”

Tom considered it for a moment and then stated, “I think we need to leave the ‘nuclear’ word out. Not PR friendly. We’ll be out in the oceans, so maybe Trans Oceanic Submarine Eliminator.”

Or,” said Sandy surprising them both, “just make is short and sweet and call it an Oceanic SubLinator!”

The boys looked at each other. Tom looked at Bashalli. She was smiling. “I like it very much Tom. Good name, Sandy,” she complimented her friend.

“Okay. Oceanic SubLinator it is!” Tom declared.

To celebrate the occasion, Bud suggested the boys take the girls out for a little sail on the lake. “A couple hours of sun and fun and wind and spray. What say?”

The girls were, of course, enthusiastic. Tom wanted to beg off, but he then thought the better of it. He needed to find something to clear his head, and what better way than to enjoy time with his girlfriend, sister and best friend.

Once on the lake and tacking along with the wind, Sandy asked, “So, can you tell us about these submarines? I mean, only if it isn’t going to get to some point where you stop and say, ‘sorry. It’s a secret.’”

“Well, what I can tell you is that the older submarine was called *Thresher*. She went down with all hands back in 1963, somewhere off the coast of Cape Cod. Estimates are between two hundred and two hundred fifty miles out. She had just finished being overhauled

and was doing a deep dive test. Nobody knows for certain, but a leak in a pressure pipe might have caused her reactor to shut down. No power, and no ability to come back up. She got too deep and broke up.”

Sandy and Bashalli both shuddered. “Oh. How awful for those poor men,” Sandy said.

“Once the implosion came it would have happened so fast that death was instantaneous. The only good thing to come out of it was that a whole series of safety changes were made to existing and new subs.”

“Is she in one piece, skipper?” Bud inquired.

“No. Some early deepsea photography shows that she broke into at least six pieces. The Navy keeps monitoring it, but the fact that her reactor is still down there along with possibly a nuclear-tipped torpedo. If there is one, it shouldn’t have been there during her trials, but there is some evidence to show that she might have had one loaded onboard as a security practice.”

“And, what of the other submarine?” Bashalli asked.

“That’s the *USS Scorpion*.”

“Was it the same cause, Tom?” Sandy asked.

“Yes and no. It is believed that one of her batteries exploded with enough force to knock out her power systems. Before they could get her back into operation, they dropped below their crush depth. She imploded as well.”

“Where did this happen?”

“Well, Bash. Nobody was absolutely sure for years and years. It was only a few years ago that what is believed to be her remains were located. You see, she came out of the Mediterranean heading for Virginia and contact was lost. Because no contact is a normal thing, nobody thought about it much until they were late getting home. There is about six or seven days where nobody knew where she was. And, as we all found out when we went out to find the *Salem*, there is no set route. In actuality, she could be anywhere along a three hundred mile corridor between the tip of Spain and the coast of Virginia.”

“You just said they *think* they’ve seen her. What’s that all about, brother dear?”

“The wreckage they’ve found is pretty deep down. There is no natural light that penetrates, and the lights that little remote submersibles carry aren’t very strong. At least, outside of about five feet. What they’ve found evidently looks mostly like the *Scorpion*, but there are some anomalies. And, they haven’t photographed her

nameplate or number designator. In any case, an entire, broken up sub is down there.”

“So, a reactor is down there somewhere. Anything else?”

“Well, Bud, according to the official manifest, she is supposed to have also been carrying a pair of nuclear torpedoes. Not as nasty as the reactor, but with a lot less shielding. The thing is, and nobody alive can know or tell us, if they were loaded in the torpedo tubes, they are possibly still intact. All that reinforced steel. But, if they were just strapped to their racks in the torpedo room, they might have been opened to the sea.”

“Won’t the bombs and the reactors just sort of peter out?” Sandy asked.

“I wish it were that simple. However, if you mean will they become safe and inert in, say, a four-and-a-half billion years, then sure!”

Sandy knew when she was being teased, but also realized her brother was deadly serious. “Really?”

“Yeah, for uranium 238, which is what they had in the reactors but more like just seven hundred million for the uranium 235 in the torpedoes.”

“Yikes!”

It was time to turn the sailboat, so Bud hauled in on the sheet while Tom swung the boat around. There was little left to be said about the submarines so the subject turned to dinner. It was agreed that a quick burger at one of the small, mom-and-pop places was what everyone wanted, so Tom steered them back into their slip at the yacht club and they headed for his car.

Sandy saw it first. “Oh, look. Someone’s left one of those annoying leaflets on your windshield, Tom.”

Tom reached out for the piece of paper, but he noticed that no other car near his had one under their wiper. Carefully, he lifted the blade and opened the folded sheet.

He blanched as he read the message:

YOU’VE MADE MY LIFE A MISERY AND
I’M GOING TO MAKE SURE YOU SUFFER.
PREPARE TO DIE, TOM SWIFT!

CHAPTER 11 /

NOT QUITE INVISIBLE... STILL DEADLY

TOM HANDED the note to Bud. "Take the ladies inside. I'm going to look around to see if I can find this joker. Call the police."

As Bud herded the girls away from the parking lot, Tom made a careful study of the surrounding area. There was another couple just getting into a small, green MG five spaces over.

"Excuse me," Tom called out. The man, someone he believed was a member of the yacht club turned.

"Oh. Ahoy, young Swift. What can I do for you?"

Now Tom recognized the man. He was one of the members of the social committee and usually responsible for collecting the RSVPs from members planning to attend various functions.

"Mr. Kransky? Did you see anyone around my car recently?"

"No," he replied walking over to stand in front of Tom. "Martha and I just finished with a committee meeting and only came out a moment ago. I believe we were just a moment in front of you and your friends. Why?"

Tom hesitated. It would be of no good use to worry the man by showing him the note. "Oh, I thought someone was going to meet me here is all," he said, hoping that the lie was undetectable.

"Ah. I see. Well, in that case, the answer is still no. As I said, we just came out a few seconds before you did. Anything I can do to help," he repeated his offer.

Tom thanked him but declined. Shaking his head a little as he walked away, Mr. Kransky hopped into the classic roadster and soon zoomed off. As he headed to the south sirens could be heard approaching from the north. A minute later three Shopton P.D. cars pulled into the lot.

"Hey, Tom," greeted one of the young officers."

"Hey, Pete," Tom replied. "Sorry to get you guys out here, but someone left this on my windshield." He handed the note to a sergeant who had just walked up.

"This is serious stuff, if it's a *real* threat. Are you positive that it isn't one of your young friends having a little joke at your expense? I mean, really sure?"

The older man was completely condescending. So much that Tom reddened as anger began to rise in him.

“Sarge? Tom here doesn’t make things up. If he’s worried about this, I say we have to believe he’s being threatened.” Pete O’Brian was staring right at his superior with such a look of determination that Tom almost had to laugh.

“Hmmm? Well, if you’re certain about this,” the officer’s tone had now changed to one of contemplation. “Let’s get this out over the air. We’ll do a quick scan of this and then get it over to your security people. Ames. Right?”

Tom verified who it should go to and then thanked the officers for their prompt response. While they took a walk around the area looking for anything suspicious, Tom was rejoined by Bud and the girls. They were soon zooming out of the lot and back in the direction of the Swift home.

Although the police department did send over a fax of the note, they refused to allow Harlan Ames to have the original. He was frustrated, but could do nothing. He did as much checking as he could over the next few days but came up with nothing, the same as the Shopton P.D. did.

Tom put it behind him and headed back to Fearing along with Bud and several new crewmembers for the SubLinator. They would take her out the following evening, heading for the known location of the *USS Thresher*, off of Cape Cod.

When Tom notified the Navy of his intent to try to raise at least one section of the remains, he was told that the safest and probably easiest section to find would be the sail.

“We have remote vehicle photos showing that section near the SONAR dome, the stern planes along with part of the aft section, some of the bow that might still hold her torpedoes, plus lots of other pieces. It’s pretty spread out. We really suggest that you get a good radiation count from the reactor. We do every year, and it is just about that time again. You’ll save us a trip. Just, don’t try to raise that. Yet.”

Tom admitted that he was hesitant to bring that component up as is. “I need to get some time back at the base where I can get up inside and coat this with our tomasite plastic. Then I can be certain of no leakage affecting the crew.”

Bud was, as always, eager to go. “Why don’t we pick up everything except the old reactor, skipper?” he asked as the SubLinator put to sea that evening.

“The biggest reason, Bud, is that we don’t have anything to put pieces in once we grab them. Remember. This sub was meant to carry whole submarines, and so far I’ve only outfitted her with three claws.”

“Oh. Right. So, when do we get there?” Bud asked, brightening.

Tom punched in a few numbers on the navigation computer. “At top speed we can be on site in just about twenty-three hours. Why?”

“Oh. I was just wondering how much time I’ll need to spend annoying you while you’re trying to figure out a way to bring up that reactor.” Bud smiled at Tom. “You are churning that one over, aren’t you?”

Tom had to admit that he was, but he told his friend, “We’re going to play this the Navy way this time. I am serious about getting the entire bay coated in tomasite. That, plus it would be nice to devote at least a part of the bay to some sort of collection container.”

“Giant dumpster sort of thing?”

“Exactly. I sometimes wish that I would think of all these little things up front, but I am starting to realize that our grippers and their winches need to be mounted on rails so we can move them around in the bay. Otherwise it will be pretty difficult to drop small stuff into any container, no matter where it gets mounted.”

As soon as the submarine was on a northeasterly heading and at the cruise depth of three hundred feet, Tom turned the controls over to the first watch. He headed for his stateroom and tried to catch a few hours of sleep, but thoughts of various improvements kept entering his head. Five hours later he got out of his rack and splashed some cold water in his face and hair and then towed off.

Bud was sitting with two cups of coffee in the galley.

“Here. I figured you’d be up pretty soon. Milk and one sugar.” He slid the warm cup across the table to Tom. “How many world-changing inventions did you come up with instead of sleeping?”

Nodding, because Bud knew him very well, Tom grinned. “Nothing that is going to beat sliced bread, but I’ve decided what we’re going to do later today and then how to tackle the issue of collecting smaller bits.”

“Do tell.”

“Well, as I said before, I’m certain that the grapple claws and their winches need to be moveable, so, I’m going to take a page out of the heavy manufacturing sector and build a two-level rail system.”

“One for the big trains and one for the smaller ones?”

“Not exactly. What it is, though, is one set of rails that will run the length of the bay. For strength, probably three parallel rails. Then, hanging from these, perpendicularly, will be shorter rails that go from side to side. The winches will be attached to these rails.”

“Oh, I know what you mean,” Bud said. “The short rails can move

all the way from front to back, and the winches can move all the way from side to side, so you can position them practically anywhere you want. Do I get another gold star?”

“Take two!”

Bud pretended to blush. “Ah, gee, Tom. That’s way too many stars for our little Budworth. You’ll spoil the boy.”

Tom took a friendly swipe at Bud’s head. They sat drinking their coffee, talking about the upcoming operation. Tom knew that the new maneuvering capability of his grippers would make it easier to get hold of the sail or SONAR dome—the two pieces he believed would be the easiest to recover—but was contemplating what it would be like working from their operating depth all the way down to the resting place of *Thresher*.

“Penny?” Bud asked.

“Huh?” Tom was concentrating so hard he barely heard his friend’s question. “Don’t think I know anyone by that name,” he muttered.

“No, Tom. Penny for your thoughts. It’s an old saying. Something you hear around the house. Say the secret word—”

“Oh. I was just thinking about what it’s going to be like with us sitting at two thousand feet and the *Thresher* sitting down about eighty-four hundred feet.”

Bud thought for a minute. “Hey. You remember when we were seventeen and your folks took us to Atlantic City?”

“Sure.”

“So, who stood there looking at the machine for an hour and then began pulling every good toy out of the giant claw game? You practically never missed. Quarter in... bunny rabbit out. Quarter in... model fire truck out.”

“That’s right,” Tom said, remembering. “It was pretty easy once I figured out what needed to be done.”

“And, you’ll figure this one out. Only, you won’t be able to stand to the side watching other kids lose their allowances first.”

Tom suddenly felt much better about what was going to take place. He thanked Bud and got up. “I’ll be in the retrieval control room, practicing.”

With nothing else to do, and his shift not starting for another two hours, Bud followed Tom down the passageway and into the room that had been outfitted with the controls for the entire recovery bay; it had originally been the launch control room for the cargo of attack submarines. The room was almost wrapped around in flat panel

display screens. Six of them showed the empty bay from both sides, one from each end, three would bring up split-screen images from the two cameras mounted on each claw, and two others would be put into operation once Tom had the opportunity to design and build a pair of remote robotic mini-subbs that might be usable to scout recovery sites.

But that would be later.

Bud watched in fascination as Tom maneuvered one of the giant claws as it dangled from its winch. In just a few minutes he was able to control its motion with a finesse Bud could only marvel at.

When Tom took control of two of the claws and began moving them in unison, Bud slipped out of the room. One of the members of his watch team was passing by and asked Bud what was going on.

“Tom is performing underwater ballet with our grippers,” came the answer as Bud walked away.

When the SubLimator arrived, Tom called for a minimum watch to be set and for everyone else to get some sleep. He arranged for the first pair on watch to be relieved in four hours.

Bright and early the next morning, Tom took control and positioned the submarine at the GPS coordinates believed to be over the main grouping of debris. “Give me ten percent negative ballast,” he called out. “We’ll use negative buoyancy to drop rather than to power our way there. Make sure all relief valves are open in the bay.”

“Roger, skipper,” the man at the dive control station replied. “All valves indicating open. All tanks at seventy percent fill. Negative buoyancy at eight... nine... holding at ten percent.”

“What’s our rate of descent?”

“Descent steady at eighty feet per minute.”

“Blow partial ballast at eighteen hundred feet. I want to hold her just above two thousand.”

“Set for slow at eighteen-zero-zero for station at twenty-zero-zero. Roger!”

Tom had to marvel at his crew. Generally, when it was a Swift jetmarine or seacopter, or any of his other underwater craft, things were relaxed and informal. But, onboard this behemoth of a submarine, it had just been assumed that near-military protocols should be used.

About twenty-three minutes later, the dive man called out, “Passing eighteen hundred feet. Partial ballast blow complete. Descent slowing.”

Then, a few minutes later he called out that they had arrived.

“Keel at two thousand feet, skipper. Holding steady. Hull flat at even bubble. All indicators steady and normal.”

“So now, gentlemen, it is time to do a little underwater trash picking,” Tom said as he got up from the command chair and headed for the bay control room.

The hydraulic doors unlocked and began their ponderous opening operation. In all it required five minutes before all six of the thirty-ton sections of hull had been drawn up inside the hull to their full open positions. There was a small vibration and a thudding sound as each clicked into place.

“Now for the fun,” Tom declared as he activated the control panel for winch and claw number two, the central-most unit. Bud and the three others who had crowded into the small room behind Tom watched as the claw’s associated screen began showing images from the two built-in cameras. One, facing directly down, showed only small bits of drifting vegetation backed by the inky darkness of the ocean below. The other—mounted on the upper collar and capable of moving around it to provide a 360-degree view straight out and 60-degrees up or down—currently was aimed up at the bow of the giant submarine. As the claw went deeper, the angle was changed to a downward one, and also showing little except of the darkness surrounding them all.

Tom reached out and pressed a switch graphic on the all-glass control panel in front of him. Like the LCD screens used in many of the newer Swift aircraft, this touch-sensitive screen could be used to display any of the vast array of instruments associated with the winch system. The switch he pressed turned on the aqualamps located in five places around the claw.

Immediately the cameras switched to the filters that could utilize this amazing alternate wavelength light. The pictures on the screen changed to bright, almost daylight conditions. The downside camera was focused automatically. In seconds there was a gasp from Tom’s impromptu audience.

It was obvious what had caused it. Directly below the claw, in an area that must extend several thousand feet in three directions, was the unmistakable results of a catastrophic implosion of the missing submarine. Tom used the zoom feature and they were treated to additional visuals. The GPS positioning information provided by the Navy had been correct. They were almost directly above the crumpled sail portion of the dead sub.

As with most nuclear submarines, the sail contained the forward dive planes, those pieces most like the elevator flaps on an airplane. Tom and his companions could see that one of the planes had been torn off and the other was wrenched into a twisted position down

and against the body of the sail. The angle was such that they could not see any designation on the sail, but all knew this would prove to be the *Thresher*.

It was just as he had expected to find things after studying some of the old underwater photographs taken by diving bells and robotic submersibles.

What he absolutely did not expect was to see the obvious semi-circular trench that had been made—possibly quite recently—by what appeared to have been a second submarine. He pointed it out to the assembled group.

“Are you certain, skipper?” Zimby Cox asked when Tom mentioned this.

“If you take the size of the sail for reference, that trench is about twenty feet wide and over two hundred feet long. I’m pretty certain that another submarine set down there at some point. I just don’t know how long ago that might have been.”

As the claw descended, more eerie sights came into view. A large box-like structure with a small armature rested on its side near the bottom of the sail.

“That looks like their plotting table, Tom,” John Havey commented. John was the grand nephew of *Thresher*’s commanding officer at the time of the accident, and an accomplished ex-Navy submariner. “The tracer arm is still attached.”

“Where would that have been?” Bud asked.

“Right under the sail, one deck below the main top deck. In her control room.”

As the claw neared the bottom, Tom swiveled the upper camera around. As expected, “SSN-593” was visible on the side of the sail now half-buried in the silt.

“Well, here we go,” Tom said as he began maneuvering the claw over to the waiting wreckage.

It took five attempts before he had a good grip on the body of the sail. He set the tread grippers to adjust as necessary and then reversed, slowly, the winch. With practically no effort the salvaged piece came away from the bottom. Clouds of silt and much swirled up and around as Tom lifted it away.

Tom could see, and hope that the men behind him missed, the empty boot that dropped from the torn-open bottom part of the sail and drifted down to the sea floor.

It had required only forty minutes to lower the claw. Now, moving slowly so that the fragile cargo would not be dislodged, it took over

an hour to get it from the eighty-four hundred foot point up to about four thousand feet.

Some of the crew had drifted in and out of the recovery room as Tom kept a watchful eye on things, making small corrections when necessary. Only Bud had remained throughout.

“Skipper? Bridge,” came a call on the intercom. Bud reached past Tom to activate the communications device.

“Tom’s occupied, Slim. What’s up?”

“We’ve got a visitor! It’s staying out about five miles off, but there is unmistakable noise in the water and we let off one disguised ping. Came back with something in the metal family. Not too big, but it could be a sub nose on to us.”

“Can you illuminate it?” Tom asked, indicating to Bud that he should take over the controls. Bud slid into the chair that Tom vacated and tried to copy what Tom had been doing.

“Negative. It’s on our port side and too far abeam to get our aqualamps on. Sorry. They only sweep back about fifty degrees.”

Well. There’s another goof, Tom chided himself silently. “I’ll be right up. Bud, just keep that sail rising at its present rate and be sure to call out when it gets to twenty-five hundred feet.”

Entering the control room, he took a look at the recording of the SONAR signal. As the sonarman had said, it appeared to be a moderately small, but definitely solid, metallic object.

“We’ve been hearing some noises from them. If it’s another submarine, it must be either a nuke or running on batteries. The strange thing is that the noises I’m hearing seem to be like a stream of fine bubbles. Like they’re oozing out of the thing under high pressure.”

“Down here that can’t be a good thing. I wish we could swing toward them. As it is, we’re sitting broadside to them. Not a great position in case they’re up to no good. With the cable out and the sail coming up we don’t dare move. Guess I’ll need to make the next set able to revolve so they can stay in one orientation while the sub spins.” He paused, then, “I’ll need to figure out a way to make the sub spin as well.” In spite of the seriousness of the situation, Tom grinned.

“Tom,” Bud called out through the intercom. “I’ve just turned the upper camera toward our visitor. You need to come see this!”

Tom ran back down the passageway and into the room with Bud.

“It hit me that we’ve got that moveable camera and all...” Bud started, “and the aqualamp and filter. So, I just aimed it over to the side.” He pointed at the screen.

A chill ran down Tom's spine. Pointed directly at them, with torpedo tubes visibly open, was the unmistakable shape of a submarine. Although they couldn't see enough of it to provide any identity, Tom knew that it was an earlier model nuclear sub, and not one of U.S. origin.

"Good thing they can't see that we've painted them with the aqualamps, huh?" Bud asked.

"Yes, but I wish we didn't have to worry about who they are or what they want."

Bud slid out of the chair and let Tom sit back down at the controls. "It looks pretty old. I'll bet we can outrun it if we need to. Too bad we can't carry any of those bubble thingies you designed."

"I'm not sure I'd know how or when to use them," Tom admitted. "It was tough enough figuring out how something supposedly hypothetical could be built."

"Then, we need to get someone onboard who does. Right?"

Tom turned the zoom control as far as it could go. It already was at ninety percent but it did bring the sub closer. Just enough, as it was, to see the torpedo tube covers slide back into their closed position. He let out a small sigh of relief.

"Think that's the sub that set down by the sail?"

Tom wasn't sure. "Could be. Maybe not today but at some point. With that mucky silt down there you just can't be sure how long ago anything might have been there. Go forward and make sure that we're ready to leave the area as soon as I get our little prize on board. It should be—" he checked his instruments, "—another fifty minutes."

The mystery submarine remained stationary until the gripper was within a few dozen yards of the bottom of the SubLimator. Then, without warning it turned to starboard and began to slowly move away.

Tom, although busy guiding the load into the bay, took the opportunity to take a close look and video of the now exposed side of the sub. The bright aqualamp light illuminated it as if it were on the surface.

"And, that," Admiral Hopkins told Tom three days later when they met in the Admiral's office to review the video, "is what we call a ghost boat. She doesn't exist. Well, actually," he said quickly sensing Tom's forthcoming question, "she did exist. That boat is one of old November class of Soviet era nuclear submarines."

His adjutant took up the narrative. "They were built in the late nineteen fifties. A total of fourteen of them were built. Three were destroyed in accidents. We don't know how many men lost their lives in those. We do know they were unreliable and had a lot of accidents

and breakdowns with some additional deaths. Six are known to have been scrapped and broken up. The other five have been spotted at various times in two ports, wallowing in such deteriorated states that there is no way they could ever be floated again.”

“So where did this one come from?” Tom asked.

“We are absolutely at a loss to explain it, Tom. We’re even at a greater loss to explain how one of them could still be active, much less at a depth of over six hundred meters. That’s more than fifty percent greater than what they are supposed to have been capable of.” The Admiral was shaking his head as he said all this to Tom.

“Are you certain that they didn’t make more than the fourteen?”

“Even though we didn’t have satellites back then, we did have a good network of information gatherers. Records show that three of our people worked right at the shipyard where these were built. They gave us good info on twenty-eight reactors. At two per sub, that’s fourteen.”

“Are you certain they didn’t know you were videoing them, Tom? What I mean is, even though you *might* believe they thought you didn’t know about them, is there some chance your light could be detected? It might be important. After all, they are potentially deadly, visible or invisible light,” the aide said.

Tom explained about the invisible-to-the-human-eye nature of the aqualamps. That the combination of filters and wavelength adjustments, or special coatings on view ports, that were necessary to interpret the light would be a practical improbability to duplicate.

“What do we do next,” Tom asked.

They all agreed that bringing up the reactor section next was vital and therefore their next target. Tom agreed to make haste to prepare for that voyage.

He had delivered the old sail portion of the *Thresher* directly to the Navy base at Kings Bay. While there he arranged for the SubLinator to be raised and readied for some additional work to be performed by Enterprises’ personnel.

If it returned, the mystery submarine would be observed as long as it made no outward attempts to interfere with Tom and his crew. Also, Tom would raise a radio beacon broadcasting on a special frequency to notify the Navy in case of a second encounter. The nearest U.S. submarines and surface ships would be directed in to try to track the other sub.

“If it comes right down to it, you will be on your own for several hours, Tom. Who knows what sort of weapons they might be carrying. After all, they aren’t even supposed to exist!”

CHAPTER 12 /

NEEDLE... HAYSTACK... ANY QUESTIONS?

BUD JOGGED over to the massive water test tank heading straight for Tom. The tank—originally built to test Tom’s Jetmarine and which had tripled in size a year or so later—was about the same dimensions as a football field, including end zones, and ranged from a depth of fifteen feet at the north end to over fifty at the opposite end.

They had been back on dry land for almost two weeks, and Tom had been only rarely seen, but two sightings had been near the tank. Their mission to raise the reactor core from the *Thresher* had gone smoothly. Not only had they been able to raise the reactor section, they also brought up the forward section with all of its torpedoes—including the one nuclear-tipped weapon—and its SONAR dome. Everything had been delivered to the Navy submarine base with the Enterprises crew heading back to Shopton or to their jobs on Fearing Island.

Since that time, Tom had sequestered himself in his underground lab, working on something he said was going to be necessary to locate missing subs and weapons.

“Hey, flyboy. What’s up?” Tom inquired as he turned at the sound of his friend’s quick footsteps.

“I was going to ask you the same thing. I just flew back in from a speed test down to Fearing and was pretty sure I spotted you out here as I was coming in. What’s getting wet?”

Tom grinned at his pal. “Nothing, yet, but I’m hoping that a couple of things will be going into there in just a few minutes. Say... I could actually use your help here. I need someone to play hide-the-parcel for me. You up for it?”

Bud looked slightly confused, and then replied, “I guess it depends on whether you want me to just jump in, shoes and all, or if I get a chance to change.”

Tom shook his head. “No need. Let me show you what I’ve got and then tell you what I hope will happen.

Tom reached into a pocket and then opened his right hand to display a small glass capsule about an inch long and half that wide. Bud could see tiny threads where the two halves could be unscrewed.

“What’s that inside, skipper?”

“That,” Tom said holding the capsule up closer to Bud’s face, “is

the tip of an hour hand from an old luminous clock. It is coated in radium and glows in the dark. I'm hoping to find it out there." He swept his left arm out toward the water tank.

Bud looked Tom in the eyes, placed one hand on the inventor's shoulder, and said in a soft voice, "Uh, Tom. You already have it in your hand. You don't need to find it. You feeling okay?"

"Funny, Bud. Ha-ha. Actually, I've been working on a new type of underwater detector and need to test it out. It looks for minute levels of radiation that are not within the same spectrum as any background radiation signatures. You with me so far?"

Bud hung his head for a moment before brightening and looking back up. "You know, I think I am. Let me see. You've told me, I don't know how many times, that everything on this planet has some sort of radiation signature. Even people. Right?"

Tom nodded and smiled. "That's right. And, so far there has been very little science can do to separate out the different radiation signatures once there get to be more than about a half dozen different ones."

"So, you've magically put two and two together and come up with a way to... um... *catalog* a lot of different types?"

Again, the young scientist nodded at his friend. "Yes. Not just catalog. We should be able to home in on any one of them and track it, even if it goes through a whole field of other radiation signatures. It takes a lot of computer power to keep things straight, but it also takes one of the most sensitive receptors I've ever come up with to make it happen."

Keeping an eye on Bud so that he could ease back if the pilot's eyes began to glaze, Tom launched into an explanation.

"Basically, I needed to come up with a detector array that can scan a very wide range of frequencies—up and down the scale, over and over again—and feed that data into a whole new class of computer I've been working on for a half year or more. The programming takes over and charts out each and every radiation frequency along with its relative strength to every other radiation, its direction and any movement, then compares that data to known radiation sources and a continuous sampling of the surrounding water."

"Sounds like a lot of work going on," Bud commented.

"Not by half, Bud. You remember my Aquatomic Tracker, right?"

It was Bud's turn to nod. Tom had created that special-built submarine to track even very faint traces of organic compounds left behind by anything traveling through the water. Its main aim was to

locate a missing freighter that had been towed underwater.

“Well, the array of ‘sniffer’ inputs on the old tracker all fit within a fairly small area. Just a few square meters. In the case of my new invention, I’m creating a group of submersibles that all work together. The main unit will be fairly large and until yesterday I wasn’t certain if it would work automatically, or if I needed to keep it tethered to the submarine. That’s the half-size model on the stands over there, by the way.” Tom pointed to a fairly flat yet wide white object, about eight feet long that featured a clear nosepiece and two small propellers at the back.

“Yesterday I did a brain dump with Dad. He helped me see that that one is definitely going to need to be autonomous—even to the point of controlling everything else—so that they continue searching even after locating a target. Otherwise, we’d have to either take everything back onboard or come back later to pick the submarine up while we follow along. Once we locate something, I want to be able to recover it right then and there.”

“So, they will continuing searching while we grab a sub or something like that?”

“Right. That decision helped me realize that my first thought about having all the detector units connected by micro-thin tethers a few hundred feet long wasn’t going to work. Dad and I did the computations and it all goes to show that the detectors need to be able to travel up to a mile away from the main unit to give us the best possible data.”

“If they aren’t tethered, how do they talk to each other?” Bud asked. “Or, do they all come together every hour or so and dock for a brain dump of their own?” He grinned at Tom.

“No. Even I could see from the start that coming back together, even every hour or two would mean far too much lost time. So, I devised a way for the detector units to transmit a lot of data to the central processing unit through the very water they travel in. Besides. Even micro cables would have had too much drag.”

Bud whistled. “Wow. So, your detector units are like little Geiger counters to pick up radiation signals and then transmit what they find back to the main unit?”

“Actually, no. At least, not just that. To provide the best and most complete information they need to take in continuous samples of the background radioactivity. That’s where the Geiger-like sensor comes in. It’s a derivation of our Mark II DamonScope sensor. But to really get the full spectrum of data, the stuff we need to constantly check is the actual water. Like the chemical ‘smells’ in the water the Aquatomic Tracker senses, these little units will ‘taste’ the water all around them to tell what radiation is clinging to the minerals and

salts around them, whether it is minutely stronger in one direction or another, and by comparing the info from a bunch of them we can home in on the one signature we are trying to find.”

Bud’s eyes crossed and uncrossed. Then, shaking his head as if to clear it, he asked, “And you do this with one of those flat, main units and a couple of whatever the smaller units are?”

“Sorry to toss all of that technical stuff at you. There will actually be twenty-four mini detector subs that will fan out and transmit the data to the main computer and processing lab.”

He outlined how the final version of the submarine / laboratory would be almost eighteen feet in length, about three feet wide and one foot thick, and could operate both independently of the main sub or could be directly controlled when necessary. It, too, would have an onboard laboratory complete with a trace mineral analyzer. Powered by a pair of Swift Solar Batteries, Tom felt certain that the larger unit could operate for almost two weeks before needing to be picked up and recharged.

“Since they will be moving around a lot more, the small detectors will be both battery powered as well as having a small passive generator that provides some power as they move through the water. They will have to be brought back in every four days or so to be recharged.”

He added that the water sampling and testing equipment inside of them would probably need a thorough cleaning at about that interval anyway.

“You’re gonna hate me, Tom,” Bud stated looking slightly ashamed.

Definitely confused, Tom asked, “For what?”

Bud walked over to the long, flat main unit and gave it an affectionate pat on the nose. “Well, I’ve already come up with a nickname for this test thing.” He looked at his friend, expecting that Tom would be wary of what Bud might say.

“No, you go right ahead, Bud. Nickname away. No matter what I do to try to name something, your names are the ones that stick.”

Taking a deep breath, Bud said, “Okay. Here goes. This is a submarine with a built-in lab. So, I’m thinking it should be called ‘The Slab.’”

Tom stared right into his eyes and showed no emotion for a full thirty seconds, then he said, “As I said, I can use your help with my *experiment*.”

“So, what’s today’s test supposed to tell you?” Bud asked, a little disappointed and not certain how Tom felt about his

pronouncement. He came back over to where Tom stood next to the test tank.

“The radium on the tip of this piece of metal is more than thirty years old. It barely puts out readable radiation these days. I’m hoping that a miniature version of my array along with an analysis of all the known characteristics of this water will let my robotic submersibles locate and go straight to this capsule.”

“And I’m supposed to...”

“Take the capsule around and down to the far end and toss it in somewhere. I’ll be in the control room getting the smaller submersible ready so I won’t see where you toss it. I want to be surprised about the actual time it takes to complete the mission. No preconceived notions. Does that make sense?”

“Sure, skipper, I guess so.” Bud turned to face the tank, pointing at the far end. “Anywhere out there, right?”

He suddenly felt himself falling forward. With a splash, Bud hit the water. Sputtering, he turned around and looked up at his friend. Tom was almost doubled over, his head between his knees.

Bud’s anger was replaced with concern. He couldn’t imagine what might have caused him to hit the water and possibly hurt Tom. He quickly swam to the side and pulled himself up and out of the tank.

Tom looked up, his eyes watering and his face red. He stood up and looked at Bud, and the laughter came pouring out.

“Slab? The *Slab*? Oh, Bud. You’re the greatest!”

Bud soon joined in on the laughter. He had been so worried about Tom’s reaction that his recent dunking was quickly forgotten.

Minutes later Bud had walked down to the end of the tank and tossed the capsule into some of the deepest water. It sank without a trace and he returned to where Tom was just bringing out a portable hoist for the rectangular submersible.

“Ready, skipper,” he told Tom. “Say. Where is the other bit? The detector unit?”

Tom pointed into the water.

“Oh, no. I’m not falling for that one again,” Bud said in mock indignity.

“No, Bud. I mean it is already in the water. I’ll behave while you take a look.”

Bud cautiously stepped to the edge and looked down. There, just below the surface, was what appeared to be a very short torpedo wearing a lacy tutu. What was even stranger is that it appeared the

'bottom' edge of the tutu was facing the wrong way.

He looked questioningly at Tom.

“What you’re seeing is the sensor array. That net-like cone holds fifty-six different mini-sensors. They need to face forward like that to work right. The cone lets water pass through with very little resistance.”

Bud scratched his head, then said. “Okay. How quickly do you think that thing will find the radium?”

Tom took a slow, deep breath before answering. “I’ve tried to make sure everything here is built to the sort of scale I expect we’ll be up against in the real world. Out there, we know within maybe a few miles or a hundred all the way out to a thousand miles where the likely location of the lost subs are.”

“So this tank represents—” Bud started.

“Based on the size of the capsule, and assuming that it represents a typical three hundred foot long sub, this tank is a scale two hundred miles. But, to answer your question, I’m anticipating a search and processing time of up to twenty-two hours.”

Bud stared at his friend in disbelief. Tom could see him trying to come up with a good question, but Bud was mentally flailing about.

Coming to Bud’s rescue, Tom added, “There is so little residual radiation and such a large area for the... uh... the *Slab* and the Residual Radiation Detection Amplifying and Locating unit, or RRDAL—that’s the one with all the sensors, and I’m pronouncing that like the Irish name Ardal—that eighteen to twenty hours is probably the bare minimum. It could be as long as three or four days in the real world.”

The flyer gulped. He was so used to Tom’s inventions providing almost instant gratification that this new one was a shock. He told Tom as much.

“Well, we might just luck out on one or two searches. If we can begin the actual search nearer than fifty miles, my bet is that we will have a location solution in less than eight hours.”

Seeing that Tom had the two units ready to go, Bud assisted in lowering the larger one into the water. As they did this, Tom explained that the main processing unit, or Slab, would begin ultra-slow trip toward the other end of the tank, while the RRDAL unit went into a wide zig-zag search pattern slowing every five feet to take a sample of the water, This would start just one foot below the surface and extend out a total of about fifty feet. It would then reverse its course, drop down an additional three feet and come back toward the main unit.

Bud asked whether the samples would overlap, one below the other. Tom said that they would be staggered for maximum coverage.

Finishing the explanation, Tom pressed a series of buttons on a remote control he pulled from his shirt pocket.

“So, now we start. I’m going to stay here for the hour it takes to get to the initial turn point in the first sample runs just to make sure the RRDAL reverses course. No need for you to hang around if you’ve got something else to do. This thing will just run on auto the rest of today and through the night, and I’ll check in on it tomorrow morning.”

Bud grinned. “Well... as a matter of fact I did promise this attractive little blond number that I might swing by her house and take her out for a burger. Guess I’ll head out.” Bud turned to leave, then stopped and turned back to Tom. “You *do* remember that the blond has a cute brunette with fascinating deep brown eyes who is expecting the same sort of treatment—don’t you?”

Tom blushed. He actually had been so concerned in getting the test ready and started that he had forgotten that he and Bud were taking Bashalli and Sandy out that evening to the grand opening of the hamburger themed restaurant in Thessaly. All four were anxious to try some of the advertised ‘fifty different and distinctive burgers’ that were to be served.

“Okay. Wait for me at my place. I should be home by six. The three of us will swing by and pick up Bash then drive to Thessaly.”

Giving a little wave and a little shrug, Bud left Tom to tend to the experiment.

The evening got off to a great start when Bashalli rewarded Tom with a kiss for being not just on time, but a full fifteen minutes early!

“It is almost as if you remembered this hours ago and not at the very last moment, Thomas,” she teased him.

The manager/owner of the restaurant came to their table just as the foursome were starting to enjoy their meal.

“As I live and breath,” he exclaimed, clapping Tom on the shoulder and almost knocking the ostrich, blue cheese and bacon burger out of the inventor’s hands. “It’s really you, isn’t it?”

Setting the burger down, Tom wiped his hands on his napkin and shook the offered hand of the older man. “Yes, sir. I’m Tom Swift. Nice place... um... and very good food as well.”

The owner beamed. “Awfully nice of you to say so, my boy. Listen. I’ve got a proposition for you, if you’ll give me a minute or two of your time, Then, I’ll get out of your hair and let you young folks

enjoy your food.” He looked hopefully at Tom.

“What can I do for you, Mister—”

“Rose. Artemus Bernard Rose. Proud owner of Flock of Burgers here in Thessaly and also Herd of Chickens in Oswego. Best selection of chicken dishes on the East Coast! Here’s what I’ve got in mind. I went down to Manhattan a year or so ago and into one of those old-fashioned delis where they name the sandwiches after famous people. I’d like to start that same tradition here and have you choose a burger to bear your fine name.”

Tom smiled. It wasn’t that there was any rule against it, but both he and his father had made it a practice to not lend their names to any products other than those from Swift Enterprises and the Swift Construction Company. He explained this to Mr. Rose who was disappointed.

“It’s a pity. I was going to invite you and your three friends to come back here next weekend to sample the different burgers. All free, you understand. Like tonight. I was going to make this meal free as well. Are you sure you wouldn’t want to bend the rules. After all. I want to do it as an honor to you, not as any endorsement.”

Tom asked if he could have the rest of the mealtime to think it over and the owner readily agreed.

“Thomas. It would be a very nice thing for you to do. After all, he could have just selected one of these delicious burgers and given it your name. I believe that there is no law against that.”

“Besides, skipper. It can’t hurt to get a little free food now and again. Right?”

Sandy knew what was on Tom’s mind, so she spoke up. “Bud, it isn’t that Tom thinks that it is a bad thing for either him or the family business. It is just that he can’t be seen taking favors from anybody. Not even a free burger. Isn’t that right, Tomonomo?”

Tom nodded. “Yeah. And, I don’t want to think the worst, but what would happen if a burger bearing my name gave someone food poisoning? You know how there have been all these salmonella attacks in the past couple of years?”

They discussed the pros and cons while they finished their meal. In the end, Tom relented. He asked the busboy to tell the manager he needed to talk with him. The sixteen-year-old looked startled and even a little scared. Tom calmed him by explaining that it had nothing to do with the busboy or the service; it was merely to answer a previous question put to him by the owner.

The boy scurried off only to return with Mr. Rose less than twenty seconds later. Mr. Rose looked expectant, pensive, nervous and

encouraging all at the same time.

“Mr. Rose? My friends have convinced me that I should be honored that you wish to name one of your burgers after me. There are only two stipulations.”

“Name them, please”

“Okay. Firstly, you can’t give me any free food. I will always pay for anything I eat here. Ditto my three friends. Is that alright?”

The owner nodded, vigorously, and smiled. “And the other?”

“The other thing is that I want your personal assurance, although my father would probably ask for it in writing, that if there is anything bad that happens in this restaurant, and I mean with the food and health issues, that you will remove my name from the menu as quickly as you can. Unless, that is, I talk to you and we agree otherwise. Deal?”

“Oh, yes! It’s a deal. Do you want to come back to try everything before making a decision?”

Tom shook his head. “I am really happy with this ostrich burger, although I wish that it had a few slices of jalapeño pepper on it. Otherwise, I would be honored to have it bear my name.”

If possible, the smile on Mr. Rose’s face got even wider. He grabbed Tom’s hand and gave it a hearty shake, “Oh! You’ve absolutely made my day! And, j-rings it will have from now on.” He shook each of the other three’s hands and then scurried off.

Bud grinned. “You’ve got a new friend, Tom,” he commented.

Sandy reached out and squeezed her brother’s hand. “You’ve done a nice thing, bro,” she told him. Bashalli nodded in agreement.

The foursome finished their drinks and then paid the cashier on their way out. Tom had a sudden thought and returned to their table in time to leave a nice tip for their busboy.

They reached Tom’s car and climbed inside, heading back toward Shopton.

Sandy had just asked Tom to give them all the lowdown on his new detector invention when they heard the unmistakable ‘chop-chop-chop’ noise of an approaching helicopter.

“Flying kinda low, isn’t he?” Bud asked just as the copter buzzed directly over their heads. “Jetz!”

“That idiot is going to have an accident if he doesn’t get some altitude,” Tom told them. The running lights could be seen heading away from them and rising slightly.

“He’s turning, Tom,” Bash exclaimed and they could all see the

lights moving to the left, then straightening and coming back toward them.

“Bud, call the State Police,” Tom urged.

Bud took his cell phone out and dialed 911. As he waited for the call to be answered, the helicopter rushed back over the top of the car, the prop wash causing Tom to swerve from side to side.

While Bud described the issue to the dispatcher, Tom pulled over to the side of the road and took out his own phone. He was about to call Enterprises when the helicopter made a third pass. This time, they could all hear the explosive clatter of a machine gun and watched in horror as the bullets and tracer shells ripped up the asphalt around them.

Tom gunned the engine and tore down the road hoping to make it to an overpass he knew to be about a mile further down the road.

“We’ll hide under the overpass,” he explained, “while we wait for the police. Sandy. Call Enterprises and have them send out the *Sky Queen*. We’ve got to keep that copter away from us!”

The helicopter had turned and was coming toward them. They could see the muzzle flash from two guns. Tom swerved into the oncoming lane to avoid the bullet spray, but they all felt the impact of two or three shells as they hit the hood of the car.

“Is everybody okay?” Tom practically yelled.

They acknowledged that they were still in one piece.

“We’ll never make it to that overpass, skipper,” Bud stated, and they could see why. Smoke and steam were pouring from the hood and the engine began coughing and sputtering. Before it died, Tom slipped it out of gear and let the car continue to glide forward.

As they lost speed, he maneuvered the car to the shoulder. But, as he was stopping the car, the helicopter made another pass, bullets ripping through the trunk and shattering the rear window.

He turned to see what damage might have been done only to see the terror in his sister’s face.

“Bashi’s been hit!”

CHAPTER 13 /

ON THE ENEMY'S TRAIL

TOM'S HEART sank as he saw his girlfriend slumped forward in her seat, unmoving. He couldn't breathe and his eyes suddenly stung with tears.

"Skipper! We've got to get out of here," Bud urged him, shaking Tom by the shoulder.

Tom's mind went into automatic. As Sandy worked to undo Bashalli's seatbelt, he jumped from the car and wrenched the rear door open, gently scooping the limp body of Bashalli from the seat. The four ran toward a small, dry riverbed that disappeared under the highway fifty feet farther on and ducked into a metal culvert.

They took refuge there. Tom set Bashalli's body down and checked her pulse. Her heart was still beating, but he was alarmed to find a great deal of blood that had soaked the back of her head. He pulled out his handkerchief and pressed it to the area he assumed was the worst wounded.

"Get back to 911, Bud. Tell them we have an injury. Sandy," Tom began rattling out orders. "Light a fire under our folks. I want the *Queen* on site in three minutes!"

They heard the helicopter passing once again over them and could feel the impact of the bullets hitting both their car and the roadbed above them.

As they sat, huddle together, in the culvert, Tom cradled Bashalli even closer. He leaned down to her and softly begged her to be okay. He could hear Bud whispering soothing words to Sandy.

As Tom gently rocked Bash's body and continued to hold the makeshift bandage against her head wound, he heard a muffled noise. Leaning back, he heard Bash mutter, "I said, you're asphyxiating me, Thomas. Loosen up, please. I can barely breathe."

Tom pulled back and looked into Bash's eyes. "Are you okay? We thought you'd been hit with one of the bullets."

She gave a weak smile. "Something hit me in the back of the head, but I've either got an armored skull, or it was just some of the glass from the window."

For the first time in several minutes, Tom felt that he could let his breath out. They sat in silence for a moment before Bud spoke. "I don't hear anything out there, Tom. I think the chopper's left."

Tom listened and had to agree. As he was about to say something,

they all detected the unmistakable sounds of the approaching *Sky Queen*. Although generally quiet, she made a distinctive whistling noise as she shot through the air at near-Mach speed.

Tom's pocket radio beeped and turned itself on. "*Queen* to Tom. *Queen* to Tom. You there, skipper?"

Tom pulled the small device out of his pocket. "Yes, Zimby. We're here. Can you spot anything on RADAR? We've been attacked by an armed helicopter that first came at us from the west. I'm pretty sure it last headed back that way."

"I've got lots of commercial traffic out there, Tom. We'll head that direction and see what we can pick up on the smaller side."

"Tell whoever is on the panel to look for heat signatures, too. They'll have a couple of hot gun barrels for the next ten minutes of so."

A minute later the first of three State Police cars pulled up next to Tom's now destroyed car. Bud poked his head up out of the culvert to make sure that it actually was a trooper car and not their attackers.

With Tom and Bud carrying the still weak Bashalli between them, the four friends made their way back up to the road. As they were relating their story, the other two police cars plus an ambulance and county fire truck pulled up. Bashalli was placed on the gurney in the back of the ambulance and Sandy accompanied her to the hospital in Shopton while Tom and Bud worked with the police.

"I'd love to describe it," Tom was explaining, "but we were so busy dodging bullets that the only thing I noticed was that it looked like an old, surplus Huey. And, black. It was painted totally black."

Five minutes later his radio crackled back to life.

"We found the chopper, Tom," Zimby Cox informed him. "Whoever was in it set down in a field about twenty miles from you then set fire to it. Not much left right now. What do you want me to do?"

Tom requested the GPS coordinates and then asked his pilot to come back to pick Bud and him up.

"Roger!"

An investigation of the burnt-out wreckage provided almost no immediate clues, but Harlan Ames promised to leave no stone unturned. The FAA and local agencies had granted Enterprises control of the investigation.

"We'll fine tooth comb it, Tom. If there is anything to be found, we'll find it."

Bashalli had remained at Shopton General for the night and was due to be released the next afternoon. Tom, Bud and Sandy arrived minutes after her parents and brother. All six waited in the lobby for her to be wheeled out.

Although Bashalli sported a wrap-around head bandage, someone had obviously helped her with her hair as it looked washed and styled. It was the first time Tom could remember seeing her without any makeup.

He was impressed. Her dark complexion and almost black eyes shown as beautifully as ever, and her smile was only slightly less bright for the lack of her traditional lip gloss.

Tom held back until her parents had tutted and fussed around her for more than five minutes. Then, as she looked up at him and gave him a big, bright smile, he stepped forward and crouched down next to her.

They held hands, leaning into each other with their heads touching for a full minute before Tom spoke.

“I think I now know how you must feel whenever I get clobbered or crash something. It almost tore me apart to think that you might not be... okay—” his voice, husky with emotion, faltered.

Bashalli squeezed his hand. “I am fine. Even better to know that you are fine as well.” She kissed him on the forehead. “Mother and father will take me home, but can you come spend time with me this evening?”

Tom nodded, gave her a peck on the cheek and was about to stand up when she reached out with her free hand and pulled his head closer to hers. She gave the startled inventor a big kiss on the lips and only stopped when they both heard her father clearing his throat, rather noisily.

As Bashalli went home with nurse Sandy accompanying her, Tom and Bud went back to Enterprises.

Entering the foyer of the office he shared with his father, Tom was stopped by Munford Trent, their secretary. “Harlan Ames wants to speak with you as soon as possible. I take it they found something in that helicopter.”

Tom started into the office, when Trent continued. “I was extremely gladdened to hear that Miss Prandit was only superficially wounded. Sorry to hear that she had *any* injury, but glad that she will be fine. She will have arrived at home to find a very nice arrangement of flowers... from you.”

Tom smiled and thanked the man then opened the door to his

shared office.

Looking up from some paperwork he was reading, Damon Swift greeted his son.

“Glad to have you here, Son. I hear that Bashalli is going to be okay. Did she get to go home?”

Tom briefly filled his father in on her condition. “I guess I am supposed to call Harlan. He is supposed to have some info for me.”

Mr. Swift nodded. “But, before you do that, you need to know that your radioactivity experiment out in the deep tank ran onto a few problems. I went out there and shut everything down this morning. You call Harlan and then I’ll tell you what happened.”

Harlan gave Tom the news that only a few small pieces had escaped destruction by either the explosion or the resulting fire. Tom was about to thank him when the Security man continued. “But, we did get a clue from some of those pieces. Specifically, from a chunk of the airframe that was blown several hundred yards away.”

“What did you find,” Tom asked eagerly. “Any designation or insignia?”

“No. What we did find was the paint.”

“Paint?”

“Yeah. I had the guys in the molecular lab do an analysis. Thought we might be able to match it to a supplier. It certainly isn’t a standard paint, even for surplus Huey’s. Very flat finish with some RADAR absorbing characteristics.”

Tom was anxious for some real information. “So, tell me already, Harlan.”

“It’s a match for the black paint used on those MIG jets that attacked you over the South Pole!”

Tom sank back in his chair, absolutely stunned speechless.

Many months earlier, while he and a team of Enterprises personnel were launching a test version of his Envirozone Revivicator—a helium-filled aircraft designed to clean the air over the Antarctic and to rebuild its ozone layer—the *Sky Queen* had been attacked by six mysterious black MIG aircraft.

They bore no markings and had fired missiles at both the *Sky Queen* as well as the Revivicator. Fortunately a U.S Air Force squadron who had been shadowing Tom had been able to repel the attackers.

Several of the MIGs had been shot down; the rest had flown out over the ocean and exploded on their own. Three bodies had been

recovered, and everyone was surprised to find that each one had been suffering from some sort of terminal illness. Two had been of Arabic origin and at least one was Pacific Rim Asian.

Since then, they had heard little about or from the attackers although a recent, failed kidnapping of Damon Swift appeared to have been perpetrated by the same group.

Tom finally found his voice. “Uh— we never did trace the source of that paint, did we?”

“Hmmm. Well, we did after a fashion. At least, we traced some of the individual ingredients in that paint. Those ingredients come from North Korea. Or, they are identical to ingredients known to originate from a chemical factory near Chongju, a city located on the west coast fairly near to China.”

There was little more to discuss other than conjecture, so Tom thanked Ames and hung up. He told his father what he had just learned.

Damon Swift was thoughtful and concerned as he told his son, “If they’re striking at you this close to home, they must be desperate. I am going to have to insist that extra security measures be taken to safeguard you. And, Bud and Sandy and even Bashalli.”

Tom was about to argue that he could take care of himself when he had a flashback to the terror and gut-wrenching melancholy he felt when he believed that Bashalli had been injured or even killed.

“I guess you’re right, Dad. I’ll call Harlan back in a few minutes. Now, tell me about my detector experiment.”

“Well, one of the night guards was on his rounds just before one a.m. and he passed by the tank. Everything seemed to be okay at that time, but when I arrived at seven I had a call waiting from Security asking me to hurry out there.”

“What was wrong?”

“The little rectangular vessel had evidently crashed into the front of your mini-sub and the two sank to the bottom. I’m afraid that the sensor array was damaged, and the polycarbonate shell you formed for the sub was cracked open and it flooded. I had everything pulled up, drained and delivered to your underground lab.”

Tom was disappointed, but he knew that this was only the first of many tests he would need to perform. He pondered possible solutions as he jogged across the parking lot to the underground hangar—generally home to the *Sky Queen* as well as his lab—and descended the stairs to the main floor.

He could immediately see the external damage. It appeared that one of the sharp corners of the little *Slab* laboratory unit had run

directly into the front of the RRDAL detector puncturing a hole about five inches across and flooding it.

Ten minutes later he also knew just how much internal damage had occurred. Though not a total loss, everything had short-circuited inside. He carefully opened the small side slot on the control board and extracted a memory card.

He hoped, with proper drying, that it might yield some of the stored results.

Tom was disappointed once again when, two hours later, he removed the card from the special desiccant material, brushed off any residue and inserted it into his desktop computer.

“Nothing!” he exclaimed. The card had evidently also short-circuited so badly that it didn’t even show up on his desktop.

Three days later, his detector submersible repaired and sporting a double-thick front section, Tom returned to the large water tank and started his experiment again. This time, the sub/lab was outfitted with a miniature sonar detector and new programming that would keep an RRDAL unit at least fifteen feet away.

He checked on everything before heading home and was happy to see that the main unit had already registered enough information to narrow its search to just the far end of the tank. He headed home for a quick dinner and then returned to Enterprises.

By 10:00—just twelve hours after starting—the detector signaled that it had a definitive location and was hovering near the bottom of the tank.

Tom donned flippers, mask and a small SCUBA tank and jumped into the water. He swam over to the site of the detector and dove down.

Sure enough, he saw the little capsule right below the detector. Picking it up, he pushed off and stroked upward to the surface. He was about the swim for the edge of the tank when he felt something nudge his feet. Looking down he laughed.

The detector submersible had “detected” that the location of the small capsule had changed and was following it.

He reached down and pressed a waterproof switch, sending the unit back to the opposite end of the tank where he met it, and the sub/lab, and hoisted them back onto dry land.

The next morning he reported his success to his father.

“What is your next step, then?” he was asked.

“I’ll build a full-sized Slab—” he paused and then filled Damon Swift in on Bud’s little nickname, “—and, oh, maybe a trio of the

smaller units. I'll try the test again off of Fearing in the actual ocean. Unless you have another suggestions?"

"Oh, definitely not, Son. I'd say that you're taking this one on full steam ahead. If we were funding this ourselves I'd advise caution, but we've got Government backing on this project and they want this to sail along at top speed. They want you to get out there looking for all the loose packages, as they call them, ASAP!"

For Tom and the combined efforts of Hank Sterling and Arv Hanson—Enterprises' chief patter maker and their head model maker—as soon as possible meant just three days. While they fabricated the four submersibles, Tom concentrated on completing the computer programming. His intent for the forthcoming test was to have the three smaller units perform within a 180-degree area of each side of, and below, the larger Slab unit.

He was completing a few final simulation tests in the computer when he was TeleVoc'd by Hank.

Inside his head where nobody else could hear, Hank's voice came through. "We're about an hour away from sealing this up, skipper. How are you doing?"

"Just about ready to send over the final programming. If you'll wait a few minutes and hook it up to the network, I'll give you the head's up when it's all done."

About an hour later, Tom walked into the large workroom next to Hank's office. "Hey, skipper!" Arv called out. "Come to see our little bathing beauties?"

"They really are, aren't they?" Tom complimented the two men.

Sitting on two different assembly tables, the larger Slab unit was more like an extra thick, squared yet sleek surfboard. It featured a high-speed internal impeller system that directed high-pressure water back and out from a pair of directable nozzles in the rear. These, in turn, had thrust reversers that could swing up, sending the water jet back forward to stop motion or to reverse its direction. An array of eight ultra thin mini wings extended above, below and to both sides. Tom knew that these were the reception antennae to pick up the data from the smaller devices.

Because radio was practically unusable underwater, Tom had designed these to broadcast using modulated electrical waves. These could be used successfully and were all but undetectable at a distance greater than five thousand feet.

It was the three smaller units that got Tom's attention. They gave the initial impression of being large shuttlecocks. Backward-facing shuttlecocks, Tom mused. The fine mesh array of detectors extended in a cone in front of the main body. The body was built like a stubby

torpedo with a small pair of counter-rotating propellers to the rear and four thin transmitter antenna extending backwards at 45-degree angles from in front of the drive screws.

In all, they were about seven feet long and just over three feet wide at the most open part of the cone of detectors.

After congratulating Hank and Arv on yet another amazing job, Tom arranged to have all four units taken to the *Sky Queen* the following morning.

That evening, Tom's mother, Anne, asked if there might be room for one additional person to go out to the private island.

"Well, sure, Momsie. Why? And, who?"

"The why is that a certain member of this family has a few friends who work out there and keep haranguing her to come out for a visit every now and again. The who—" she smiled sweetly and left the rest unsaid.

"Got it! Sure. It'll be great to have you along. My test will take about twenty-four hours. Is that going to be okay, or should I arrange to get you back later in the day?"

She decided that staying on Fearing would be just fine and would give her more time to visit.

"Come by Enterprises at nine, then," he told her.

She was ready to go in with Tom at seven the next morning. A small suitcase and a bag of knitting—something she had taken up a few months earlier—were waiting on the breakfast table along with a couple sausage and egg sandwiches when Tom came down from showering and dressing.

"Ready," she sang out grabbing her knitting and pointing at the suitcase for him to bring.

Everything had been loaded the night before so Tom took the controls along with Bud and they were heading for the remote island before eight-fifteen.

Anne busied herself pulling out a particularly difficult section of her current project and rewinding the yarn. She finished her task re-knitting the errant portion about the time Tom called back. "Getting ready to land, Mom. Strap back in, please."

Tom landed and taxied the *Queen* up near the terminal building. Waiting on the tarmac was an open-top jeep containing three women. They waived expectantly and then smiled broadly as Anne opened the lower deck hatch and climbed out of the giant aircraft. From his vantage point in the third-deck cockpit, Tom watched as the obvious friends hugged and laughed, then climbed into the jeep

and drove off.

“Looks like Mom is in good hands. Let’s get things down to the dock and into the water.

With Tom and Bud trailing slowly in his original jetmarine, the larger Slab and the three remote detectors headed out from the main submarine harbor and into the Atlantic Ocean.

“I had some of the guys seed the test area with a larger version of our radium capsule,” Tom told Bud. “With some improvements I made after our tank test, I am fairly sure that the units will take up the trail within about ten hours. We’ll see, though.”

“We’ve got to stop calling the things ‘units’ or ‘detectors,’ Tom. If you’ve accepted Slab for the submarine lab, how about calling the others sniffers?”

“They don’t exactly sniff, Bud. They detect by a robotic version of taste.”

“Okay. They detect their way and bloodhounds detect their way. Kinda ends up with the same results, though. How about just calling them bloodhounds?”

Tom thought a moment. “I’ll accept ‘Hounds’ as the designation. So, we’ve got a Slab and a pack of Hounds. Satisfied?”

Bud grinned. “You know me, skipper. Everything’s got to have a weird name.”

It took just over nine hours for the Slab and Hounds to pick up the trail. Three hours later and all units were in agreement about the location of the target capsule.

While Bud went out to pick it up, Tom surfaced and radioed back their success.

“I need to redirect your call, skipper. Washington big wig needs to talk to you.”

A minute later Tom found himself speaking the Admiral Hopkins. “Hello, sir. We’ve just completed the first test of what I believe is the answer to our problems. All I need to do is complete building the rest of the system, get the SubLinator out from your base and get part of my crew replaced with a few of your people, and we’re ready for action. By the way. Can I have Lt. Commander Jackson? She was a real boon to us in the *Salem* recovery.”

“Well, while that is certainly nice, and I do want to hear more, I have some news you need to hear.”

“What, sir?”

“Tom. I am not certain how to tell you this, but Lt. Commander

Jackson will not be available to join you. Now, or in the future. She left a note in her quarters and disappeared a week ago.”

Tom was stunned, but asked, “What did the note say, sir?”

“I’ll read it to you: Admiral Hopkins. I, Angela Jackson have decided that I am no longer able to perform my duties in the United States Navy. My husband—my ex-husband—was hounded out of the service and forced to disappear. I am going to be with him. Whatever he decides to do, I will be with him. Whatever!”

CHAPTER 14 /

ONE UP... MORE TO COME

TOM DIDN'T know what to say. It was shocking news. He mumbled a few things and then signed off.

Bud swam up in front of the jetmarines clear nose and waived. In his hand was a five-inch clear capsule. He made an 'OK' sign and then disappeared around the side of the little submarine. A minute later Tom saw the indicator light showing that the small airlock in the conning tower was being opened, then closed, and finally pumped of all water.

Bud appeared through the hatch a couple minutes later. "Got it!" he declared enthusiastically. Then, seeing the stricken look on his friend's face, he said, "Jetz! What's wrong, Tom?"

Tom told him about the development with Angie Jackson.

Like Tom, Bud was stunned. While they talked about the turn of events, Tom directed the Slab and Hounds to head back to the Island while he and Bud raced ahead. Tom wasn't certain what he might do but felt that he needed to be back at Enterprises as soon as possible.

They arranged to have the submersibles transported back to Enterprises on a cargo flight the following day before taking off in the *Sky Queen*. Halfway back Tom suddenly remembered his mother.

He placed a radio call and was soon explaining the situation to her.

"I absolutely understand, Tom. It's fine. I'll hop a ride with the jet bringing back your equipment. I hope it is just a misunderstanding. I know you liked her."

By the time they arrived at Enterprises, Harlan Ames had been advised of the situation by the Admiral's staff. He met Tom and Bud as they climbed out of the giant aircraft.

"What with her past association with Bannister, and his disappearance, I'm starting to see that two plus two evidently do come together to make four."

"Meaning?" Bud asked.

"As it turns out, our Mr. Bannister has a pilot's license. A *helicopter* pilot's license. He has a lot to be angry about, even if he brought one hundred percent of it on himself. That note left on your car probably came from him. The attack by the black Huey was probably him."

“But, what about Angie?” Tom asked almost desperate for something positive to cling onto.

“That’s a bigger unknown. She might be thinking she can control him—bring him to his senses, perhaps—and has foolishly decided to do it against all regulations. She might even still have a soft spot for the guy and got convinced that he’s the injured party. She might be willingly assisting him. She could be a victim. We just don’t know.”

Two days later, Doc Simpson dropped by Tom’s office. Sitting on the edge of Tom’s desk he looked at the young man. “Care to share?”

Tom hadn’t been sleeping very well. It showed in his eyes. Blearily, he looked up at the young doctor. “Not much to say, Doc. I’ve evidently got a bad guy out there trying to kill me and what I thought was a friend could be helping him. What’s to tell?”

Doc moved over to sit in the chair opposite Tom’s. “Well. For instance, you might tell a man who has just enough psychology training to be a nuisance to those around him how you really feel. Or, failing to convince you of that tactic, you might take a friend’s concern and sage advice to heart and get away from this. Your choice.”

Sighing several times, Tom struggled to find the words for his feelings. Finally, he began stating a bunch of disassociated words, but ones that Doc Simpson took to be raw feelings.

“Sick. Sad. Angry. Why? So wrong. Lost. Uncertain. Bash hurt! Can’t understand. Want to cry. Got to protect Bash. Why?” The last, a repeat of an earlier word, happened at the same time Tom looked up and deep into the doctor’s eyes.

“I’m not certain why, Tom. Perhaps nobody knows, not even Commander Jackson. From all you just said I can tell that you have a lot of conflict going on inside, but one thing is absolutely evident. You want to do everything you can to protect Bashalli. I’m certain that goes for all of your family and close friends as well. That’s normal. In fact, that’s the way it should be. The only thing that isn’t normal is why this happened.”

“Doc? I’ve been shot at, shot, stabbed, clobbered, tied up, gagged, pistol-whipped, scratched and scraped. It’s all sort of slid back in my mind and been put to rest. But, I just can’t shake this one. Why?”

“You’re probably not going to want to hear this all dismissed as flippantly as it’s going to sound, but this is all part of Tom Swift growing up. You’re going from the ‘nothing can hurt me’ stage of adolescence into the ‘I’ve suddenly discovered my own mortality and that of the ones I love’ stage of life. All the who’s and why’s and what’s that you used to ignore are making themselves painfully heard.”

“I don’t like it, Doc,” Tom stated, flatly.

“You may not, at least not right now, but this is also part of the survival instinct that keeps thirty year olds from skydiving with a bed sheet and killing the human race off.”

Tom had to smile in spite of his current feeling. He well remembered his first jarring experience with physics and gravity when he pulled the top sheet off of his bed, climbed to the roof of the garage and jumped off. His ‘parachute’ totally failed to open and he received his first fractured bone. It was a lesson learned at the expense of great pain for the six weeks it took the small bone in his foot to knit together.

It could have been worse, but he never repeated the experiment to see how bad in might be.

Doc noticed the slight smile on Tom’s lips. “The situation is terrible, I’ll admit, but the bright side is that this pretty much proves how strongly you feel for Bashalli Prandit. Your protective instincts regarding her are all part of real, solid and meaningful love, Tom. Congratulations. Now, for my next trick, I am suggesting that you, and possibly the aforementioned young lady, get, as they say in the movies, ‘the hell out of Dodge’ and find something to occupy your mind with for a few days. If you will remember back a ways when Sandy needed to be taken away from Shopton. It was you who grabbed the reigns and got her out to Seattle.”

Tom remembered. Sandy had been kidnapped, and though she put on a brave face, it was evident to everyone around her that she was deeply affected by the incident. A three-day trip out west had practically cured her.

“Already been to Seattle, Doc.”

“I know. You’ve also already been to the Moon and near Mars and Venus. The destination isn’t as important as the getting away. Go ski the Andes. Swim with sharks in Australia. Commune with a flock of goat herders in Outer Mongolia. Just go do something.”

Tom stood up. “I know what I have to do, Doc. I’ve got a mission for the Government and I’m a few days late in starting out.” He looked at the man now standing opposite him. “Thanks for the talk, Doc. Like it or not, I guess I am growing up. Frankly, it’s kind of a bitch, if you know what I mean?”

“I do, Tom. Believe me. I do.”

Tom made several calls after Doc Simpson left and arranged to get things back on track. The hardest call he needed to make was to Bashalli’s house. Her mother answered the phone. “Oh, it is you, Thomas,” she said on hearing his voice. “I am afraid that Bashi is not here at the current time. She and your sister, Sandra, are what they

called 'hitting the mall.' I assume that they are shopping. They generally are shopping. May I tell her you have called?"

"Actually, ma'am," Tom said, his mouth suddenly feeling dry. He swallowed before continuing. "I need to come speak with you and Bash's father if I may. Could I come over now?"

Tom could hear the woman trying to catch her breath. In a hoarse whisper, she asked, "You are not coming here to ask for her to be married to you... are you?" the last two words almost came out as a squeak.

Emigrants from Pakistan, only Bashalli had been young enough to totally assimilate into American life and customs as she grew through her teen years. Her father and brother were very strong traditionalists and still believe that a suitable Pakistani man might be found for Bashalli. They liked and tolerated Tom, but would have been happier if Tom and Bashalli were not so close. Bash's mother knew her daughter and wanted her to be happy. She knew that Tom made Bashalli happy. She only feared what might occur should Tom ask for her hand.

"Uh... no. Not exactly. I mean," Tom stammered, "I am preparing to go on another ocean expedition and want to see you and ask if I might invite her to come along. With suitable chaperoning," he quickly added.

"Oh. That is alright then." Then, sensing that she might have insulted the young man, Mrs. Prandit added, "It isn't that we would not have you come over if the other thing were your intention, it is just that Bashi's father and brother have been particularly obstinate lately and I would only have wished to caution you to put asking such a question off for a few months. I hope you understand."

When Tom arrived, Mrs. Prandit had a tray sitting on the coffee table in their living room. On it was a pitcher of orange juice—Tom knew this to be a family favorite—along with several types of sweets. Her husband was sitting in his favorite chair and the seat often occupied by Bashalli's brother, Moshan, was empty.

"My son is still at his cafe, The Golden Cat," Mr. Prandit explained. "I have been led to understand by my wife that you wish to ask us for permission to take Bashalli on another of your lengthy trips. Is this correct?"

"Yes, sir. It is. You see—"

"And is this another of your particularly dangerous excursions?"

"Well, not that we plan for it to be, it's just that—"

"And will she be miserable and make our lives even more miserable in your absence if she is not to accompany you?"

Tom gulped. “Uh...”

“Last question. Is your Charles Winkler also to be part of this trip?” Tom knew that both the Prandit’s liked and respected the chef. He had acted as chaperone on several, previous occasions.

“Absolutely, Mr. Prandit. I don’t go on these expeditions without him!”

“Then, the only thing to do is to acquiesce now and to avoid my daughter’s glares, tears, stamping about the house and recriminations. These are often directed at me in large amounts should I refuse. Moshan will be, of course, unhappy, but it is not his decision. You have our permission on one condition. She must be allowed to contact her mother, who will worry so, on a daily basis. Agreed?”

Tom smiled. “Agreed. And, thank you, sir. Ma’am.” He took a glass of orange juice and gulped it down. They sat and talked about the intent of the trip for a little while he sampled Mrs. Prandit’s desserts. He left ten minutes later on cloud nine.

Tom assembled a combined Enterprises and Navy crew at Kings Bay Naval Base three days later. For their part, the Navy had provided twelve men and women with specialties that would be vital to the mission. One was a junior officer and the rest came from the enlisted rates. The SubLinator had received a complete coating inside the bay and on the entire outer hull of tomasite plastic. Not only would this serve to protect the occupants from any radiation leaking from weapons or reactors, it also did the double duty of making the submarine almost invisible to SONAR and would increase her top speed by several knots as it provided an incredibly slippery surface.

The Navy men and women had been briefed personally by Admiral Hopkins. They understood that they were to obey Tom as they would any ship’s captain or even the Admiral himself. “Remember. You may be well trained and some of our best, but many of you are pretty young as it is,” he had told them. “And, Tom Swift is more experienced in submarines than any one of you. He builds the damn things, he repairs the things and he knows his boat. His word is law. My law. Military law!”

To make things ‘legal,’ Tom was given the temporary rank of Commodore. Now, mostly a ceremonial title, it carried one star and gave him the authority of a Rear Admiral over a small group of surface or subsurface vessels should the need arise.

Bashalli and Sandy were quartered in the stateroom originally designed for four junior officers. Tom and Bud—who normally occupied that cabin—would bunk together in the Captain’s cabin. To promote camaraderie, Tom had his team and the Navy people

mingled in three of the crew compartments. The three Navy women shared one and the men berthed ten per compartment in the others with Zimby Cox and Slim Davis taking the remaining officer's cabin.

“We are going to begin by bringing up all of the remains of the *USS Thresher*,” Tom told them before he embarked on the mission. “We’ve previously retrieved the sail, torpedo room and the reactor sections. I want to clean up the rest of the debris before we head out to find the *Scorpion*. The four crewmembers who will be assisting me with the recovery winches need to meet me in the bay control room one hour after we pass the outer buoy. The swimmers who will help in the bay if we run into troubles will meet with Bud Barclay in the aft dive room at that same time. I want all of the wet team to get practice with our special aquasuits and hydrolung units before we get to the first location. Everyone else should maintain normal watches. Thank you. This should be a fun three weeks.”

Though the Enterprises team had experienced the mystery submarine, and the Navy people were well versed in submarine search and destroy tactics, Tom had to impress on them that the SubLinator carried no weaponry other than a locker of eGuns. There had been a chorus of moans, but all understood the Swift philosophy.

“Sir? What if we are actually attacked?” one Chief Petty Officer asked.

“We are coated in a substance called tomasite. It has a unique property in that it does not allow SONAR or RADAR to lock onto it. Between that and the speed this submarine is capable of, we should be able to avoid damage.” This appeared to satisfy the Navy people.

His training session went well. The three men and one woman took turns picking up a few items that had been preloaded into the large collection bin now attached to the front of the bay. In less than ten minutes of practice each had mastered maneuvering the claws on their multiple rail system, and the first of them, Petty Officer Second Class Millie Blair, had begun picking up and setting down even the smallest pieces with a precision that amazed Tom.

When he inquired about any previous experience, she answered, “You know those machines at carnivals and arcades?” She made a claw with her left hand and flexed her fingers open and closed.

Tom laughed and told her he knew *exactly* what she meant.

“I’ve been pretty good at them since I was about seven.”

Meanwhile, Bud and his team spend several hours zooming around in the rear of the water-filled bay. Three hours after they started, everyone was becoming proficient with their systems and responsibilities.

The only non-standard piece of equipment Tom had decided to bring was his small jetmarine. A special bracket held it to the rear bulkhead in the bay and a newly installed boarding tube and hatchway let people board it from the aft end access room. He wanted to have something to use to go after the mystery submarine if it was hanging around.

When they arrived at the site, Tom called a rest period. Some of the Navy people were more use to continuous and immediate action, but Tom took them aside and asked them a simple question. "What's the thought going through your mind after a couple days of constant General Quarters?"

This elicited the hoped-for response. "Tired and wishing that we'd take a break, sir."

"Then, consider this a break. You might look fondly back on it by this time tomorrow."

When they did begin work, Tom decided to send down the forward and aft grippers while leaving the central pair in place. "If we can, we might be able to pull up either one big piece or two smaller ones," he explained.

The first part they came upon was a large section of the hull that one of the Navy men, Seaman Evans, identified as the engineering section. "It's forward of the reactor section you already brought up. Under normal circumstances it has the most heavily shielded bulkhead. We might even find that it is still closed and intact. Uh, sir!"

"For now, stop with the 'sir' stuff. At least, when we're talking informally. My folks generally call me 'skipper.'"

With Tom on one gripper and Petty Officer Blair on the other, the long process of precise positioning began. It was decided to bring this large, and heavy, section up using both of the claws. Tom maneuvered his to the aft part of the hull while Blair moved her forward. In seconds Tom could see the almost bank-vault-like hatch and bulkhead that had separated this section from the more dangerous section behind.

"It's still closed and appears to be solid," he commented.

"I've got a good place to get a grip up here," Petty Officer Blair said. "Good, solid double hull area. What can you grab?"

Tom moved the claw around a little. "I have what looks like a blowout about ten feet forward of that hatch. I can get one of the claws inside and the tighten it up." He did that and five minutes later they agreed that they were ready for the day's first hoist.

An hour later Tom was certain that they had passed the point

where any problem with the grip might be encountered. They had already raised the hull section two thousand feet from the bottom. Another Petty Officer from the winching team was called so that Tom could attend to several 'boat' functions. "Let me know each thousand feet, please," he requested the man whose name was Livingston.

Tom found Bud sitting in the mess hall with Sandy and Bashalli having cocoa. "Bored yet?" Tom asked Bashalli.

"I haven't even seen half of this magnificent submarine, Thomas. I am several days away from any hint of boredom. Mr. Davis and Mr. Cox have allowed us to stand up at the front windows. It is beautiful out there. Besides, Sandy has promised that we might go for a swim in the recovery bay after you finish picking up pieces."

"Have to disappoint you, Bash," Tom said. "You, too, San. Everything in there has been subjected to some amount of radiation over the years. We decontaminated everything after bringing up the reactor, but I don't want you to chance anything. You'd need to be in full aquasuits. Tell you what, though. After we leave here we head east. How about if we pull up near the Canary Islands and you can swim there?"

They happily agreed to the compromise.

The call came out of the bay recovery room that the engineering section was just a few hundred feet below the SubLimator, so Tom headed back forward.

The man who had replaced him relinquished his seat so that Tom could finish the operation. Within the next hour it had been snugged up inside of the recovery bay and lashed to the ceiling with a series of heavy cables on smaller winches.

Satisfied for now, Tom called for an hour break. "When you get back, Mister Livingston and Miss Blair will try for that operations space section. That will just leave a bunch of smaller pieces, and I have a plan for those."

He left the space only to return five hours later as the two Navy people were beginning the lift of the slightly smaller ops section. He sat down at the controls for the center winch. In minutes he had maneuvered the claw over to the large debris container. Using it to reach inside, Tom extracted a very large bundle. It appeared to be netting of some kind.

As quickly as the winches allowed, he dropped his claw and its bundle to the bottom. There, he used the claw to unroll the giant cargo net and nudge it into a full-open position. A quick glance over at Tom's screen showed Blair that the outer edge of the one hundred foot by two hundred foot net was made from heavy steel cable while

the inner area was of some smaller, non-metallic material.

“Durastress,” Tom told her seeing her inquisitive look. “Strong and light weight. Can’t be cut, either.” As the other two continued retrieving their large section of the submarine, Tom set about picking up as many objects as he could find, and placing them in the center of the net.

Two hours later he had as many things as he felt were reachable given the current position of the SubLimator. He didn’t want to disturb the larger lift, so he used the gripper to pick up and fold in all four corners of the net. He then picked the combined corners up and began winching everything back in. A cloud of silt billowed out as it cleared the bottom and some more continued to sift out for the first few minutes. Then, it simply became a large bag of things attached to a giant claw.

Because the larger section was still many thousands of feet below the SubLimator, it was possible for Tom to use the maneuvering propellers on his claw to swing it wide so that it cleared the larger load by thirty yards and swiftly came up. Tom had the entire net stowed in the container before the ops section was half way up.

Eventually the larger section was lashed into its position and the giant doors of the recover bay were closed.

Tom was quite happy that the mystery submarine hadn’t shown up, or if it had, that it remained too far away for anyone to detect.

Before setting course out into the deeper Atlantic, Tom radioed back to Enterprises. His cryptic message was fully understood, and sent on to the Navy:

One up... More to come. Heading for number two.

CHAPTER 15 /

CONFRONTATION

FIVE DAYS later the SubLimator arrived at the location of what was believed to be the *Scorpion*. Tom assembled the entire crew as one watch section was getting off and the other coming on.

“I’ll make this brief. You have to admit that this hasn’t been a very strenuous mission so far. We ran into practically no problems getting up as much of the *Thresher* as possible. I want to commend our Navy members. You’ve all mastered our equipment with minimal training. Well done. And, I have to add that the Enterprises members have mastered your equipment with only slightly more time and training.”

“What equipment is that?” a Chief Petty Officer and nuclear specialist asked.

Tom realized that none of the Navy team knew about the origin of the SubLimator, nee *The Demeter*. He thought fast. He couldn’t tell them anything they weren’t supposed to know.

“The new SONAR equipment, the computer systems and things like that. Your folks were kind enough to help outfit us, Chief.”

Tom saw the man nod and knew that he was satisfied with the answer.

“It’s been a lot of fun. And, the food’s really great!” came a comment from a young woman Tom knew was part of Bud’s diving team.

Several other Navy people echoed the sentiments with one commenting, “It’s *better* than Navy food, and the Navy’s got the best in the services!”

“Wahl, I want ta thank ya fer that kind comment,” came the deep voice of Chow from his kitchen at the far side of the mess hall space they were all meeting in. “I got me a feelin’ that you’ll find an extra large slice o’ blueberry pie with yer dinner tonight.”

“Anyway,” Tom continued once their laughter died down, “I want to let you know that I’ve promised Miss Swift and Miss Prandit, our guests, that we would put into the Canaries for a swim party. It goes without saying that it is a boat-wide party. We’ll anchor off of the Santa Cruz de Tenerife port at about 0900 tomorrow morning and use the jetmarine to ferry the crew in. If you don’t mind a bit of crowding, we can get twelve or so in each trip.”

The Enterprises half of the crew knew that this wasn’t a strange

thing for their Captain to do. The Navy people were very surprised. Pleased at the prospect, but surprised.

Shortly after daybreak the SubLinator broke surface and slowly headed for an offshore anchorage area. Tom radioed ahead to the Harbor Master both asking for permission for a 24-hour anchor position as well as providing pertinent information regarding his vessel.

“Do you have our anchor placement map, Señor?” inquired the man on the other end of the radio. Tom told him that he did. “Good. Then will you be kind enough to drop your anchor at reference point Alpha-seven, por favor?”

“I have that right here. We should be dropping anchor at 0840 GMT, sir. Are there restrictions on docking at the harbor?”

The man told Tom that craft under thirty meters were allowed to dock in any available slip next to the quay wall. Those thirty to fifty meters needed to obtain permission from the Dock Master. He was about to give Tom the radio frequency for that individual when Tom informed him that the vessel that would put into port was just twenty meters.

“We’ll find a slip, sir. Gracias!” Tom said before signing off.

The first group was standing ready fifteen minutes after the fore and aft anchors had been let out. Bud did a silent ‘eenie-meenie-minie-mo,’ then pointed at one of the two groups and made a ‘follow me’ motion with his arm and thirteen men followed him through the hatch and down into the jetmarine.

Forty-five minutes later he returned.

“Beautiful harbor, skipper,” he told Tom as Sandy, Bashalli and the remaining crew were boarding and trying to find places to perch or stand. “Who’s standing guard?”

“Actually, I thought I’d take the first watch, Bud. You keep an eye on the girls and then come relieve me in about five hours. Okay?”

“Not unless I want a sobbing former Pakistani girl on my hands. No. I talked it over with Sandy and she agrees that you need to come in and I’ll take the first watch. All I had to do was promise her an eighteen hour day of shopping, movies, dining and dancing once we get home.”

“Well... I suppose,” Tom said warily. “It will be nice to walk along the ocean with Bash. Will you be okay?”

“Sure—”

“Hold yer hosses, youngin’s,” Chows voice boomed from behind Tom. “Neither o’ you two is gonna stick inside this old tube. Ya hear?”

Chow's got some serious cookin' ta do so I'll stay and keep watch. Just tell me how ta go about callin' if somethin' comes up."

"Say. I wondered why everyone fit so well in the first group," Bud said giving the somewhat rotund cook a smile."

"Git outa here, Tom and take ole Buddy Boy with ya!"

Tom took Chow up to the control room and showed him how to use the private frequency to call Tom's shirt pocket radio. He also showed the man how to operate the main radio—now set on the Harbor Master's frequency—in case something serious was happening.

"You might want to set a timer, old timer, and come up here for a look around about every half hour. See if there's anything on this SONAR display that is in red—that means a submarine contact—and flip on the aqualamps so you can see out the view ports up front."

Chow took everything in and then shooed the boys out. They ran down the passageway and climbed in with the waiting second group.

"Next stop, Tenerife!" Bud sang out as he detached from the docking point and the little jetmarine dropped from the recovery bay.

Tom had outfitted each crewmember with a new version of his TeleVoc device. These were worn around the neck using a close-fitting chain. A simple tap on the small pendant activated it. Using his, he broadcast out to everyone, "Tom Swift here, gang. I want you all to have fun, but be careful. Our Navy contingent can tell you about keeping mum. Just be certain that you don't get overheard discussing either the Sub or the mission. In fact, just have fun and don't think about anything else. I'll give you all another call when we're an hour away from wanting to take the first group back out."

He looked at Bashalli to see her reaction. She had never before worn or used a TeleVoc. A small smile of wonder crossed her face as she perfectly heard Tom's 'voice' even though he wasn't actually speaking.

"Oh, and by the way. If anyone gets into any situation that is... well, if you get into a situation, call me immediately. Captain out!"

The foursome found a nearby beach and spent several hours walking, splashing and having fun. Sandy suggested that lunch might be in order, so they left the beach area and headed into a part of Tenerife that seemed geared toward tourists. When Tom asked a local where he liked to eat, he pointed down the coast and told them that the non-tourista area began about five city blocks down. "The food is better and the prices are meant for locals, Señor. Muy bueno. Everything."

As the group wandered that direction Tom spotted a disheveled man who seemed to be following them from across the street. When he quietly pointed the man out to Bud, the flyer nodded. “Yeah. I spotted him as well. He was just off the beach when we were having fun back there. Do you think he’s dangerous?”

“One way to find out,” Tom stated and made an arm motion to the man. “You. Come over here and stop following us!” he barked out.

The man visibly winced almost as though hit. But, he shrugged and came across the street. As he crossed, Tom asked Bud to get the ladies into the nearest store.

Touching his forefinger to his forehead and giving a slight bow, the man said, “Ola, Señor Tom Swift. I hope that you and your companions are having a pleasant day here in Tenerife.”

“How did you know my name?” Tom demanded in a tone that caused the man to flinch again.

Recovering, he replied, “Ah, but everyone in the world knows the face of the most famous young inventor. “Você vê? Do you see?”

Wary, Tom tried to outstare the man. When this failed to elicit any more, he asked, “Why are you following us?”

“Ah, you have come to the ponto... to the point of the matter. You see, I am a humble man of no dinheiro... no money. It has been a wish of mine to see new and exciting things. Things that do not cost dinheiro. Você vê? And so, I saw you and the other Señor and the two delightful señoritas and thought, Armando, this is an opportunity for aventura. For adventure as you would say. So, I have taken some courage and have followed you en próximo.”

“Again, I ask you what you want.”

“A simple thing, truly. I wish to speak about and perhaps visit your amazing, gigante submarnio. Você vê?”

Tom went white. How could this man know about the SubLinator? Who was he? A spy? Someone dangerous? He grabbed the man by his stained collar and pulled him into the nearest doorway.

“Por favor, senór, Swift. You are choking me,” the man gasped as Tom tightened his grip.

“Then tell me who you are?”

“Okay.” The man’s Portuguese accent immediately dropped and was replaced with a slightly southern accent. “Loosen up a bit, please and let’s get inside where nobody is gonna overhear.”

Once inside the store where Bud had taken the girls, the man said, “My name is David Underwood. CIA. I don’t carry my ID for

obvious reasons, but I am one of the local operatives. Normally I'm on the lookout for any suspicious U.S. citizens who might be trying to hide from domestic law enforcement. But, I got word from the Navy that you were heading here."

He clamped his mouth shut as someone entered the store. Very quietly, he whispered, "Pretend to be throwing me out. I need to get out of here, but I need to tell you something. Your little submarine in an hour."

Tom gave a slight nod and then made a show of pushing the man out of the store, backwards, telling him, "You stay away from us. Next time you try to put your hand in my pocket, I'll tear it off!" Seconds later, the possible agent had scurried off and disappeared into a crowd.

As the foursome left the store and walked down the street Tom related the strange conversation. "I don't want to endanger you three so I'll grab my food to go once we find a café and go back to the jetmarine. And," he said seeing the worry on Sandy and Bashalli's faces, "I'll keep in contact with the three of you by TeleVoc. Okay?"

Bashalli still looked worried, but she nodded. Sandy squinted and looked closely at her older brother. Finally, she relaxed and said, "You should take Bud with you."

"Sandy. I am torn about all this. You're right. I should go with Tom, but I can't leave you two alone. If not for safety reasons, it is because I don't think you will have enough money to pay off your credit cards if you hit the shopping trail unescorted."

"Droll, Budworth. Very droll," Sandy told him giving him a little punch in the shoulder.

They found a small café specializing in both Portuguese and Spanish foods with several combinations offering both versions of several popular dishes. Tom explained to the waitress that he was required elsewhere and asked that his—a grilled fish wrapped in what appeared to be a large, thin noodle with crisp vegetables and a port wine sauce—be prepared to take away.

As he walked quickly back toward the jetmarine, he was trying to decide whether to make a call to Enterprises and have Harlan Ames check into his story. He arrived at the boat slips before he came to a conclusion, so he walked down the floating dock and arrived at the jetmarine at the same time he finished licking the last of the sticky sauce from his fingers.

Next to the jetmarine and at the end of the part of the dock running out from the main walkway, his back facing Tom, sat the mystery man. Tom walked up to within a few feet of him.

"Thank you for coming, Tom," the man said in his southern

drawl. “Before you get too close, I need to have you do two things. First, call your Harlan Ames and ask him to check on me if you haven’t already done so. You need to be certain who you’re dealing with before I ask for my second thing.”

Tom stepped back a few yards and took out his pencil radio. Setting it for a special frequency, he activated it. A series of quiet beeps told him that he was now in communication with the main radio onboard the SubLinator. Two adjustments later and the voice of the radioman at the Outpost in Space answered.

“I need a direct connection to Harlan Ames at Enterprises, please,” Tom requested. Thirty seconds later there was a click and Harlan’s voice could be heard. “Ames here.”

“I need a quick favor, Harlan. Check with the CIA on an agent named David Underwood. Please do it quickly.”

“I can do it faster than quickly, skipper. I know the man. What about him?”

Tom asked for a description. The possible agent stood up, facing Tom.

“Well, he’s about six foot one, dark hair, very dark hazel eyes, a delicate Virginia accent and he has a tattoo of a mermaid on his right upper arm.”

Tom looked as the man took off his sunglasses and then pulled up his sleeve. Tom could see the shocking, anatomically correct mermaid. He stepped nearer and looked into the man’s eyes. Dark hazel green.

“Raising the radio back to his mouth, Tom asked, “Do you know where he is?”

“Last I heard he was in Portugal or... no. Wait. It was the Canary Islands I think. Hey. *You’re* there. Why did you want to know about him?”

Tom handed the radio to Agent Underwood and pointed at the ‘send’ button. “Hey there, cousin,” Underwood drawled adding a lot of additional accent to his voice.

“David, you miserable son— uh, is Tom listening?”

“Yep.”

“Well then, you miserable so-and-so. Got time to talk?”

“Not right now. I need to tell your Tom a few things I’ve picked up, but my disguise is a bit hard to take. You *are* giving me a reference, right?”

“Did you show Tom the tattoo?”

“He blushed.”

“Reference given. Have Tom let me know what this is about when he can.”

Handing back the radio pencil, Underwood stepped up close to Tom. “I’ve been keeping an eye out because the agency said that you would be coming near here in some super sub to try to haul up the old *Scorpion*. I wanted to warn you that you’re not the only one with a submarine around here. There is a really strange and I think very old sub that has been spotted off shore. Seems to be either a really stylized diesel boat or some old nuke type, but not U.S., British, Canadian, French or German. Oh, and it is completely black. Not dark military gray. Black!”

Tom told him about the mystery sub and about how it is not supposed to be in existence. Then, he asked what the man’s second favor was.

“Take me out of here with you. The thing about not having my ID on me? Actually, my little place was broken into yesterday and my ID, my gun and several photographs I had a fisherman take of that sub disappeared. I believe my life is in danger. Lock me in your brig for security if you feel the need, but please get me out of here if you can.”

Tom agreed to do that. He made a TeleVoc call out to all of his crew explaining that he needed to go out to their vessel and would be back in about ninety minutes. He counted the responses and came up with the complete crew number. As he and Agent Underwood were just climbing down the hatch, Tom heard a little shout. It was Bud and the girls jogging down the dock’s walkway. “Going our way?” Bud called out.

On the way back to the sub, Tom made the introductions and explained the agent’s predicament. “We’ll politely ask him to let us lock him in a stateroom until the crew all comes back. Bud, you can look in on him periodically and the ladies can bring him something to eat... after you shower,” he said looking at the dirty agent. “Oh, and don’t you dare show any of them that tattoo!”

When they docked, Chow met them. He was almost beside himself. “Quick! Ya got to git on the radio. Folks in Washington are tryin’ to git ya’, Tom!”

Leaving the agent to Bud and the girls, Tom ran forward.

“Tom. Admiral Hopkins. I need you to call off the second search for now. Please bring back all of the parts you’ve collected and get them to the base. Sorry for this, but we’ve run into a funding SNAFU. Ex-Commander Bannister’s uncle is at it again and convinced enough Congresspersons that all this must be a waste of money. He

wants your head and mine on the carpet. We need you here to help explain what it is you can do. Okay?

All Tom could do was agree. He then placed another TeleVoc all and regretfully had to ask everyone to make their way to the dock.

Bud brought two groups back over the next two hours, and they hauled up anchor and set sail for the U.S.

Five days later Tom found himself sitting in a non-public meeting with eleven members of Congress. With Admiral Hopkins on one side and the Secretary of Defense on the other, he explained his current ‘Slab and Hounds’ technology and what it could do. He concluded his address by saying, “If anyone wanted to today, they could drop a container over the side of any freighter nearing the coast. That container could hold a nuclear device—bomb, torpedo or even missile—that could be launched and detonated practically before anyone knew about it. My technology can locate such a weapon, most likely within ten to twenty hours or so. Recovering these nuclear reactors and weapons is an important step in perfecting the system. It can be operational all along both coasts in a few months. If you pull funding, you need to be certain what you are willing to live with. Or, die from.”

His words left the politicians speechless. Finally, Senator Bannister lightly banged his gavel. “Uh...” he began but stopped to clear his throat and take a drink of water, “it seems that I have been, well, hasty in concluding that the money previously allocated by this committee might be simply going into the pocket of the Swift organization. I am coming to the belief that this was an incorrect assumption. And so, I ask that my fellow members ignore most of what I have blathered on about this past several weeks and allow me to close this inquiry committee without taking any action other than to agree to a continuance of funding.”

It was passed unanimously.

As they left the meeting, the Secretary of Defense asked Tom, “Were you serious about both the threat—something I agree with—and your possible detection system?”

“Absolutely, sir.”

“How long have you been working on that concept?”

“Since about fifteen minutes ago, sir,” Tom answered with a straight face. “Right as I said it.”

Before heading back out, Tom asked that one of three large storage rooms that seemed to be unnecessary be converted into addition crew quarters, including a pair of small, visitor rooms in case it became necessary to host a VIP or two.

While this two week operation went on at Fearing Island, Tom and Bud had very little to do. Bud first made good his promise to take Sandy on a day long date. Not to be put to shame, Tom took Bashalli on as long a date as her work and family commitments allowed.

Two days after that, the boys headed downtown to meet Sandy and Bashalli at Moshan Prandit's café, The Glass Cat. The girls were waiting for them. They lunched at a nearby restaurant specializing in Thai foods. Although good, Tom noticed that practically everything had either peanut butter in it or was sprinkled with chopped peanuts. He asked Bashalli about this.

"It is not common for daily fare to have peanuts," she explained. "That is for banquet or 'royal' foods. I believe that people who own these restaurants outside of Thailand want people to believe that every day soup and rice dishes are regal. You will not find peanut this and peanut that so much in Thailand."

After the meal, Bashalli had to return to work and Sandy had a dentist appointment.

Tom and Bud walked around the corner and through the parking lot at the east side of the downtown park, heading toward Bud's red convertible. Without warning, two figures rose up from behind a small van.

"Lt. Commander Bannister! Lt. Commander Jackson!" Tom exclaimed. "Or, should I say *former* Lt. Commander Bannister?"

Bannister raised his right hand. In it was a nasty-looking large-caliber pistol of some foreign origin. "Can it, little admiral," he growled at Tom. "You stand still as well, Barclay!" he ordered, seeing Bud tensing up.

"Do what he says, Tom, and you might just walk away from here," Angie Jackson told the startled pair.

"Okay. What do you want, Bannister?" Tom asked.

"Oh, that's perfectly simple, junior seaman," Bannister replied nastily. "I want to earn the money I'm being paid to take care of you for good!"

Tom could see Angie Jackson's eyes go wide for a split second and then narrow. *I wonder if she knows what Bannister is really up to*, he asked himself.

"Start by getting back here between these vehicles," the former Navy man ordered. When Tom and Bud moved slightly in the requested direction, but did not come as close as Bannister wanted them to, he used his thumb to flick off the safety of his gun.

"It's best to do what Alex says," Angie said in an angry voice. She

moved forward half a step.

It was just enough to place her face too far ahead of Bannister's for him to see the look she was giving Tom and Bud.

I hope I'm right, Tom thought. She sure looks like she's on our side. If I can just get things timed with Bud—

“Get back behind me!” ordered Bannister elbowing Angie in the shoulder. And, you two get back here right now! No funny stuff!”

As Tom and Bud moved slowly toward the indicated spot between the van and a large sports truck, Tom asked, “What's this really about, Bannister? Surely you can't believe that you'll get away with this?”

“I'm being paid good money by some very angry people who want you dead, Swift,” he growled. “I don't have the particulars, but it seems that you like to get in their way.”

It suddenly hit Tom. It must be the mysterious enemy that he first encountered at the South Pole when he was launching his OzoNuts—the nickname Bud had given the EnvirOzone Revivicators—months earlier. There had been a few other run-ins since, but Tom really didn't know who might be responsible. His enemy—evidently Bannister's employers—were a mystery.

“I thought we had you with the helicopter,” he bragged. “Lonely, dark road and mysterious explosion. It should have worked! How did you get out of that car?”

Tom just smiled but said nothing, which seemed to infuriate Bannister. He raised the gun, pointing it directly at Tom's face.

“Babe,” coed Angie Jackson trying to defuse the situation, “you can't kill them here. Too much chance to be heard. And seen. Listen,” she turned toward the captives, “just play nice and get into the van and we'll go someplace.” Even she appeared to realize that she was asking Tom and Bud to go like lambs to the slaughter, and that it was a crazy thing to do. She gave Tom an imploring look tinged with a request for forgiveness. Or, was it something more?

Bannister let out a barking laugh. “Nice try, Angie. Too bad that there will be three corpses once I'm through.”

She stepped forward again, placing herself in between Bannister and the teens. Spinning to face him, she demanded, “What are you saying, Alex?”

“You know damned well what,” Bannister told her with a sneer. “I've never believed for one second that you've left your precious Navy and gone all criminal to be with me. You made it damn clear when we split how much you detest me. I'm on to you, I'm sick of seeing your smug face, and you're going to pay, just like these two.”

While they were talking, Tom risked a quick glance at Bud. Their eyes met and Bud gave an imperceptible nod. Tom knew that Bud was ready for action and was just waiting for the word.

Bannister pushed Angie Jackson to one side and raised the gun.

“Now!” Tom shouted. Bud sprang forward aiming to tackle Bannister. Even before he left his feet, both Bud and Tom knew that he would be too late. Adrenaline was pumping through their systems and things began to go into slow motion. Tom could see Bannister’s finger begin to tighten on the trigger.

The gun went off with an ear-splitting explosion.

Just as it fired, Angie’s body flashed in from the side. As the high-caliber slug slammed into her chest she was flung backwards. Bud sailed just over her shoulder and into the neck and face of Bannister.

They went down in a heavy, tangled heap with Bud sending a sharp elbow into the other man’s face, smashing his nose. He followed that up with a second jab into Bannister’s neck. Bud rose, leaving the choking man lying on the ground. He kicked the gun to one side and turned to see if Tom was all right.

Tom squatted over the body of Angie Jackson. She let out a small gasp and tried to smile at him. Blood was beginning to appear under her left shoulder. It spread out. “Guess I won’t get the chance to try to get you away from your girlfriend for a hot date, Tom,” she told him, her eyes closing.

CHAPTER 16 /

SCORPION, WITH NO STING

TOM WHIPPED out his handkerchief and pressed in into the wound in her chest. There was a lot of blood, but the bullet hit her too high to damage the heart.

“Hang on, Angie. I can’t promise you a date, but I’d be really happy if you wouldn’t die just yet. I’d like your help with retrieving all the submarines out there.”

Her eyes fluttered but she said nothing.

Bud pulled out his cell phone and dialed 9-1-1. The dispatcher told him that police and an ambulance had been sent out a minute earlier when someone in the park spotted what they thought might be a kidnapping.

A few seconds later they could hear sirens.

Two Shopton PD cars screeched to a halt a minute later. As the officers took command of Bannister and his weapon, the ambulance pulled up.

Five minutes later, Angie Jackson was strapped onto the gurney and was being loaded into the back. Two liters of saline had been attached to her and heavy compression bandages were stemming the blood flow.

Tom could see Angie’s right hand rise and give a weak waive as the doors closed and the ambulance raced off.

After giving their statements to the officer in charge, the boys excused themselves and headed for Shopton General. On the way there Tom made three phone calls. The first was to Harlan Ames. He told the security man about the incident and the possible connection to their old enemy.

Ames promised to get with the local FBI office and also notify the CIA and State Department about possible foreign involvement.

The second call was to his father. After giving a quick run down of what happened, he concluded with, “Bud and I are fine, Dad. We’re heading to the hospital to see if Lieutenant Commander Jackson is going to pull through. Let mom and Sandy know, just in case this hits the news. I’m going to call Bash right now.”

Tom started his conversation with his girlfriend by telling her that he was okay. On hearing her sharp intake of breath, he knew that his opening statement had only served to panic her, not reassure her. He explained what he called a simple kidnapping attempt, and how the

Lt. Commander had thrown herself in between the gun and him and Bud.

“Either she is very dedicated to the Navy, Thomas,” she told him, soberly, “or she likes you very much. That is a move that only great sense of duty or love lets you do.”

“Actually, I think she has a little crush on me, Bash, but don’t worry. Tom Swift is a one-woman guy... and that woman spells her name B-a-s-h-a-l-l-i.”

The car pulled into a parking space at the hospital just as Tom was finishing his conversation.

They raced inside and up to the Information Desk. His initial inquiry was answered with a tight smile and “I’m sorry, but patient privacy laws prevent me from giving out any information to anyone not a direct relative!”

Tom didn’t argue even though Bud was willing to try. He took out his cell phone and called a private number. “Hi, Doc. Tom.’ He explained about the shooting and asked if Enterprises’ medico could help him find out how she was.

“Give me two minutes, skipper. Just stand by.”

A little over two minutes later and the phone at the Information Desk rang. The woman picked it up. Twenty seconds later she hung up and beckoned Tom and Bud to come over.

“It appears that I was incorrect, Mr. Swift. The hospital Administrator has just informed me that I should get you two escorted up to the third floor immediately. Your... friend... is being prepped for surgery and the doctor will be able to tell you more as he scrubs.”

The surgeon had been notified to expect them and was standing just outside of the scrub room, waiting. He gave them a brief description of the damage he was facing and asked them to not inquire about the prognosis. “I don’t want to say anything until I open her chest up. You can stand by in the family waiting suite. I’ll try to get word out to you in about an hour.”

When a young, black nurse came into the suite just thirty-five minutes later, Tom was prepared to hear the worst.

“Your lady friend is a lucky woman. That was one mondo bullet that got fired into her. Luckily it didn’t flatten out much and ricocheted off of one rib and up into her shoulder. If it had gone downward, we’d be having a totally different conversation. The doctor says to tell you she will come through this just fine. Really, really sore, but no lasting damage as far as he can tell.”

While they waited for Angie to come out of surgery and into

recovery, Tom called Harlan again.

“Well, skipper,” Ames told him. “We’ve got a pair of problems. Bannister isn’t talking, and he was using a Fashalnikov fifty caliber. I’ll assume you’re not up on weapons, so I’ll tell you that the Fashalnikov is a custom, hand-built number. Peotr Fashalnikov was a Russian handgun designer back in the days of the old USSR. He supposedly was sent into exile in Siberia a few years before the end of the Soviet era for his part in an assassination and reportedly died there.”

“So, how did someone get hold of one of his old guns?” Tom inquired.

“Well, that’s the *really bad* thing. This Fashalnikov is brand new. Not old and unused. It is made from a titanium nickel alloy that was only developed about a year ago in China. And, before you ask, there is no mistaking who made this. It bears all his earmarks, even his private hallmark stamp up inside the magazine chamber.”

“I’ll assume that there is no address label,” Tom said a little more flippantly than he intended.

“No. Not that. But there is one other thing. The gun was coated with the same black paint as the helicopter, the Antarctic MIGs and most probably that submarine! If we hadn’t been given some proof of the death of The Black Cobra, I’d be thinking along those lines. It fits, at least.”

The man in question had proven to be a deadly combination of anger, greed and scientific capability. Tom had run afoul of him on several occasions and believed him to have died, at least twice. The first instance had left no remains—no proof. The second occasion had left a body, but without concrete genetic evidence, it had been more an assumption than a fact that the body found was truly that of The Black Cobra.

“How is the Lt. Commander?” Harlan inquired.

“Looks like she is going to make it.”

“That’s good. Admiral Hopkins called to let us know, as they say, the rest of the story. Angela Jackson is a special operative with the Navy. Has been for nine years, ever since she turned twenty-one. She is technically a civilian operative but with military rank. She really was married to Bannister, by the way, and it wasn’t part of any assignment. He’s certain that she was totally taken by surprise when he showed up at the *Salem* and he didn’t have any opportunity to warn her. Anyway, long story short, he wants you to keep this all on the QT and not even discuss it with her.”

Two hours later Bashalli joined Tom and Bud, and an hour after that they were summoned to the room in which Angie Jackson had

been wheeled.

Still groggy from her anesthesia, she smiled, wanly, at them. “Wow. An audience. What’s the occasion?”

“The occasion is that we have been worried sick about you. What with you disappearing and the Bannister thing and then the kidnapping and the gun—”

She reached out and placed a hand on Tom’s arm, stopping him. “All part of the service. I’m sorry that the thing with Alex got out of hand. When I needed to... well... leave the service to follow along with him I never dreamed that he was in as deep as he is. I can’t tell you anything, but I can see in your eyes that you already know a lot of it. Correct?”

Tom nodded. When Bashalli asked, “What is it?” he held his forefinger in front of his lips and said, “Sorry.”

“Has anyone told you what happened to me? I mean, other than being shot at point blank range by Alex Bannister.”

Tom told her about the Fashalnikov gun and how the bullet hadn’t reacted as might have been expected. “That most likely saved your life,” he concluded.

“I knew he had a gun and that it was a big, bad thing, but I never... I mean, how did he ever get a Fashalnikov?”

The surgeon came into the room, interrupting them. “Hello. I’m Dr. Jackson. Probably no relation. I operated on you a couple hours ago. Before I go all through what we did, let me ask, how are you feeling?”

She thought a moment then said, “Have you ever fallen off a roof, into a little red wagon right on your shoulder?” When he admitted he had not, she continued. “I do. Been there. It feels just like that. Everything hurts. Shoulder, elbow, rib cage, collarbone. Even my left earlobe aches.”

He told her about the operation that had removed the bullet and repaired all visible damage except for the large nick in one rib. “We packed that with a new artificial bone putty. It should begin healing right away and only be sore for another month or so. You will need some physical therapy to regain full motion, however.”

As they spoke, Tom motioned Bud and Bashalli toward the door. Angie looked up and smiled again as they quietly left the room.

Following that weekend Tom and Bud flew back down to Fearing Island. They met up with the crew who had reassembled the previous Friday to do some practice drills and to learn all of the ins and outs of the Slab and Hounds.

“Crew ready to embark, sir,” the only Naval officer in the crew, Lt. J.G. Buzz Flanders, reported.

“Let’s get this monster unhooked and submerged then,” Tom replied. Ten minutes later he radioed to the waiting dockworkers. “Cast off all lines. Thanks, guys!”

In another ten, the hull sank beneath the waves off of Fearing and slipped into the deepening water. Tom set course for the position of the *USS Scorpion*. As on previous trips, he assembled the crew in the mess hall once they were out to sea. He was mildly surprised to see a certain face in the crowd, but before he could say anything, the man spoke up.

“Dave Underwood, skipper. From Fearing. Your father asked to have me onboard since I’m somewhat of a submarine buff and may be able to help figure out any one that might come a little too close.” He smiled at Tom. Tom barely recognized agent Underwood in the civilian jumpsuit that had become the de facto uniform onboard. His hair was now short and blond, he was clean-shaven and he no longer had much of a tan. He nodded.

“Nice to have you aboard. Anyway, before we were interrupted what seems to be months ago, we are heading to pick up the *Scorpion*, or, at the very least, her reactor and as many of her torpedoes as we can gather up. Those were almost all non-conventional, meaning they contain small nuclear warheads. We will be on site in just over four days and after our standard rest period we will begin bringing things up. To warn you, she is in more than an extra thousand feet of water than the *Thresher* was, so things will take longer. In fact, we’ll be looking at just one trip down and back up per day.”

The transit was uneventful, just the way Tom wanted things.

When they arrived near the site of the remains, he had the crew stand down for the next ten hours. Going to the recovery control room, he opened two of the giant doors in the bay and operated one of the winches sending its claw downward as quickly as the cables could be reeled out. Nearing the bottom he used the cameras to survey the large debris field. As reports indicated, at least two portions of the submarine were primarily intact although significantly damaged. These were the aft section that housed the single reactor and the forward section holding both SONAR equipment as well as the torpedo room.

As nearly as he could tell, most of the central portion of the submarine had disintegrated, either from the implosion forces, or from impact with the bottom. There was very little that was identifiable except for the crumpled sail lying on its side several dozen yards away.

When Bud made his presence known by giving a little cough, Tom pointed at the pictures coming through. “That doesn’t all look like implosive damage, Bud. See the way the metal is more severely ripped at the bottom of the sail?”

“Are you saying that a bomb might have sunk her?”

“Bomb. Torpedo. Something might have caused all this. It looks like it was blown out from the other side. There have been rumors over the years that the Soviets sank her, possibly by accident. Nobody who knows anything has ever talked about it if that’s true.”

They sat in silence for five minutes before Tom came to a decision. “Let’s take the jetmarine down there and have a good look around, Bud.”

Bud rubbed his palms together. “My kind of action. Let’s go!”

After notifying the duty commander, Slim Davis, the boys climbed into the jetmarine, opened the rear pair of doors by remote control, and silently dropped out of sight. Tom immediately flipped on the aqualamps. At two thousand feet, Tom was unsurprised to see a sperm whale drift slowly past, its giant tail lazily moving and driving it forward. He knew they had been spotted at more than three thousand feet before.

The jetmarine took just twenty minutes to get to the bottom. As they approached, both boys could see the enormity of the debris field, something that the videos had barely let them appreciate. Their first stop was next to the sail. It appeared that a giant hand had reached out and torn it off leaving jagged edges around the bottom. Bud could tell that some of the visible damage—on the torn edge closest to the silty sea floor—was curved inwards, a sign of implosive forces. However, the torn bottom of that side that faced upwards was partly curved out and away from the sail. He shivered realizing that implosions didn’t cause that kind of damage.

They slowly moved the jetmarine around with Tom taking notes on what he felt could and should be recovered over the next two days. Finally he headed the little sub back up.

The following morning Tom sat with Petty Officers Blair and Fitzgerald, the two most qualified to handle the winches. While they operated the aft and central winches, Tom repeated the lower-the-net process that had proven effective off of Cape Cod. Before maneuvering their claws into positions to pick up the reactor section, both assisted Tom in spreading out the giant net near the sail.

He thanked them and then began picking up the first of more than fifty pieces he believed should be in his load. In five minutes he had created enough of a silt cloud that he could no longer see anything. “I’m going to park my claw for a bit and let you two get

that aft section under control. Once you've begun raising it, I'll go back to making a mess of things!" Grinning at them, he got up and left the room.

"I wish that all the skippers of submarines were like him," Blair remarked.

"Young and cute?" teased the slightly older, male.

"No. More like... well... human and real."

Blair called Tom on her TeleVoc an hour later. "Captain? We have the claws locked down and have begun the lift. We're currently about fifty feet above the floor. Whenever you're ready, you have the field."

Tom was about to reply when the boat's P.A. system rang out, "Captain. SONAR. Intruder detected off our starboard side. Fifteen thousand and slowly closing."

Tom didn't waste time replying. He dashed down the passage and into the control room and was looking at the SONAR images when the man seated at the next station said, "We've got a fairly good aqualamp light on it. The picture from camera three is coming through."

Tom was about to say something when he sensed somebody next to him. It was agent Underwood. "May I take a look, please?" he asked. Tom moved to one side. The agent let out a fast puff of breath. "Yep. November class. No doubt. That slightly pinched bow is a holdover from diesel boat days. Better for surface travel. If she were side on, you'd see what looks like a tiny vertical stabilizer and a set of elevators at the stern. Airplane-type elevators that is. That's the aft dive planes and her twin screws. Only the leading edge of the planes move, and they found out part way through building them that the torque of the screws and gearing they planned to use was too much for the relatively short planes. They ended up using smaller screws that severely limits their speed. As for that vertical stabilizer-like part, there's nothing effective about it. They used it to dissipate poisonous gasses that built up in their seventeen ton bank of batteries."

Tom looked curious. "Batteries *and* a nuclear reactor?"

"They weren't very sure that the reactors would work all the time, so they carried enough battery power to remain stationary underwater for about twenty-six hours or to move at about six knots for at least six hours. But, as I said, the batteries let out a lot of sulfuric acid fumes that they needed to vent, sometimes continuously."

Tom activated his TeleVoc. "Bud? Meet me at the jetmarine. We're going sub hunting!" Then, to Underwood, he asked, "Want to come along?"

“Actually, yes, but I’d caution you against going out there. We just don’t know who might be operating that thing. If it were Soviet I’d have no worries; they typically play by the rules these days. If it’s North Korean, then we’ll find ourselves being fired on without warning once they see us. If it’s somebody else...” He shrugged.

“Want to come along?” Tom repeated.

“Try to stop me,” the agent said.

Tom stopped by the recovery control room to let the petty officers know what was happening.” If you feel you’ve got a good grip, speed things up a little. If it gets hairy around here I’ve left word to depart the area. With our tomasite coating any torpedoes will not be able to home in on us, and proximity devices will fail to go off, but a manually aimed shot might hit. If it comes down to it, drop the load and jettison the cables and claws. Okay?”

The pair of petty officers nodded.

Tom met up with Bud and David Underwood at the entrance to the jetmarine’s hatch. “Ready?”

They both responded with, “Ready.”

The Jetmarine dropped out of the bay three minutes later. Tom decided to head the opposite direction and then to swing in a wide arc, hopefully coming up behind the mystery submarine. The maneuver took forty minutes but they found themselves less than five thousand feet directly behind the sub. Lit up with the aqualamps and with the single nose camera zoomed in, they could see the telltale airplane-like tail of the submarine, just forward of her screw. Combined with the two horizontal planes, it gave the appearance of a submarine that had mated with an aircraft.

“Interesting,” David said slowly. “This is extremely interesting. I know which sub that is... or was.”

“And—?” Bud asked anxiously.

“She was designated the K-21. She was in service from the early sixties all the way out to the end of the eighties. “

“But, how do you know that this is the K-21?” Bud asked.

“The K-21 was on arctic patrol for a good portion of her service. She had to poke up through ice on several occasions; it left a permanent bend in the little elevator. See?”

And they could see it. From directly astern the elevator leaned over to the port side by about ten degrees.

“She’s supposed to be rusting away in one of the northern Russian ports. Very, very interesting, indeed,” he muttered. Snapping out of it, he asked, “When can we surface so I can radio this back?”

“As soon as we can make certain they aren’t going to attack. Fairly soon I hope. Otherwise, it may need to wait until we complete the operation and are heading out of the area.”

“Well, the sooner the better. We need to find out why the Russians haven’t told us they sold it. That’s part of one of the many treaties we have regarding nuclear subs and weapons. Besides, if they come clean we might have a better idea who we are dealing with.”

“Do you think they will cooperate?”

“Nyet, Comrade Barclay. Unfortunately, nyet!”

Tom was recording video of the submarine and was ready to move to get a better side view when they all saw a massive amount of bubbles coming out from both sides of the former K-21.

“Ballast being blown, Tom,” Underwood told him. “That’s not normal. They might be in trouble.”

“Then, let’s follow them to the surface and see what might be going on.”

The jetmarine didn’t need compressed air to empty her ballast. Four electrically powered bladders could shrink or balloon up as necessary to expel or draw in water. Tom set them to squeeze out enough water to give them slight positive buoyancy. In three minutes the mystery sub was five hundred feet above them and continuing toward the surface. The jetmarine stopped rising and held steady just two hundred feet below the surface. K-21 was fully surfaced.

Tom released a small dark gray ball. It floated up on a thin tether. As it broke the surface, Tom flipped a switch. Immediately a small screen lit up and the camera in the ball began sending back what was happening. Tom manually swiveled the camera and then set it to lock onto the submarine.

They could see how deeply black she was. Black enough that very little light reflected from her hull.

More than a dozen figures could be seen popping up through a hatch just behind her sail. Many doubled over and seemed to be in pain. Gray steam or vapor began pouring out of the tailpiece. Luckily for the crew, the prevailing winds carried it sternward and away.

“Let’s get up to radio antenna depth and you can send that message, Mr. Underwood. Plus, we’ll attach the video signal so your folks, and mine, can see all this.

Two hours later everything they had discovered had been transmitted to Enterprises and to Washington D.C. The men topside on the K-21 had disappeared back inside, so Tom was about to pull in the camera ball. As he reached for the button to shut it off, Bud

saw something and blocked Tom's hand. "Look!"

They did. As they watched, about twenty people came out on the deck. Soon, three white-wrapped objects were pulled up through a hatch. As Tom, Bud and David looked on, it was evident to them that a burial at sea was taking place.

"Looks like they lost a few to the acid fumes, Tom," David said.

They watched for five minutes more while the second and third bodies were slipped over the side. Then, everyone from the K-21 went back inside and she soon turned away from the area and moved slowly to the south.

The jetmarine headed back to the SubLinator. When they got back to the control room Tom related what they had seen. While things such as death at sea were saddening, there was some good news.

"Blair and Fitzgerald got the reactor section up in record time, skipper," Slim told him. "They've decided to go back for the torpedo room. I hope you don't mind that I gave them permission even though it will put them past the work period you wanted."

Tom shrugged. "If they think they can get that front section up, then who am I to stop them? In fact, I have a load to complete myself." With that he headed aft and into the recovery control room. "I hear you two are breaking all sorts of underwater speed records."

"If you're mad, it was my idea," Blair said. She smiled at Tom hoping it might soften any anger he might feel.

"And, if you think it's a great idea, then we came up with it, together," Fitzgerald told him.

"When your hitches are up and you decide to go back to civilian life, look me up. I like people who take initiative. So, where are you with load two?"

They explained that they had quickly lowered the claws and were already on the bottom.

"I had to use your claw to help lift one end a little," she explained, "to get a good grip on my end. He had the easy end. We've started bringing it up, but I'm thinking that we could use that third claw to stabilize things and let up come up a bit faster. As it is, this lift will take nine hours; it's going that slow."

Tom slipped into the seat next to Blair. He patted her on the arm. "Give me a minute or two to catch up with you and then just tell me where to grab."

Tom was directed to open his claw to its full extent and to grab in the middle of things. Once he did it was obvious that there would be

trouble once they got the section closer. Tom's aft winch and claw would begin to get wrapped up with Blair's central claw.

In an intricate maneuver, while Tom and Fitzgerald held fast, Blair released her claw and then moved it around and next to Tom's. Once she had a good grip, he released his claw, maneuvered it to the aft end of the hull section and got a grip about where she had previously been. With things now properly aligned, the lift continued.

Three proved to be the magic number because they were able to increase speed and get the section on board in less than six hours.

Exhausted and with cramping fingers, they locked things up for the evening and headed to the mess hall.

It was well past the dinner hour, but Chow was waiting for them with three hot plates of food and cold glasses of milk. He knew what it took to keep a crew working long and tiring hours.

The next day Tom took his claw back down. Rather than try to pick up any more small objects or twists of useless metal, he pulled the sail upright and set it in the middle of the net. Silt swirled all around the sail. As he was backing the claw away to begin picking up the corners, the camera revealed something that made his blood run cold.

Sticking out of the previously hidden side of the sail was the unmistakable tail end *of a torpedo*.

CHAPTER 17 /

HEAVY LIFT... HEAVY CRASH

RADIATION KEPT Tom and the crew from investigating the torpedo once the sail was onboard. That would need to wait until everything was off-loaded back home. In the meantime, Tom had been studying charts of the known sunken Soviet submarines and concluded that the next step should be going after a sister boat to the mystery submarine, the K-8.

“She was lost back in 1970,” Tom told the crew. “She had a couple of serious fires on board and even came close to a meltdown of one of her reactors years earlier.”

“Not a very good group of subs, were they,” David Underwood said, giving Tom a sly wink.

“Certainly not built to any truly safe standards, that’s for certain. So, after a war exercise she had two new fires that spread through the air conditioning vents. Smoke everywhere. They got her to the surface and then abandoned ship. Later, her Captain and about fifty crewmen re-boarded her and got her prepped for towing back to Russia. It is believed that built up CO₂ inside killed everybody on board and she sank. Down there, and evidently not precisely where the Russians said they lost her, are two reactors and four nuclear torpedoes.”

“Do we get to release the Hounds on this one?” Bud asked.

“Slab and Hounds. And you get to be the master of the hunt. Actually, some oceanic drift experts believe things might have scattered over more than a thousand square miles by now. We’ll find out once we get up there.”

“Where is there, Captain,” an Enterprises man asked.

“In the broadest sense, the Bay of Biscay off the coast of Spain and France. The reported location when she sank was about two hundred miles north and west of Spain, probably about even with the French city of Nantes. We’ll head for the horn of Spain and then let our little searchbots go to work. Whatever we come across, if it is radioactive, we’ll pick it up. It might be necessary to launch the jetmarine to continue tracking new pieces and locations while we stay and recover each component. We won’t know until we start finding things.”

It required less than a day to move into position two hundred miles off of La Coruna, Spain. This kept them outside of territorial waters although Tom knew that they had tacit permission as an

official search and rescue vessel of the United States to move to within one hundred miles without obtaining permission.

The large Slab and a group of sixteen of the Hounds were stored in a bay next to the jetmarine. Tom had planned for twenty-four, but the Swift Construction Company had run into a production conflict at the last minute. He was certain that sixteen would do for now. The Slab was released first and remained about a hundred yards below the SubLimator while the Hounds were activated and slipped out of their container one-by-one. In ten minutes the swarm of submersibles floated below them, ready to go into action.

Tom started the program running in the Slab. It flashed a green light on his control panel for each of the Hounds now under its control. A countdown appeared on the main screen beginning at sixty. This was the self-check and reference sample taking period. When it reached zero another green light, this one at the very top of the screen and larger than the others flashed.

“Now, we wait,” Tom told the eleven crewmen who were watching him. The screen showed a blip of light for each of the hounds and a box for the Slab. They could all see that the Hounds were moving off in many directions. Ten minutes later the Slab also began moving.

As Tom had anticipated, they were all moving in a northerly direction. He was elated.

That joy was somewhat tempered twenty hours later when he saw that nothing positive had been detected.

“Maybe they just aren’t as sensitive as I thought,” Tom told Bud as they sat in their Tom’s cabin. With the girls no longer onboard, Bud had resumed using his own private living space. “If the smaller and less sensitive test model could find that little clock hand it should be a cinch to find the radiation from an old reactor or leaking torpedo.”

“We’re not talking about hundreds of feet or a couple thousand yards, are we?” Bud suggested. “How far can they have traveled in less than a day?”

“They can make about nine knots. That’s about.... that’s just over two hundred fifteen miles. Unless they’ve hit some current. I never considered that. Pull that green-ended chart out of the shelf and give it to me, please.”

Bud handed over the requested chart. Tom perused it and then slapped his forehead. He activated his TeleVoc pin. “Captain to crew. I have an announcement. Our group of submersibles has been out there going on just over twenty-two hours. The one thing I neglected to account for when telling you we might expect something positive by now is that they are traveling against a three to four knot current.

So, it looks like it will be another full day before we get any indication. On the other hand, if the current happen to pick up contaminated water, we might know sooner. I'll keep you posted."

Tom's thought of receiving assistance from the current came true eleven hours later.

"Sorry to wake you, Captain," a petty officer said as he shook Tom's shoulder. "We've got an indication of two sites where nuclear materials might be. The duty commander wanted me to wake you. Here's a cup of coffee."

Tom sat up and took the cup. Running his hand through his hair he recalled a time when coffee was for adults and even hot cocoa was just for cold wintry days and evenings. Now, caffeine seemed to have become a friend. He looked up and thanked the man. "Tell him I'll be there in two minutes."

He yawned as he strode into the control room. "Bingo?" he asked.

Turning, the Chief standing watch smiled. "Bingo times three it turns out. I've charted the farthest two and had the operator direct the submersibles to the first and central-most one. Do you want to follow?"

"How far out are they now?"

"They've picked up a little speed and are about thirty miles away. We moved twice during the night to stay within range."

Tom thought about it. "Yeah. Let's move in to within ten miles of them and then hold position. I'm going to hit the shower unless you need me. Be back up in fifteen."

The Chief nodded.

When he returned, Tom was wearing a clean jumper—he had pulled on a three-day-worn one earlier—and had shaved. He also had a fresh cup of coffee. This one with milk and sugar, the way he liked it.

Bud stumbled in right behind him. "What's the commotion?"

Tom filled him in on the triple trail that had been detected. Then, getting the attention of the man on the control board, Tom asked, "Do we have any strength information?"

"Nothing concrete but they seem to be nearly the same relative to each other."

"Our torpedoes?" asked David Underwood as he came up beside Tom and Bud.

"Possibly three of them. Or," Tom said not wanting to get hopes up too much until they knew something, "it could be three pieces of

wreckage that were exposed to the same source of radiation. We'll see."

An hour later the strength of their first target had steadied. It was definitely not strong enough to be either of the reactors. Plus, the signature was wrong. Tom was now certain that at least this first target was one of the torpedoes, or some other irradiated item.

He had the SubLinator moved forward again a few hours later. Nine hours after that they moved forward once more. As the giant sub came to a halt, so did the blips indicating the Hounds. They had been approximately five hundred yards away from the Slab, but as the larger craft continued forward, several of the smaller detection units actually reversed their course. In almost no time, all of the smaller Hounds had turned and were backtracking. They were quickly joined by the Slab.

The indicators soon showed that the entire group was now descending in a wide spiral. This, Tom knew, was the definitive search pattern. "Stop them before they reach five thousand feet. In fact, unless they deviate soon, stop them at four thousand and bring them back up to five hundred. We'll take the jetmarine down to see what they've located. Come on, Bud."

A half-hour later Tom and Bud were staring at a twenty-three foot long cylinder with two propellers in the back. Torpedo! To verify things, the Geiger counter that was part of the jetmarine's equipment was clicking merrily away.

"Nearly sixty Roentgens, Tom. Fairly warm but not too hot. Too bad we don't have any claw or we could bring it back."

Tom shook his head.

Bud looked at him questioningly.

"What happens to us if it explodes as we grab it?"

Crestfallen at his own ignorance, Bud said nothing.

"That's why we'll do all these lifts remotely. Don't worry though. I had the same thought and Dad pointed out the problem. You're in good if not a little fuzzy-brained company."

After returning to the sub, Tom turned over the jetmarine to Zimby Cox and two Navy men. They would follow the Slab and Hounds as they headed toward the western target while Tom and the SubLinator would retrieve this first nuclear torpedo.

It had been determined that it was sitting at just thirty-nine hundred feet, and Tom had determined that the best safe distance was a full two thousand, they rose to just under two thousand feet and began dropping one of the claws.

The torpedo was lazily rolling along with the slight current. It was found roughly ten yards from where Tom first spotted it, now much closer to a rock. He eased the claw onto both sides and worked the fine control to close the grippers. Gingerly he moved them closer and closer until one bumped into the side of the torpedo. It reacted by rolling a little to the other side where it encountered the other gripper. Then, the job was done. The torpedo was captured. Checking a sheet of data concerning probably metal fatigue and case strength, Tom set the grip at just over seven pounds per square inch. The camera revealed that the case maintained its shape. He did a short test lift; the torpedo came up off the bottom by three feet.

Tom determined that it hadn't moved in the grip and so he began the slow lift up to the waiting sub. At just twenty feet per minute—all that he felt comfortable with—it would take almost one hundred minutes. He could have asked Blair or Fitzgerald or either of the other two sailors he had trained to take over, but he felt that he needed to go through the entire process first, especially if they ran into any problems.

As it approached the sub, he received word from the jetmarine that the submersibles were hot on the trail of the second target. A half hour later and Tom had the torpedo stowed inside a durastress container. He parked the claw and headed to the control room.

“Got it!” he announced. “Safe and packaged up. How far out is the jetmarine?”

“About sixteen miles. Mr. Cox reported that they are beginning to slow a little but isn't certain if it is due to a current or if they are getting close.”

By the following morning it was evident that a new current had slowed things for a while. The Slab and Hounds were now making almost their top speed as they headed approximately due west. Tom brought the SubLinator to where the jetmarine was waiting and took the small sub back onboard.

There was definite action by two that afternoon. As with the first discovery, the Hounds were the first to react as one-by-one they reversed their course. Once they were joined by the Slab, Tom was certain they had discovered another torpedo. He had the entire group brought back to the recover bay and to their staging area. A good recharge was in order, plus Tom believed it would be prudent and a time saver to carry them back past the first torpedo site before releasing them.

He sat down with Millie Blair as she lowered the claw and identified their target. It was definitely another torpedo, but this one was in poor condition. The entire aft end was twisted. Luckily, the forward area was intact. She carefully picked it up, following Tom's

suggestions carefully.

As it came up from the bottom it slipped and dropped, slowly, the sixteen inches she had managed to raise it.

“I am so sorry, Captain. I thought I had the pressure set right,” she said.

“It wasn’t your fault. Look,” Tom told her, pointing at the newly dented area on one side. “You used the same pressure I did but the case collapsed a little. That loosened the grip and it just fell out. Instead of repeating that, why don’t I drop down the cable net and we’ll just load it in that?”

Relieved, she smiled at him.

An hour later the net with its ‘fish’ was coming up at full speed. “I should have thought to do this the first time,” he told her. “Much faster. It will be our modus operandi from this point on. Pass the word.”

As soon as this torpedo was stowed, the doors were closed and the SubLinator moved to a point a dozen miles to the east of their first find. When the Slab and Hounds were released, another waiting game began. It was rewarded ten minutes later when the submersible group locked onto something and changed to a slightly more northerly course. Things went even better when another new target was identified just before midnight. This one was much stronger and of a different wavelength.

“Could that be the reactor?” Bud asked.

“It most likely is. And, if it is, that means we just have one more torpedoes to find.”

As the day broke above them, the downward spiral search pattern was repeated for the third time. Tom brought the submersibles up and moved the SubLinator over the indicated location of the third torpedo.

Fitzgerald lowered the net to the sea floor thirty-six hundred feet down. This time the camera showed only the front eighty percent of the torpedo. The corroded wreckage of the propulsion system for the torpedo dangled out the aft end. But, they lucked out again as the front portion was in good condition.

Later, once it was stowed away, Underwood reviewed the video and identified it as a Type 53. “They made a lot of these. They are considered to be one of the slowest and least effective torpedoes ever built. They can’t make forty knots; they can’t home in on a target; a lot of them used kerosene and highly corrosive and dangerous hydrogen peroxide and some exploded inside submarines. Plus, they tended to come apart if they had to travel their maximum distance.

Stupid torpedo to hang a nuke off of.”

The search now turned to the more dangerous pair of reactors. They set off after the Slab and Hounds that were now onto a definite target. It took another day but the entire aft section, complete with the two reactors, was located. The ninety-foot section was split down the starboard side letting them peer into the inside and ascertaining that the reactors were in their positions.

Underwood was with them watching the video. “Looks good,” he commented. “The cooling pipes appear to be in good condition. Otherwise, there would be a nasty bunch of radioactive metal all over the place.” He explained that the reactors in the November class of submarines used a hot, liquid metal cooling system.

“I thought these reactors were like ours,” Bud said. “You know... coolant circulates around the hot core and turns into steam that drives an electrical generator.”

“Oh, they have that as well, but they weren’t very good at building reactors that didn’t overheat if somebody sneezed. They needed the additional cooling. That also meant an additional set of pipes, compressors and valves to move seawater into the sub, around the hot cooling pipes, and back out again. Actually, it is believed that if our Navy had a way to check water temperature at the bow back in the early days, we could have followed these from a couple miles back wherever they traveled. Now, of course, infrared sensors could follow one as if it were leaving a bright red streak behind it.”

All three claws were lowered and Tom worked with Petty Officers Blair and Fitzgerald to grapple onto the section. Seven hours into their attempts Tom declared a rest period. “We just can’t seem to grab the right places,” he told them.

“It seems slippery to me,” Millie Blair stated. “Kinda like grabbing a greased pig.”

Tom thought about this and then called David Underwood. After informing him of their plight, Tom asked, “So, did they have something that acts like grease?”

“No, but they did begin coating some of their subs in thin rubber tiles. It cut down on the SONAR signature by absorbing some of the signal. That let them sneak in by an extra couple thousand yards in some cases. They abandoned the practice with newer coatings and when they had to begin replacing the old tiles—” He paused, trying to remember something.

“Replacing the old tiles, what?”

Underwood’s face split into a huge smile. “They found that the rubber they had been using broke down in really cold seawater. Like down here. It got all slippery and then goopy and it slowed them

down.”

“What now, Captain?” Fitzgerald asked. “Send down a scraper and wipe it off?” He chuckled.

Tom didn’t. “Something like that. Let’s get those claws going and see if we can peel the stuff away.”

Without taking the break Tom had intended, the trio resumed their work. Soon, Tom developed the technique of opening the jaws wide and allowing the ends to rest on a part of the hull for a few minutes. The weight drove the pointed ends into the rubber. Then he slowly began closing the claws exerting about three PSI of pressure. The effect was immediate. Huge gooey chunks of deteriorating rubber came away and fell off as he lifted the claw.

In an hour they had three good areas cleaned of the majority of the goo.

“Now we rest,” Tom declared. “An hour to eat, then seven hours of sleep. We’ll bring that section up tomorrow.”

When Tom arrived back in the recovery control room he could see that Millie Blair was not feeling well. Her face was pale and she had a glisten of sweat beading on her forehead.

“Under the weather?” he asked.

“Must be seasick, sir,” she replied trying to smile but failing.

Tom ordered her to return to her cabin and called for the medical aide they had onboard. He reported ten minutes later that Millie Blair was suffering from a one hundred two degree temperature and most probably some sort of flu.

“I’ve put in an IV to replace fluids and given her something to bring the fever down, but I’d feel better if we can get her to a hospital in the next twenty-four hours.”

Tom added up the times ahead. Five or six hour to raise the hull section—and now that they had it practically in their grasp he didn’t want to abandon it unless necessary—plus an hour to close up and get underway, surface and request permission to come into the closest port plus the travel time to get there. All total, he figured about twenty hours. The lift was going to go ahead.

Seaman Evan Evans—known to his coworkers as “E-Square”—was the sailor who replaced Blair. He arrived a few minutes after called, toothbrush still hanging out of his mouth.

“Sorry. I was in the head and had my head in a sink when the call went out.” His words were somewhat garbled.

Tom pointed at the dangling plastic handle. Evans reached up, turned bright red and took it out. He shoved it into his pocket and

sat down.

After a briefing of the status and a description of the process to clear an area if it became necessary, he declared himself ready.

He and Fitzgerald changed positions so that Evans could be on the center claw, Fitzgerald on the aft end, and Tom taking the trickiest part, the torn forward end. As they looked on, Evans brought his gripper into position and moved the ends inward until they just touched the sides of the hull. He set the controls to provide the right pressure and then set the self-adjusting treads. Sitting back for a second, he rubbed his hands together and flexed his fingers.

“You should see E-Squared when he is contemplating three of a kind or a short straight,” Fitzgerald told Tom with a wink. A reply was on the inventor’s lips but Evans beat him to it.

“I have the worst poker face on the planet. Can I try lifting just with my claw? If it’s set right, nothing should slip off if I try to pull it up a few feet. Right?”

Tom made a ‘be my guest’ motion. Evans took a deep breath and placed his hands back on the controls. In seconds it was proven that his grip was not going to slip. He lowered the hull and sat back. “Gentlemen,” he said and then remembered Tom’s command position, “and honored Captain!”

While Fitzgerald was making his final maneuvers, Tom moved into position. When Evans had picked up the massive hull, it had spun a few degrees. Just enough, it turned out, for Tom to spot a slight indentation that would be the perfect place for one side of his claw. The other part he placed just inside of the torn-open hull. It was a good grab and he was happy with it.

Fitzgerald was a few minutes behind as his first attempt failed to get the ends of the claws open wide enough to slip over the narrow part of the hull just in front of the tail planes. On the second try he got them open enough and the soon were clamped around and just under the hull.

They began the lift. It was slow work at first and was only a few hundred feet up when a call came back from the control room.

“Company’s back, skipper,” Slim Davis’ voice sounded out. “Only, it doesn’t look like that other sub. Lighter gray for one thing and a different configuration. It’s at sixteen thousand yards so we’re only getting a hazy video. Mr. Underwood is digging through a book right now. What do you want me to do?”

“We’re continuing with the lift. I’ll be there in two minutes. Can you page Arnie Livingston? He’s our forth for the claws.”

“Sorry, Tom... uh, skipper. He’s in his rack. Pretty ill so I

understand. Like Petty Officer Blair.”

Tom released the intercom key and asked his companions, “Can you continue without me for a few minutes. Just keep an eye on the tension on my line and adjust if necessary?”

The agreed that they could, so Tom raced from the recovery room to the control room.

“Got it!” Underwood shouted just as Tom entered. “It’s a French *Le Triomphant*-class; one of the four they operate. It’s a little different than the others so this must be *Le Terrible*, number four in their little sub fleet.”

To the sonarman, Tom said, “Get on the sonaphone and hail them. Tell them we are on an official U.S. recovery mission. Also, tell them that when we are finished in about five hours that we are going to be heading for the port at Pointe-de-Grave with two ill sailors.”

“What if they only speak French?”

That was something new to consider. “Uh, who do we have who’s fluent in French?”

“Millie Blaire,” David Underwood answered.

“Damn!” Tom said. “Okay, hail them and ask if they *parlez vous Anglaise*. If they do, pass my message. If not, say ‘*une minute*’ and we’ll have to get her out of bed.”

The French submarine answered on the third attempt. “Americaine submarine. You are ordered to leave our waterz at onze. Do not hezitate. Your mizzion iz not authorized. I repeat, leave thiz minute!”

Tom took the microphone. “French submarine *Le Terrible*. This is Tom Swift. I am the Captain of this submarine. We have a piece of international salvage attached. We cannot leave until we either recover it or lower it back to the sea floor. We are operating under United States and international maritime code Beta-Beta-three-seven-one-Alpha. I repeat. Please refer to maritime code Beta-Beta-three-seven-one-Alpha.”

“We have been informed that you may be in violazion of French maritime law. Zurface immediately and prepare to be boarded. If you do not comply we will fire torpedoez. Do you read me?”

“We read you. I repeat that we are on a sanctioned salvage mission. If you will just come over here I can discuss it with you, Captain. Otherwise, I can only surface very slowly.”

“Zurface! Now!”

Tom cut the connection. He called back to the pair raising the hull and asked them to stop. “We’re going to go up and I don’t want to

put too much strain on the cables.”

He then gave the order to carefully blow the main ballast tanks as well as the fore and aft trim tanks. “Take her up at no more than thirty feet per minute and keep her even.”

The French submarine began moving in as the SubLimator began rising. They must have been satisfied because no additional communication was received. *Le Terrible* halted when it came to within six thousand feet of Tom’s craft.

Everyone felt a hard lurch and a jolt as the SubLimator suddenly rose. Tom demanded to know what was happening.

“Captain? It’s Fitzgerald. We just lost our grip on the K-8’s hull. *It’s crashing back to the bottom!*”

CHAPTER 18 /

JE SUIS COUPABLE

THE CAMERAS on the three grippers caught the action. First, the forward claw slipped under the additional strain. As it left the hull, the claw controlled by Evans began slipping. It too, quickly detached leaving only Fitzgerald's claw hanging on. He attempted to compensate, but it was too late. He watched his monitor as the cable parted and shot to the side.

Had this occurred on dry land, the cable might have cut the SubLinator in half. Underwater, it lost momentum within thirty yards, then hung limply down.

The hull, forward end pointing down now, plummeted back into the depths with the claw attached.

Evans had the presence of mind to follow it down with his lower camera and to zoom in. The water kept it from diving quickly, but it hit with enough force to crumple at least a quarter of the forward area.

When Tom reviewed the video he said a silent prayer that it would not have hit hard enough to split open one or both of the reactors.

"What waz zat?" came the call over the Sonaphone.

Tom wearily picked up his mic. "Zat, whoever you are, was the reactor end of the former Soviet submarine K-8. Your high-handed actions caused us to lose control of it. As we speak, untold amounts of radiation might be coming out of it. How could you not just let us finish our salvage? How will you explain to the fishermen of France and Spain that you polluted the waters for all time? Who the hell are you?"

There was silence on the sonaphone for more than five minutes. Finally, a deeper voice with a less noticeable French accent came on. "Is this the U.S.S. Swift? I am le Capitan François Malavisé. Do you read me?"

"Yes, Captain, I read you. This is Tom Swift, Captain of this submarine." Tom's voice indicated both his disgust and his disappointment. "Do you realize what you have done? Did your man tell you what you have done and what may have occurred?"

"Oui. Yes. My second in command has informed me of a mistake on his part. But he tells me that you believe there is some danger from a source nuclear. This can not be so, I assure you."

"This is absolutely so, sir. Please transfer over to my submarine

and I will show you precisely what terrible danger your actions have place us all in!" He cut off the connection. "Let him stew a little," he told the man on the underwater phone circuit. If he calls back, give him information regarding surfacing and that he can transfer over by small boat. I'm going to my cabin to change my shirt. I've soaked the armpits of this one."

When he returned, Zimby Cox, currently the officer of the watch, told him, "We're both going to surface and they will transfer their captain over."

"Once we surface, set up a link to Admiral Hopkins. It will be early in his day, but he needs to hear what happened and to get the big wigs involved."

Fifty-eight minutes later Tom stood facing a man in an over-fancy dress uniform. Captain Malvaisé had a face that most likely sported a permanent sneer. Tom found himself disliking the man even before either spoke. Malvaisé broke the silence.

"Tell me what this is all about. My second in command is a nervous man at the best of times and your announcement that he has supposedly done damage horrible has sent him into a state. So?"

Tom explained the purpose of their mission and quoted maritime law—law that France was a signatory to. He detailed the accident, years earlier, to the K-8 and how the SubLinator had discovered three of the nuclear torpedoes along with the reactor section.

His voice got louder and more strident as he described how they had begun raising the deadly section of the K-8 only to be ordered, figuratively at gunpoint, to head for the surface.

As he detailed each of the potentially deadly occurrences, he was inwardly satisfied to see the sneer on the Frenchman's face be replaced by a look of worry and then almost wide-eyed panic.

"So, you and your submarine's actions may mean that the reactors are down there leaking deadly radiation into the water. Killing everything that it contacts. Destroying your fishing and recreation industry and that of Spain. *That is what you have done!*"

The Frenchman reached out a hand to find some support. He was quite obviously staggered by the implications. He was muttering several things in French.

Tom caught, "Je suis accusé. Je suis coupable. Mon Dieu!" Tears had formed in his eyes as he begged Tom, "What can we do? What can you do? Is it too late? Anything. Tell me what to do."

The inventor began to take pity on the man. So full of pomp and self-assurance on arrival, the French Captain was now a beaten man. He wondered how he would feel if the tables were turned, but

decided that such a situation would not arise.

“We are going to send out our detection submersibles. They can tell us if radiation is now leaking from those reactors. Let’s hope that they withstood a second crash landing on the seabed. They made it through the first. Then, we will go down and lower a camera to check the state of the wreckage. We do know from our last visuals that the forward portion of the reactor section had crumpled during this impact. We just don’t know how badly.”

An hour later they had the first bit of news. It was mostly good. Although the radiation level coming from the reactor section had risen by a few dozen Roentgens, it was still within safe limits. Tom believed this might have been caused by the coolant system from the generators being broken open on impact. This would release any stored coolant that would be fairly radioactive. At least that is what he hoped.

He sent the French Captain back to his own submarine to answer a radio call from the French government. Presumably, U.S. Government, diplomatic and/or military communications had been made and received detailing the enormous blunder and possible repercussions. Tom was glad to not be in that man’s highly polished shoes.

He joined Petty Officer Fitzgerald and Seaman Evans in the recovery room.

“We’ll go down with one of the two remaining grippers first,” Tom instructed. “We still have fore and aft winches. I’ll take the forward claw down. You stand by. We may need to have you pickup the cargo net before joining me. If things are too broken up or unstable I’m thinking that we might ease the reactor section onto the net and pick it up.”

“Can the net hold that much weight, sir.” Evans asked.

“Yes. It is strong enough to hoist half of a sub if necessary. By the way, and I know this goes against military protocol, while we’re in here and nobody is listening, I’d prefer that you called me Tom. I’m getting a little tired of ‘Captain’ and ‘sir.’ okay?”

Fitzgerald gave a little salute, a sly smile and replied, “Aye-aye, Captain, sir!”

The forward gripper arrived near to hull section. As Tom made the approach, the three men could see the additional damage that had occurred. Originally about ninety feet long it had crumpled by about twenty feet. The aft end was slightly bent from the impact forces, but the center part was not much the worse for the experience. The original split down one side had only opened up by a foot or so.

He maneuvered his claw over to the split for a better look inside. They all let out held breaths when they could see that the reactors were still bolted down. And, as Tom had surmised, the only new damage was the obvious tearing way of one of the six-inch pipes that sent the generator coolant into and out of the reactor. They could see the slight blue tinge the leaking fluid added to the water.

Tom moved his claw around the damaged forward area. "I can't see a good place to latch onto anymore," he told his co-controllers. "Let's bring down that net, guys."

Although not a maneuver he had practiced, Seaman Evans took control of the other claw and had the bundle of cargo net picked up from the container and heading down in less than two minutes. When it arrived at the bottom, Tom asked him to deposit it about fifty feet out from the starboard side of the hull.

Together, they unrolled and spread out the net. The only problem came when Evans accidentally snagged one piece of the net and dragged it around for several dozen yards before realizing what was happening. It took just few minutes to straighten that area out and then to finish the job.

One side was within a few feet of the hull, which was good, but Tom decided to spin the net ninety degrees.

"We've got it oriented now so that it is really long in front and in back with just enough to pick up on the sides. If we spin it, the longer area will now wrap around and up with more free play and we still have enough width to support the length of the section.

Eighteen minutes later it had been swung around into the new position. Tom was satisfied. "So, now we need to see if we can lift it enough to move it onto the net, or whether we are going to have to push and tug at it."

While Fitzgerald took over and maneuvered to the stern, Tom set his claw around the middle of the section. Once they both had the claws set, he said, "Begin lift on my mark. Just an inch a minute and only about ten inches total. Okay?"

They both nodded.

"And, three... two... one... begin," he said softly as if the quieter he spoke the slower and easier would be the lift.

When they had it raised about two inches, Tom's claw began slipping a little, and the repositioning treads could not keep up with the movement. He called a halt.

"Looks like I'm having problems with that slimy rubber coating again. Give me a few minutes to clear a little more of it away." With the hull section resting once more on the bottom, Tom worked his

claw to scrape and tear away a large section of the slippery coating. It took half an hour, but he was finally able to get a tight grip.

They raised the hull and then moved it over to the waiting net. Tom could see that the crumpled forward section was wiggling a little. It would never have been able to survive a complete lift up to the waiting SubLimiter.

He and Fitzgerald picked up the four corners of the net and raised their grippers just enough to pull up the center of the net. It was a tricky maneuver, but Evans kept a close lookout on their instruments and made a few adjustments as they concentrated on getting the balance right.

“I’ve got an idea,” Tom said to the other two. “Instead of having to come back down for the broken claw, let’s load it in the net and bring it up now.”

It seemed simple, and was. Five minutes later Tom knew they were ready to lift. He gave the order.

They began slowly but it was obvious that the net was holding and that they could increase the lift speed. Three hours later the net with its precious load was just twenty-five feet below the open recovery bay.

Bud volunteered to take a group of his divers out in protective aquasuits to get a separate line on the claw. An hour later he stepped out of the airlock and announced success. The claw was winched up and out of the way. It would need to be repaired at a later time and place.

The final lift was about to start when the intercom came to life. Tom let out a groan even before he heard the entire message. It began, “Skipper? That French sub is hailing us.” At that point he wondered, *Why can’t they wait until we get this onboard?* But, he need not have worried as the message continued, “They are asking for a status report. Once we have the thing up and locked away, they want us to call them. They will have a long-range military helicopter come out and take on our two sick crewmen and get them to a shore-based hospital.”

Tom let out a sigh of relief. “Tell them we will be able to head up in thirty minutes, Zimby.”

A minute later, Cox came back on and asked, “Do we have the ability to refuel a helo, skipper? Everyone is pretty certain that this far out is about a fifty miles too much for them even with a full fuel load.”

“You know what, Zim? We actually do. That big hump behind our sail is full of fun stuff like inflatable rafts, some kind of open-topped six-man submarine, and an unmanned surveillance helicopter. It can

be refueled while in a hover or back on the deck. The Admiral wanted us to take it all along, even if we didn't think it would be used. Guess he was right. Tell them we have about three hundred gallons of JP-5. Hopefully they can use that."

"That's what they asked for, skipper. JP-4 in a pinch, but number five preferred. They are only asking for about sixty gallons. I'll let them know."

They completed raising the net into the bay. Without a way to maneuver it correctly with one missing claw, Tom decided to snug the net up as high as it would go. "It might swing a little but it will hold," he told the other two.

As soon as they finished, he went to the control room where he gave the order to surface. Using the camera on their periscope, Tom took a look around them. In the distance, some three thousand feet away, he saw the French submarine, already on the surface. A flashing light was signaling something. Tom recognized the long and short flashes as Morse code. He pulled his ever-present notepad from his pocket and began writing down the letters:

... N A-B-O-U-T O-N-E H-O-U-R R-E-P-E-A-T A-S-K-E-D T-O M-A-I-N-T-A-I-N R-A-D-I-O S-I-L-E-N-C-E T-R-A-N-S-P-O-R-T T-O A-R-R-I-V-E I-N A-B-O-U-T O-N-E H-O-U-R R-E-P-E-A-T ...

Tom keyed in a response on the periscope. His message was flashed back in the direction of the *Le Terrible*.

U-N-D-E-R-S-T-O-O-D S-T-A-N-D-I-N-G B-Y ...

They acknowledged receipt. Tom asked their radioman to stand watch on the periscope.

"They've been asked to maintain radio silence, so I guess we should, too. I'm going back to sick bay to make sure Blair and Livingston are ready for the transfer."

"Blair is feeling about the same, skipper," the medical aide told him, "but Livingston is getting a little worse."

"Any idea what caused this and are we going to have more crew go down?" Tom inquired.

"A pretty good one. They hit the beach at Tenerife together. Swam together, walked together, shopped together, and even ate together. Once we were back in the States, they admit that they spent a lot of time together and they shared something from a street vendor in D.C. Now they are suffering a bacterial food poisoning. Together." He raised his eyebrows to Tom.

"Ah. Yes. Of course," Tom said, finally letting it sink in. He entered the room and could see how together they were, even in sickness. Their beds were separated by a foot or so and they were

holding onto each other's hand as they lay there, moaning. "Well," he said as they looked over and saw him. "I see that we are... uh... together."

"Please, Captain. Mr. Swift. Please don't tell the Navy," Millie pleaded. "Arnie, that is, Seaman Livingston and I have been sort of together for almost a year. We're going to get married next summer. Even though that means we'll be reassigned to separate commands..." her voice trailed off and tears came to her eyes.

"Don't worry, Millie. You either, Arnie. It never leaves this room. I promise." He filled them in on the upcoming transfer to the French helicopter. "They'll be taking you to a coastal town and putting you into a civilian hospital. We'll notify the American Consulate and you'll probably get a few Marines with you for company until you can come back to us. Oh, and don't worry. You should be better in a week and we'll make certain to pick you up or fly you to some place where we can get you back on. Okay?" Seeing them both smile, even weakly, he said, "Good!"

Forty minutes later they were on the upper deck. The steel shell that protected the contents of the SEAL's equipment was rolled back and preparations were made to raise the refueling hose. Blair and Livingston were staged just inside of the hatch at the back of the sail. By agreement, once the helicopter arrived, it would be refueled first and then her passengers taken aboard.

The Navy crew took over the operation. As the helo hovered above, it lowered a metal cable. This was captured using a heavily insulated wooden pole and then pressed against a special place on the hull. Everyone could see the static electricity arc from the cable to the grounding pad.

"If that had been a person," Bud commented, "they might have been hurt."

"Fried and dead in about a half-second, Mr. Barclay," a nearby sailor told him. "Like getting hit by lightning!"

Bud looked from the sailor to the cable, now being attached to an anchorage point, and then back to the sailor. "I did carrier duty for a year," the petty officer told him. "The deck crew had to do this for every helo and every time they came back aboard. The old *Ranger* lost a couple men on one of her final Viet Nam cruises. Got sloppy and paid for it." He gave Bud a 'what can you do?' look and then turned to unreeling the refueling hose.

Twenty minutes later, and with its two passengers strapped in, the pilot of the hovering helicopter opened his side window, gave a small salute toward Tom and mouthed, "*Merci, mon ami.*" A moment later, it was a thousand feet away and climbing into the sky.

Tom placed a radio call to Enterprises.

“Tom. This is Harlan. I had them route you to me before you talk with Damon. I’ve got some news.”

“Good news I hope. We just had to send a couple of our Navy team to shore to a hospital. What’s up?”

“Sorry to hear about them. Will they be okay?”

“Looks like it.”

“Well, then you might like this news. Alex Bannister cracked finally. He tried to play the uncle Senator card and was not only rebuffed, the Senator suggested that the death penalty might be a possibility since he is technically still in the Navy and guilty of treason.”

“What did he say, Harlan?”

“Just this. Whoever hired him is not the Black Cobra. It is a female. He thinks she is Asian and possibly North Korean. And, she has declared an all out effort to ruin Swift Enterprises!”

Tom tried to digest all this. “But, why us? I don’t remember doing anything to any North Korean woman.”

“No. But you did do something to her father. The real Black Cobra! If this woman is who Interpol believes, she is the illegitimate offspring of our old nemesis and a minor foreign dignitary’s wife. Plus, we don’t know for certain but it seems that your mystery sub may have been secretly purchased from the Russians and snuck out of harbor almost four years ago. What we believed to be the K-3 might be an older diesel boat in disguise.”

“This is getting all sorts of messy, Harlan. But, thanks for the info. Unless there’s something else...”

“Just that a group of maritime accident investigators have determined that the *Fairfax* was rammed. Most likely by a submarine, but no idea which one. She would have gone under in less than thirty seconds with the damage she sustained.”

“Wow. Any other information about what kind of sub?”

“Nope. But the nuclear experts discovered that one of the two non-U.S. bombs was loaded and hot. From the radiation signature they are almost certain it contained materials from an old U.S. weapon. Like the ones lost back in the fifties. While you try to digest that I’ll connect you with your dad. Hang on.”

A minute later, he heard, “Hello, Son. I hear through those ‘channels’ people talk about that you’ve had a successful fishing trip. Catch your limit?”

“No. Still one fish shy, Dad.” Tom had to smile in spite of recent revelations. Speaking in code was a little goofy but harmless. He told his father about the events surrounding the recovery of the reactor section and also about the shore transfer.

“You handled it well it appears. I’ll have Doc Simpson fly over and bring them back here if necessary. Otherwise, he’ll get them patched up and back to you as soon as possible. Where are they going?”

“I’m pretty certain it’s the port town of Brest. As the helo flies, it is closest city of any size, and they have a Naval Air Base there. I need a favor. Can you follow up on the whole *Le Terrible* thing for me? I’m not out for blood, but I really don’t want this swept under the rug. It might have ended very badly.”

“I’ll see to it, Tom. And, before you say it, I’ll give your love to Bashalli, Sandy and your mother.”

“As they say around these parts, *merci, mon père*. It’s back to the old fishing hole for your number one son. Bye!”

Moments later, and with the cover sealed back over the upper storage compartment, the SubLinator slipped beneath the waves.

Tom knew it would be useless to release the Slab and the Hounds right here. There would be far too much radiation detectible directly beneath them. The best thing to do was to take them several hundred miles away—probably to the north—and to release them. If they headed directly back to their current location, he might need to do some reprogramming. Or, as he thought about it, finding no other target might mean that the fourth torpedo was not in the area.

Perhaps, not on the ocean floor.

He didn’t like the possibility that it had been recovered by some non-friendly entity. Like the mysterious black submarine.

Could something like that be made operational after all these years? He wondered. Or, could a determined individual use the nuclear warhead from the old torpedo in something new? Something that might be fired at them at any time?

CHAPTER 19 /

A TINGLE UP BUD'S SPINE

FIVE DAYS went by with no indication that a fourth weapon was in the large Bay of Biscay area. It was possible that it had drifted to the edge of the continental shelf and plunged thousands of additional feet underwater.

Anything was possible.

He went into conference with agent Underwood, Bud, Slim, Zimby and Senior Chief Murray, the boat's nuclear propulsion expert.

"Chief? I know that reactors and generators are your forte, but you've got a lot of Navy experience that we don't. What can we do to try to locate that missing weapon?"

The man considered a few things before responding. "Well. Okay. Let's take this step-by-step. All four were reported to be in the forward torpedo room. That part of the hull split wide open spilling everything out onto the floor where currents scattered them all. How far apart were they and how far from the bow?"

Tom pulled out a piece of paper and read down through it. "The K-3 reportedly went down roughly two hundred ninety-five to three hundred miles almost due west of a place called Quimper, France. Oh," he brightened as he saw where it was on a map. "That's just a few dozen miles from where they flew Blair and Livingston to. Anyway, the forward section with the torpedo room ended up being found fifteen to twenty miles on a heading of two-six-zero from the reported sinking."

He looked up to see that the chief was scribbling something on a note pad. As the man looked back up, Tom continued.

"Torpedo one—the first one we fished out—was nearly seventy miles from the bow on a heading of two-two-seven. If we take the bow as the constant reference point, then number two was one hundred and five miles on heading two-one-three. Number three ended up the closes at just fifty-three and a half miles on heading one-eight-five. That gives us quite a spread."

"Yes, it does, but given that the currents swirl around here by the seasons it isn't unreasonable," the Chief concluded. "With everything south and west of the bow, and we've scoured in between, my best guess is the number four is either still in the bow and hasn't leaked —" he stopped to let this sink in, "—or it has rolled farther out. Way out of the Bay and into the actual Atlantic. Or..."

“Or somebody else has it,” Bud finished. “Yikes!”

As they all sat around talking about the implications, the Chief cleared his throat. “There’s another possibility or two. First, there never was a fourth torpedo. Not likely, but always possible given how the Russians used to brag a lot and give out misinformation. The other possibility is this. *We already have it!*”

His statement was met with blank stares and silence.

Tom finally spoke. “You can’t mean that we have it in the aft section, do you, Chief?”

The Navy man nodded. “She had both forward and aft torpedo rooms. Smart tactics say that you don’t put all your eggs in one basket. If you lose the forward torpedo room, you always can turn tail and fire one or two out the arse end, pardon my Navy language.”

“How do we find out, skipper?” Slim asked. “It’s pretty hot in there. You don’t dare send a diver in.”

“We’ve got the Slab. It has a camera in its nose, right?” Zimby asked.

Tom replied, “We do and it does. There’s no time like the present. Come with me,” he said and rose from his seat.

The little group moved into the control room where the monitoring panel for the submersibles was located. With a few deft moves of his fingers over the control board, Tom activated and launched the Slab. It spun around and headed for the cargo net and the dangling aft section of the K-8.

“If it is back there, and assuming she was carrying a full load of torpedoes,” David Underwood stated, “we should see six in racks with two empty spaces and the two tubes closed. That means they have fish inside. One might be ours.”

The slab moved up against the cargo net. It could not, of course, get through, but Tom hoped that the camera and lights might find enough gaps to provide a good look. After three tries it was evident to all that the Slab was just too large and the net too tightly woven.

“What’s the smallest thing you got onboard?” the Chief asked. “That you can put in there with a camera, I mean.”

“Other than the Slab, the little Hounds,” Tom answered.

“The little cone things?” Tom nodded. “And, how big are they?”

“Well, a few feet long and a couple wide. Not any narrower than the Slab. Why?”

“Can that cone bit be taken off?”

Tom realized where this was going. “And, a camera put in. Right?”

Then sure. I can have one outfitted in about an hour. Then, we slip in the open forward end and just move back until we get to the aft torpedo room. Though, I'm not sure what we'll do if it is closed and sealed."

Tom had one extra Hound onboard that had not been in the water, and therefore not exposed to radiation. It was his backup. Now, he disconnected the sensor array from the body and lifted it away. He spread fast-setting silicone over the screw holes and the three data connectors so water would not ruin the little device. Next, he opened the nose and removed the radiation counter. In its place he mounted a small, remote camera and lamp. It would provide sufficient picture to see what might be in there.

After closing the thing up he had it run through its check sequences. Everything looked good. While Zimby took it to the hatch and airlock nearest the front end of the wrecked submarine section, Tom slid into the seat at the control board and set everything for manual control. Everyone from the meeting, plus at least ten others, were crowded behind him. He remotely flooded the airlock and then opened the outer hatch. The little stripped-down submersible, looking more like a playful mini torpedo than a precise scientific device, slowly dropped down and into the bay. Tom concentrated on the view from the small camera to aid him in steering it to the best opening.

It slipped inside and headed to the aft end.

They could all see the reactor room as it passed through. There was still some small leakage of coolant fluid, and as the Hound slipped through it, the picture scrambled for a moment. But, it cleared once they had passed the leak.

The aft torpedo room was wide open, the hatch twisted and shoved to one side. In went the Hound. Its light was barely ample to reach the far end, just about thirty feet away. Tom stopped forward motion and swung it to one side.

They all counted. *One - two - three - four torpedoes*. All with markings that indicated they were conventional, not nuclear.

Tom swung the camera end back around. As the field of vision passed the tubes, everyone could see that they were wide open. He moved forward enough to ascertain that there were no torpedoes in the tubes.

The little Hound backed up again and began swinging to the opposite side.

A deep breath was taken by all as the picture on the screen showed four torpedoes resting in the starboard side rack. Tom moved in for a closer look. "Yes!" exclaimed Underwood. "Look! The

one on the bottom. It's our fourth nuke!"

Everyone cheered at the news.

"That's why we couldn't find it." Tom turned his head around. "Thank you, Chief. Good call."

The man smiled and said, "That's why they pay me the big bucks!" and ambled out of the control room.

Tom resurfaced and radioed the good news back to Enterprises.

"Wonderful. Admiral Hopkins asks that you bring your catch home. Everyone can take a good, cleansing shower and then you can go back and play some more."

They made top speed and pulled into Kings Bay the afternoon of the fifth day. Tom turned the sub over to the experts who he knew would remove their cargo and decontaminate the interior of the bay. The tomasite coating made it fairly easy as nothing stuck to it.

The cable for the third claw was replaced and all of the claw and winch systems overhauled.

Five days later they were about to cast off to head out when a message came through. "Got some extra cargo for you, Commodore Swift. Can you please hold for two hours. It's a necessary delay I've been assured."

When it arrived, Tom had to agree. Millie Blair and Arnie Livingston came walking across the gangway and onto the upper deck. When Tom opened the sail hatch they asked for permission to come aboard.

"You bet. Permission granted. How are you?"

"Feeling fine and a little ashamed," Livingston told him. "Mill—I mean Petty Officer Blair and I pulled a rookie mistake. Rule one when visiting a foreign port is 'don't eat street food and don't drink water unless you bring it.'" He shook his head and looked at Tom. "Who'd have thought our own nation's capital would do us in?"

"Not to worry. We missed you, but things went fairly well. We're leaving with an empty belly and a plan to check out the North Atlantic for a couple Russian subs they lost up there. As long as your fingers work, we'll do okay."

After leaving port, the SubLinator headed for a point about three hundred miles Northwest of Norway and into the Berents Sea. They arrived in just under five days and set about launching the Slab and Hounds.

"We're going after another old Soviet sub," Tom informed the crew. "The K-278. She sank in 1989 up here with a reactor plus two warheads. She is a unique boat they used to test new technology. It

might have been that very technology that sank her. We know within a mile where she is. What we don't know is the state of her other weapons, including her onboard missiles."

"Is she another broken hull?" one of Tom's Fearing Island men asked.

"I believe she is pretty much intact. She's a mile down and there's evidence that the Soviets tried to do some underwater patching of the hull to contain any leakage. As we discovered with the second lift of our previous catch, it might be best to use the net. We'll see."

It required less than three hours to locate the submarine. It was, as assumed, in fairly good condition. With E-Squared assisting Millie Blair to understanding the net technique, they quickly had it snugly in the container and slug halfway up to the SubLinator.

Nothing untoward or unexpected happened and Tom was able to declare success less than ten hour after they began. Because he realized that any net used would need to be left around the hull, he had arranged to bring along three additional ones. If everything went right, they would return to Kings Bay with four complete wrecks.

Their next destination was north and east, above the Arctic Circle.

This time it was much more difficult to locate the sunken Soviet Sub K-27. Nine days went by with nothing detected.

Bud was standing watch one evening in the control room. He was bored. He missed Sandy. And, he didn't understand how the Navy crew could be taking all this in stride.

"How do you stand it?" he asked the petty officer at the SONAR station.

"How do I stand what, Mr. Barclay?"

"The long hours. The repetition. Heck. Wearing the headphones. I'd have a massive headache if I had to wear those as long as you do."

The petty officer laughed. "You get used to it. You train for it. Out in the fleet you don't get a chance to get bored."

Bud grinned. "Lots of exciting cat-and-mouse games between subs and surface ships?"

"Naw. GQ. General Quarters. It was developed to keep us on our toes and also to keep us from getting enough sleep. Keep 'em tired and they can't muster the energy to get bored. I'm loving this more relaxed approach. Besides, you can always do what I do. I make a little game out of everything I get on the scope. You know. Try to figure out what ship it is by its noise signature."

"I've got no idea about that. Ships have a special sound?"

The man slipped his headphones off and handed them to Bud. As soon as he had them on his head, the petty officer adjusted a few knobs, aligned a cursor over a green blip on his scope and pressed a button.

Bud's expression immediately changed. What had been a cacophony of noises became a single sound, almost like a damp *chugga-chugga* sound of an old locomotive. He slipped one earpiece off. "What's that?"

"That is a large freighter out of Norway, about ten miles off. She's from the same class of cargo carriers that you see all over the ports of the States. Big container ship. And, if you listen carefully, you can tell that she has a damaged blade on one of her screws. Listen."

Bud slipped the earpiece back on. It took a lot of concentration, but there it was. Along with the locomotive sounds there was a rhythmic slap and splash sound. When he described it to the petty officer, the man smiled.

"That's the bad blade splashing into the water. Since you can hear that, you can tell that she is riding high in the water, which means she is empty and just traversing to some place to pick up a load."

"Can you tell which ship she is?"

"Well, she's the Nippon Yusen Vega."

"Jetz!" Bud exclaimed. "Color me very impressed. All that from one bad blade. Wow!"

"Actually," the Navy man said lowering his voice, "I can tell the class and the blade thing and tell you how many screws she has even if she travels with one or more stopped, but I checked the latest shipping news an hour ago to get the name. Sorry to disappoint you. I'm not *that* good."

Bud handed the headphones back. "I'm impressed just on getting the ship class thing. I'll say it again. Wow!" The rest of Bud's watch went by quickly.

The following day they found the K-27. Not only was she completely intact, she was totally covered in a thick coat of silt. In fact, she emitted so little radiation that they only found her by accident. From five hundred feet above, she looked more like a lump in the ocean floor than a submarine.

Once located, however, she was easy to uncover using the propulsion jets from the jetmarine to 'blow' the silt off, and then to roll upright and pick up to get into a new net. She came up with no trouble and was snugged up against the roof of the recovery bay and held fast by the old sub clamps.

"Where to now, Tom," Bud asked after everyone had taken the

night off.

“There are supposed to be a pair of subs under the arctic ice cap. Remember years ago when the Russians planted an underwater flag and laid claim to the entire polar region?”

“Yeah. Didn’t really stand up in international court, did it?”

“No, but it is believe that they might have used that as a ruse to dump some old decommissioned reactors. The Admiral wants us to look for those before we try for the other couple of subs including at least one other November class, the K-159.”

After briefing the rest of the crew, they set course for a point that would see them two thousand feet down with a mile or more of arctic water under them and hundreds of feet of ice above.

On entering one possible target area they released the Slab and the Hounds. Five hours later three of the Hounds signaled that they were in distress. The SubLinator reached them in a few minutes and took them back onboard. Once inside the sub and on Tom’s work table, the distress signals ceased and they reported that everything was perfect.

In the next hour all of the others gave off similar distress signals. As with the first ones, this rectified itself as soon as they were out of the water.

Tom knew the answer.

“It’s the enormous cold,” he told Bud. The Slab has so much electronics inside that it is keeping warm enough, but these little guys are freezing out there.”

“What can you do?”

“Make a little heater for them. Hand me that small box of miniature Swift Solar batteries.”

Two hours later he and Bud were installing devices about the size of two packs of playing cards. Each one included a small fan, a coil of resistive wire that glowed when electricity flowed through it, and the battery.

“Ought to last at least twenty-four hours,” Tom said.

The heaters did the trick. None of the Hounds reported any distress for the next full day.

The next morning Tom was taking his turn at being Officer of the Watch and Bud was over talking with one the sonarmen. A few minutes later, Bud got up and wandered over. “Anything yet, professor?”

“Actually, yes. We picked up an interesting signal, or group of signals, late yesterday. We’ve been following our submersibles since. It’s kind of odd, though. Between them all, they are spread out by close to a mile. Yet, each one is registering something directly in front of it.”

“So? Isn’t that what they’re supposed to do?”

“No. There should be some sort of spread. If there is one source out there, they should all be pointing at angles right at that one point. They’re all pointing straight out. That means either we’ve got a wide field of radioactive debris or a massive source many, many miles out.”

Bud didn’t know how to respond, so he offered to go grab coffee for both of them. Tom thanked him and said, “Double sugar in this one.”

After returning with Tom’s extra sweet cup, Bud went forward to the large view windows at the very front of the control room. He stood there looking out at the ice overhead and the great expanse of water below. The aqualamps’ light was barely reaching the sea floor thousands of feet below them. He could see the Slab in the distance, but the small size of the Hounds made them undetectable at anything greater than about two thousand feet.

Over his shoulder, he asked, “Tom? You know that feeling you get when you’re watching a spooky movie and all of a sudden the low zhu-zhu-zhu-zhu-zhu-zhu of a cello comes in? Then, a few seconds later the killer pops up from behind a gravestone and slashes everyone’s throats?”

Without looking, he could tell that Tom was smiling at him.

“Yeah. Bash really hates it when that starts happening. She buries her face in my shoulder and won’t look until the movie is over. Funny thing, though. She keeps wanting to see those sorts of movies with me. Why do you ask?”

“Well, I usually get a shiver running up and down my spine when the music comes in. Like, my body knows something is about to happen.”

“So?” Tom asked stepping up to stand next to his friend.

“So, looking out here I’m getting a tingle. Not an actual shiver. Yet.” He looked over at Tom. “Call me crazy... no, don’t... but I’m having something like a premonition. Something evil is out there.”

Tom put a hand on Bud’s shoulder and squeezed. “Let’s hope it’s not the black sub. I don’t think they’re going to just sit back and watch us the next time we encounter them.” When Bud glanced at Tom, he added, “You’re not the only one with premonitions, flyboy.”

“The Slab is slowing down, Captain,” announced the man on the control board. “Ditto the Hounds. Down to two knots and continuing to slow.”

Tom walked over to take a look while Bud remained at the windows.

“They’ve stopped. Not reversing direction this time,” Tom observed. “Let’s recall them and then go see what they think they’ve found.”

All of the submersibles returned and parked themselves. Tom and Bud went into the recovery room. Tom sat down and soon had the center gripper claw dropping straight down.

“I thought we’d take the jetmarine down, skipper. What gives?”

“Until we know a little more I want to keep us safe—relatively so—here in the SubLinator.” For the next ten minutes he concentrated on controlling the claw. The water, already dark, was so icy cold that it was thick. The claw was dropping at only about half its normal, warmer water speed.

Even the aqualamp light was having problems with the cold and thick water. Everything looked hazy as though seen through light fog.

Forty minutes later, and about two thousand feet above the bottom, the scene cleared.

Both Tom and Bud gasped.

On the screen and extending to the edge of visibility, rested the hulks of more than a dozen submarines and almost twenty surface ships.

Bud’s spine tingle turned into a deep shiver. “What are we seeing, Tom,” he whispered in an awed tone.

Pointing at the picture, Tom said, “That is some sort of nuclear vessel dumping ground, and my guess is that the—”

The entire SubLinator shook violently. Bud was thrown off his feet and into the passageway behind them.

“Emergency! Emergency!” blared the announcing system. *“Enemy submarine firing torpedoes. Those two missed us, folks and hit the ice above. Captain to the control room!”*

Tom and Bud raced forward and into the large room.

“Status!” he barked.

“We ducked those last two. Or, we ducked the ice they dislodged. The torpedoes missed us by a couple hundred feet.”

“Where’s the sub?”

“Dead behind us. Eight thousand yards and coming in.”

“Full speed ahead. Let’s try to outrun her.”

“Too late, skipper. Two more torpedoes in the water *and heading right toward us!*”

CHAPTER 20 /

NEXT STOP—THE SURFACE

TOM SLAMMED his hand into the emergency ballast button. The tanks blew and the SubLinator responded by lurching upward like an out of control elevator.

The torpedoes passed harmlessly under them by thirty feet.

"Cut the cable and get that door closed!" he demanded. He reset the ballast and the trim. "Where's my speed?"

"Coming on, skipper. The ballast blow overrode the throttle."

The boat could be felt to move forward, picking up speed. Anyone looking out through the forward windows could see the jagged ice rushing past above them by no more than a few hundred feet.

"Helmsman. Take control and get us on a random zig-zag course. If they can't target us that can't hit us unless they get lucky. Dive master? Make sure they don't get the chance to get lucky. Take us down to twenty-three hundred feet.

"Uh, sir?" the Chief Petty Officer manning that station asked. "Isn't that below our crush depth?"

"No," David Underwood spoke up. Giving Tom a look, he stepped forward and said, "Listen up, everybody. This submarine is rated at a crush depth in excess of thirty-two hundred feet. That is highly classified and even the Captain and crew aren't supposed to know."

Everybody was now looking at Tom. He made up his mind quickly. "Take his word for it! Don't ask why. Just consider Mr. Underwood to be an expert on this boat. Dive master? Make that depth three thousand feet. Helm? Commence zig-zag."

Agent Underwood moved over next to Tom and spoke to him in a low tone. "Thanks for the backing. I'm gonna get crucified for telling you all that, but I want to come out of this alive."

"You are an enigma, Mr. Underwood. What else do you know that I *should*?"

"Well, she can do more than the posted maximum speed if you know the activation code. Before you ask, that one I do not know. All I do know is that she can get up and do about sixty knots. Don't worry, though. We can still outrun most older torpedoes. I only hope those guys aren't armed with something newer than that ancient sub should be carrying."

"Two more contacts in the water," the man on the SONAR station

called out.

“How fast are they going?”

“Forty knots, straight and true, Captain.”

Underwood muttered, “They’ve got newer!”

“So, we can outrun them. Correct?” Tom demanded.

“Yes, sir,” the helmsman answered. “Assuming they aren’t the sort that speed up once they acquire a target.”

Tom looked at David Underwood. “Really?” he asked quietly.

The man merely nodded, but then decided to tell Tom, “They have to get within three thousand feet and then they hit about fifty-three knots. Once they close in to a thousand feet, they go turbo and hit about sixty for thirty seconds. If these *are* SK-97’s, then we’ll know in a few minutes.”

“Suggestions? Do we just outrun them for now?”

“You can try, but our zig-zag pattern effectively slows us to about twenty-six knots of straight progress.”

Tom thought this over. He was still considering things when the sonarman called out, “They’ve sped up. Closing now. ETA, fifty-six seconds.”

“Helmsman, stop the zig-zag and head straight on our former course. Uh, one-one-zero.”

“Still closing, Captain.”

“Captain! Should I launch countermeasures?”

Tom’s head whipped around to look at a man sitting at a small station opposite the SONAR panel. “What countermeasures?”

“Uh, Admiral Hopkins had a set of bubble bombs loaded onboard last time we were in port. I thought he told me they are your design, but he said not to tell you about them unless circumstances were...”

Tom’s mind raced. “Yes! Release them when you know they’ll be the most effective. I’m new to using them.”

“Releasing in three... two... one... countermeasures away!” Everyone could hear the whoosh as the bubble bombs were ejected under high pressure. On the SONAR scope he could see five small blips heading back and away from the SubLinator and two other contacts continuing to close. The torpedoes were at six hundred feet now.

Everybody held their breath.

“BBs deploying... now!”

Tom could see everything merge into one expanding blip. Seconds later, nothing had emerged from the blip which was beginning to diminish, and then Tom noticed a small green dot remaining stationary on the screen.

“Are those the torpedoes?” he asked, realizing how shaky his voice now sounded from the great rush of adrenaline.

“Yes, sir! Look at the readout. They’re dropping away toward the bottom. We did it, sir!”

Everyone in the control room let out a cheer.

Seconds later they felt a shockwave as the two torpedoes self-destructed. As quickly as it began, it seemed to be over.

“Where’s that black sub?” Tom demanded.

“She turned after releasing her fish and headed up and away, sir. She’s passing ten thousand yards and leaving in a hurry. Thirty knots... no, wait. She’s slowing. Twenty-five knots... twenty-one... sixteen... I’m pretty sure that she is gliding to a stop, Captain. I can’t hear her screws turning.”

He counted down the speed until the black sub came to a standstill.

“Uh, sir? She’s starting to drop a little. She made it up to nine hundred feet, but she’s at about nine-twenty now.”

“Is she turning or maneuvering in any way?”

“No, sir. Dead in the water.”

The sonaphone crackled to life.

A foreign accented male voice came through. “Mayday. Mayday. We are taking on water and our reactors are beginning to overheat. American submarine. Please. We are declared a Mayday now. Do you hear us? Please. We are declared Mayday!”

Picking up the microphone, Tom answered, “What is the nature of your damage? Also, why did you fire torpedoes at us?”

There was a pause before another voice took over. “Please assist us. It is international law. We lost pressure in our torpedo room when one exploded inside its launch tube. We cannot halt the water at this depth and our reactor cooling system is breaking down. Please. There are thirty-eight men on this submarine.”

“We should just let them sink into oblivion,” one Navy man muttered. Several others in the control room agreed.

Tom looked at Bud and Zimby Cox. They both shrugged, an unspoken agreement that there was little to do but rescue the sinking enemy submarine. He glanced at Underwood, but the man was

standing there with his back to Tom.

“Take us over the top of them. Separation, five hundred feet if you can get it with all the ice above. Get Petty Officer Blair into the recovery room and have Petty Officer Fitzgerald paged to be on the ready. I’ll be back there. We’ll snag her and bring her up.”

“What then?” Bud asked following Tom out of the room and down the passageway.

“We’ll get to that when we get to it.”

They arrived seconds before Millie Blair. She had a towel around her head. Looking up at it, she gave the boys a small smile and said, “Wet. Showering before the attack. Sorry.”

She and Tom sat down at the center and forward controls. Tom waited for the word to come that they had arrived so he could safely open the doors. It came a minute later.

“Directly above them, skipper,” Slim Davis said. They’re dropping at about thirty feet a minute. We’re matching. Underwood is up here and estimates they’ll reach crush depth in about twenty-two to twenty-five minutes. Do you want me closer?”

Tom decided to throw caution to the wind. At best it would take fifteen minutes to get the grippers down. That gave them very little time to grab onto the stricken sub. “Take us to within one hundred fifty, Slim.”

He opened the doors to the recovery bay and soon gave the command to lower the remaining two grippers. The cameras showed a steady stream of bubbles coming from several points on the black sub. There was obvious damage to the port side of the bow. Twisted metal could be seen sticking out. It was also apparent that it had begun to list to port, a sign that water was filling spaces on that side of the hull.

Five minutes later they were approaching the hull. Tom took his gripper to the nose of the submarine. He knew that the shape of the bow would make an easy and effective place to get a grip. As had been done with the Soviet sub in the Bay of Biscay, Millie’s gripper would pick up the sub just forward of her rear dive planes, the narrowest part of the hull and easiest to get wrapped around.

Five more minutes went by while they maneuvered the claws, finally grabbing onto the black sub.

“Got them!” Tom announced on the intercom. “Slim? See if they can blow any ballast at all. It will help if they can.”

A minute later, Slim answered, “Negative. They’ve shut down their reactors to keep them from melting down. They’re on battery power only and have some fumes building up.”

Tom looked at Millie. “Then, the only thing to do is pull. On three...”

They moved the black sub upward as fast as they dared, but it took twenty minutes to get it up and into the recovery bay. It was pulled up and into one of the sets of docking arms left over from the boat’s original mission.

Tom locked his gripper back into its storage position and headed forward.

“Give me partial flood in the bay,” he told Slim. Just enough to let them open their upper hatches and get out.” Into the intercom he said, “Now hear this. We have taken the black enemy submarine into the recovery bay. She is evidently in bad shape, so we need to get her crew off. I want all Navy personnel to report to the small arms locker aft of bulkhead one-oh-six. Mr. Barclay will show you how to use our eGuns. I want our... guests... relieved of anything larger than a jellybean and escorted to storage room five. All Swift personnel report to your stations and cover for our Navy folks.”

He was about to leave the control room when Slim reached out and grabbed Tom’s arm. He said, “Skipper. You need to stay clear. Let Bud and the military take care of them. Just in case. Okay?”

Tom wanted to rush back and be part of the operation, but realized that Slim was correct. A boat’s Captain needed to remain in control and able to make decisions. Just in case.

Five minutes later the report came from the dive station, “We’ve opened an air space about fifteen feet high in the bay, skipper. And, I’ve taken in as much ballast as I can. We’re going up at about fifty feet a minute, but should be okay for fifteen minutes. Then it would be best to re-flood the bay. Don’t think we want to hit the underside of the ice.”

Tom called back to Bud telling him about the time crunch.

“If the fumes coming through our hatch is any indication, they’ll want to get in here as fast as possible. We’ve got, oh, twenty-nine so far. They verified that they had thirty-eight. We’ll make sure we have that many and then you can flood the bay.” He called back two minutes later. “Got all of them, skipper. A couple in really bad shape. Our hatches are closed. Flood away!”

Tom nodded to the dive master. “Flooding space and compensating with ballast.”

“Where to, Tom?” Slim asked.

“Can we get topside and send a radio call through the ice?”

Underwood stepped forward and conversed with the radioman. He turned to Tom.” I was just checking to see, but this boat is still

outfitted for her original purpose, and that was *never* going to include Arctic travels. We don't have the necessary drill to send an antenna up and she certainly isn't built for one of those Hollywood style, slam up through the ice, things."

"Then we head for the nearest sub base, I guess. Iceland?"

"Closest friendly base, skipper," Slim remarked. He had already grabbed a chart to check.

"Set a course for Iceland Mr. helmsman and give us an ETA as soon as possible. As soon as we can surface let me know." To the radioman he added, "I'll want a direct connection to Admiral Hopkins."

Tom decided it was time to go back to interview the Captain of the black sub. With Bud and five of the more burly Navy men, he entered the storage room. Most of the captives were sitting on the floor wrapped in blankets. Tom noted that the medical aide had oxygen masks on nine of them, and he was just pulling a blanket up over the head of one man.

"Sulfuric acid fumes, skipper. We've lost two and might lose several more. There's not much I can do but give them painkillers and O₂."

Tom looked around and spotted a surly-looking man leaning against the forward bulkhead, older by a dozen or more years than anyone else in the crew. Like more than half of the others, he appeared to be of Asian origin. The rest of the crew appeared to be Arabs.

"Captain?" Tom asked stepping over to the man.

"Yes." When the man looked at Tom, he could see the total loss of the will to live in this stranger's eyes.

Tom held out his hand. "Welcome to the SubLinator, sir. While I am angry that you tried to destroy us, I am sorry for the loss of your crewmen."

The man looked suspiciously at Tom. "Why do you not let us die?"

It was a blunt question asked in a blunt manner. Tom's answer was equally blunt.

"I am not a god, sir. I cannot make decisions about who lives... who dies. That is for a court of law at this point. But tell me, please. Why?"

"It is my job." He shrugged as if that was answer enough. When he saw that it was not, he continued, "We are all wanted men by our various nations. We are outcasts. We have no national affiliation. The western word for men such as us is, I believe, mercenary. We do

whatever is asked of us, for pay. No more, no less than that.”

“And your submarine?” Tom asked. “Where did that come from?”

“Who knows? It was ready for us a year ago and we have been on it since. We get radio messages telling what to do and we do it. No more, no less. All I know is that it is a cursed submarine. I have lost fifteen good men to the smelly death vapor from her batteries and another man from exposure to the reactors. It is a cursed Russian junk vessel!”

“But, it can go deeper than the class of subs it comes from. Do you know why?”

The foreign man shrugged and turned away from Tom. He would say no more to Tom.

The SubLimator required four days to traverse the North Atlantic and arrive at the base in Iceland. Tom had been able to radio the Admiral two days earlier and was instructed on where to deliver the black sub. He headed to the west coast of Iceland and the darkened facility.

Once a thriving Naval base, it had been abandoned for many years, at least as far as the public was concerned. It still contained an active submarine pen with room for two or three to put into in case of emergencies or for secret resupply.

Tom knew that the arrival of the disabled black sub had been classified as an emergency and he was given permission to enter on arrival. Divers in special suits using underwater tugs swam up inside of the bay and attached heavy lines to the sub. Once they had returned to the surface, Tom lowered the sub to the rocky bottom, detached his grippers and moved the SubLimator away.

A group of armed guards took the prisoners and the bodies of three deceased men away. Soon, Tom had the SubLimator heading back toward the East Coast of the United States and the base at Kings Bay.

They were met by a cheering crowd of family members, reporters and the general public. Tom and his crew’s exploits had been announced to the world three days earlier. The discovery of the secret submarine graveyard had come as a shock, but plans had already been released about how they would be brought up by Tom’s SubLimator and disposed of properly.

They were directed to tie up next to the quay wall so that everyone could see the submarine and see the crew as they disembarked.

A Navy band played *Anchors Aweigh* as Tom led his crew off. He had decided to let the Navy men and women get into their uniforms and the Enterprises crew to dress in freshly washed jumpsuits. They

came across the gangway mingled together. One sailor then one Enterprise man, and so forth until they all stood in formation and in front of the Admiral, the Secretary of The Navy and the Secretary of Defense.

Right in front of the crowd stood Mr. and Mrs. Swift, Mr. and Mrs. Prandit, and Sandy and Bashalli. They were all smiling and waving.

A small ceremony was held where each of the sailors received a medal of commendation for their actions, and each Enterprises man received a certificate declaring the Navy's highest level of thanks.

Tom was invited to stand with the dignitaries as everyone received their awards. The Secretary of Defense made a short speech praising Swift Enterprises and Tom. The Secretary of The Navy spoke glowingly about the spirit of America. As the Admiral gave his talk about how it really was possible for the military and civilian interest to work together, Tom glanced at the crew and was startled to not see David Underwood. He looked around at the gathered crowd. At the far end of the bleachers that had been erected for the occasion, he finally spotted the CIA man, now dressed in a dark suit.

Underwood smiled and gave a little wave. Tom was puzzled about his unexpected location, but it wasn't the sight of the CIA agent that would have caused Tom to swallow his gum if he had been chewing any. Standing next to Underwood was a person he absolutely had not expected to see. It was Angie Jackson in a bright red dress, her left arm still in a sling. She also smiled at him and then blew him a kiss. David Underwood snapped off a little salute and the two turned around and climbed into the back seat of a black car. It drove off and seconds later turned a corner and was gone.

Tom thought about it and decided that he wasn't really startled or surprised after all.

Finally, it was Tom's turn to speak. He glowingly described how both halves of the crew immediately came together and worked as one. He concluded with, "We had a rare opportunity to work as one cohesive team, all of us in a strange vessel and all doing things we had never attempted before. And, while I am proud of the men from the Swift organization, and I am proud of the men and women of the United States Navy, what I am most proud of is that they seamlessly meshed and worked together, and that I was able to be part of it all."

Bashalli had been beaming and was about to burst by the time Tom finished.

A shout came from the back of the crew. "Let's hear it for Commodore Swift! *He* made this all work!" It was followed by a rousing cheer.

That, in turn, was followed by another voice calling out, "Let's hear it for Chow. He kept us all fed. *Really* well!"

This got both a loud cheer from the crew and a good laugh from the audience.

When the ceremony was over and as the men and women had dispersed into the waiting crowd, Tom took the three dignitaries aside.

"That nuclear graveyard is in fairly bad shape. It needs to be cleaned up as soon as possible."

The Secretary of Defense and Secretary of the Navy excused themselves saying, "We need to talk about where the funding will come from."

"Admiral? I hereby officially turn over the SubLinator to the United States Navy. Although it has been interesting, and I will ensure that your first crew gets fully trained, Swift Enterprises is now out of the submarine recycling business!"

Tom reached out and shook the Navy man's hand. "I strongly suggest that you make Petty Officer Blair and Seaman Livingston a permanent part of this crew. Fitzgerald and Evans, too. They are tops at operating the grippers. You need the four of them. I do have one question before officially retiring."

"Anything, *Commodore* Swift," Admiral Hopkins said with a slight smile.

"That torpedo we found in the sail of *Scorpion*? Who's was it?"

The Navy man looked around them, and then into Tom's eyes. "Sometimes it is best to not dig up old ghosts, Tom."

Tom wanted to ask more, but realized that the Admiral was correct. He shook the man's hand again and said, "I guess we'll be going now, sir."

As the Admiral nodded, Tom turned and held his hand out to Bashalli. She took it and gave it a squeeze. The two stepped down from the platform and slowly walked away.

"So, now you will remain back in Shopton and spend all of your free time with the woman you are supposed to love?" she asked softly.

Tom nodded.

He had every intention of keeping his word, but they both knew that something would come up.

Bashalli only hoped that it would be later rather than sooner.

<•>< **End of Book** ><•>