

VACUUM CLEANER

by Ben Bova

This story was told to Jade Inconnu, a reporter with Global News Corp., by Spenser Johansen while the two of them sat in a bar aboard the mammoth L5 habitat Jefferson.

Back in the old NASA days Sam Gunn and I were buddies -- said Johansen to Jade over a pair of L5 "libration libations."

They had height limitations for astronauts back then, even for the old shuttle. I just barely made it under the top limit. Little Sam just barely made it past the low end. Everybody used to call us Mutt and Jeff. In fact, Sam himself called me Mutt most of the time.

I never figured out exactly why it was, but I liked the little so-and-so. Maybe it's because he was always the underdog, the little guy in trouble with the big boys. Although I've got to admit that most of the time Sam started the trouble himself. I'm no angel; I've raised as much hell as the next guy, I guess. But Sam -- he was unique. A real loose cannon. He never did things by the book. I think Sam regarded the regulations as a challenge, something to be avoided at all costs. He'd drive everybody nuts. But he'd get the job done, no matter how many mission controllers turned blue.

He quit the agency, of course. Too many rules. I've got to confess that flying for the agency in those days was a lot like working for a bus line. If those desk-jockeys in Washington could've used robots instead of human astronauts they would've jumped at the chance. All they wanted was for us to follow orders and fill out their damned paperwork.

Sam was itching to be his own boss. "There's m-o-n-e-y to be made out there," he'd spell out for me. "Billions and billions," he'd say in his Carl Sagan voice.

He got involved in this and that while I stayed in the agency and tried to make the best of it despite the bureaucrats. Maybe you heard about the tourist deal he got involved in. Later on he actually started a tourist hotel at Alpha. But at this point Alpha hadn't even been started yet; the only facilities in orbit were a couple of Russian jobs and the American station, Freedom. Sam had served on Freedom, part of the very first crew. Ended the mission in a big mess.

Well, meantime, all I really wanted was to be able to fly. That's what I love. And back in those days, if you wanted to fly you either worked for the agency or you tried to get a job overseas. I just couldn't see myself sitting behind a desk or working for the French or the Japs.

Then one fine day Sam calls me up.

"Pack your bags and open a Swiss bank account," he says.

Even over the phone -- I didn't have a videophone back then -- I could hear how excited he was. I didn't do any packing, but I agreed to meet him for a drink. The Cape was just starting to boom again, what with commercial launches (unmanned, in those days) and the clippers ferrying people to space stations and all that. I had no intentions of moving; I had plenty of flight time staring me in the face even if it was nothing more than bus driving.

Sam was usually the center of attention wherever he went. You know, wisecracking with the waitresses, buying drinks for everybody, buzzing all over the bar like a bee with a rocket where his stinger ought to be. But that afternoon he was just sitting quietly in a corner booth, nursing a flat beer.

Soon as I slid into the booth Sam starts in, bam, with no preliminaries. "How'd you like to be a junk collector?"

"Huh?"

Jabbing a thumb toward the ceiling he says, "You know how many pieces of junk are floating around in low orbit? Thousands! Millions!"

He's talking in a kind of a low voice, like he doesn't want anybody to hear him.

I said back to him, "Tell me about it. On my last mission the damned canopy window got starved by a stray piece of crap. If it'd been any bigger..."

There truly were thousands of pieces of debris floating in orbit around the Earth back then. All kinds of junk: discarded equipment, flakes of paint, pieces of rocket motors, chunks of crap of all kinds. Legend had it that there was still an old Hasselblad camera that Mike Collins had fumbled away during the Gemini 10 mission floating around out there. And a thermal glove from somebody else.

In fact, if you started counting the really tiny stuff, too small to track by radar, there might actually have been millions of bits of debris in orbit. A cloud of debris, a layer of man-made pollution, right in the area where we were putting space stations in permanent orbits.

Sam hunched across the table, making a shushing gesture with both his hands. "That's just it! Somebody's gonna make a fuckin' fortune cleaning up that orbiting junk, getting rid of it, making those low orbits safe to fly in."

I gave him a sidelong look. Sam was trying to keep his expression serious, but a grin was worming its way out. His face always reminded me of a leprechaun: round, freckled, wiry red hair, the disposition of an imp who never grew up.

"To say nothing," he damn-near whispered, "of what they'll pay to remove defunct commsats from geosynchronous orbit."

He didn't really say "geosynchronous orbit," he called it "GEO" like we all do. "LEO" is low Earth orbit. GEO is 22,300 miles up, over the equator. That's where all the communications satellites were. We damned near got into a shooting war with half a dozen equatorial nations in South America and Africa over GEO rights -- but that's a different story.

"Who's going to pay you to collect junk?" I asked. Damned if my voice didn't come out as low as his.

Sam looked very pleased with himself. "Our dear old Uncle Sam, at first. Then the fat-cat corporations."

Turns out that Sam had a friend who worked in the Department of Commerce, of all places, up in Washington. I got the impression that the friend was not a female, which surprised me. Seemed that the friend was a Commerce Department bureaucrat, of all things. I just couldn't picture Sam being chummy with a desk-jockey. It seemed strange, not like him at all.

Anyway, Commerce had just signed off on an agreement with the space agency to provide funding for removing junk from orbit. Like all government programs, there was to be a series of experimental missions before anything else happened. What the government calls a "feasibility study." At least two competing contractors would be funded for the feasibility study.

The winner of the competition, Sam told me, would get an exclusive contract to remove debris and other junk from LEO on an ongoing basis.

"They've gotta do something to protect the space station," Sam said.

"Freedom?"

He bobbed his head up and down. "Sooner or later she's gonna get hit by something big enough to cause real damage."

"The station's already been dinged here and there. Little stuff, but some of it causes damage. They've got guys going EVA almost every day for inspection and repair."

"And the corporations who own the commsats are going to be watching this competition very closely," Sam went on, grinning from ear to ear.

I knew that GEO was getting so crowded that the International Telecommunications Authority had put a moratorium on launching new commsats. The communications companies were only being allowed to replace old satellites that had gone dead. They were howling about how their industry was being stifled.

"Worse than that," Sam added. "The best slots along the GEO are already so damned crowded that the commsat signals are interfering with one another. Indonesia's getting porno movies from the Polynesian satellite!"

That made me laugh out loud. Must have played holy hob with Indonesia's family planning

program.

"How much do you think Turner or Toshiba would pay to have dead commsats removed from orbit so new ones can be spotted in the best locations?" Sam asked.

"Zillions," I said.

"At least!"

I thought it over for all of ten seconds. "Why me?" I asked Sam. I mean, we had been buddies but not all that close.

"You wanna fly, don'tcha? Handling an OMV, going after stray pieces of junk, that's going to call for real flying!"

An OMV was an orbital maneuvering vehicle: sort of a little sports car built to zip around from the space station to other satellites; never comes back to Earth. Compared to driving the space shuttle, flying an OMV would be like racing at Le Mans.

I managed to keep a grip on my enthusiasm, though. Sam wasn't acting out of altruism, I figured. Not without some other reason to go along with it. I just sat there sipping at my beer and saying nothing.

He couldn't keep quiet for long. "Besides," he finally burst out, "I need somebody with a good reputation to front the organization. If those goons in Washington see my name on top of our proposal they'll send it to the Marianas Trench and deep-six it."

That made sense. Washington was full of bureaucrats who'd love to see Sam mashed into corn fritters. Except, apparently, for his one friend at Commerce.

"Will you let me be president of the company?" I asked.

He nodded. The corners of his mouth tightened, but he nodded.

I let my enthusiasm show a little. I grinned and stuck my hand out over the table. Sam grinned back and we shook hands between the beer bottles.

But I had a problem. I would have to quit the agency. I couldn't be a government employee -- even on long-term leave -- and work for a private company. Washington's ethics rules were very specific about that. Oh yeah, Sam formed a private company to tackle the job. Very private: he owned it all. He called it VCI. That stood for Vacuum Cleaners, Inc. Cute.

I solved my problem with a single night's sleepless tussling. The next morning I resigned from the agency. Hell, if Sam's plan worked I'd be getting more flying time than a dozen shuttle-jockeys. And I'd be doing some real flying, not just driving a big bus.

If things didn't work out with Sam I could always re-up with the agency. They'd take me back, I felt sure, although all my seniority and pension would be gone. What the hell. It was only money. Most of my salary went to my first three wives anyway.

Sam had two problems to wrestle with: How to raise the money to make VCI more than a bundle of paper, and how to get the government to award us one of the two contracts for the experimental phase of the junk removal program.

Sam raised the money, just barely. He got most of it from a banker in Salt Lake City who had a daughter that needed marrying. And did that cause trouble later on! Let me tell you.

But I don't want to get ahead of myself.

We rented a dinky office on the second floor of a shopping mall, over a women's swimwear shop. Sam spent more time downstairs than he did in the office. At least, when the stores were open. Nights he worked with me writing our proposal. He seemed to work better after the sun went down. Me, I worked night and day. Writing a proposal was not easy for me.

Sam went out and hired a wagonload of big-time consultants from academia and industry, guys with fancy degrees and lists of publications longer than a gorilla's arm.

"Gee, Sam, how can we afford all these fancy pedigrees?" I asked him.

He just grinned. "All we need 'em for is to put their names on our letterhead and their resumes in our proposal. That doesn't cost a damned thing. They only get paid when we ask them to consult

with us, and we don't have to ask 'em a thing once we win the contract."

That sounded a little shady to me, but Sam insisted our proposal needed some class and I had to agree with him there. Our only real employees were two bright kids who were still students at Texas A&M, and four local technicians who were part-time until we got the government contract. We leased or borrowed every piece of office equipment. Most of the software our Texas kids invented for us or pirated from elsewhere. We really needed that impressive list of consultants.

Those two youngsters from Texas had come up with a great idea for removing debris from orbit. At least, it looked like a great idea to me. On paper. I knew enough engineering to get by, but these kids were really sharp.

"How'd you find them?" I asked Sam.

"They wrote a paper about their idea," he said. "Published it in an aerospace journal. Their professor put his name on it, just like they all do, but I found those two kids who did the real work and put 'em on the payroll."

I was impressed. I had never realized that Sam kept up with the technical journals.

Well, we finished writing the proposal and e-mailed it up to Washington just under the deadline. You know how the government works: you could have the greatest invention since canned soup but they won't look at it if it isn't in their hands by "close-of-business" on the day they specify. Thank god for the Internet. We just barely made it.

Then we waited. For weeks. Months.

I got nervous as hell. Sam was as cool as liquid hydrogen. "Relax, Mutt," he told me a thousand times during those months. "It's in the bag." And he would smile a crooked little smile.

So there I sat, behind a rented desk in a dinky office, while the days ticked by and our money ran out. I was president of a company that was so close to bankruptcy I was starting to think about moonlighting as a spare pilot for Federal Express.

Then we got the letter from Washington. Very official, with a big seal on it and everything.

We were invited to send a representative to a meeting in Washington to defend our proposal against a panel of government experts. The letter said that there were four proposals being considered. The four companies were Rockledge International, Lockwood Industries, Texas Aerospace, and VCI -- us.

"Holy Christmas!" I said when I read the letter. "We're never going to get a contract. Look at who the competition is: three of the biggest aerospace corporations in the world!"

Sam made like a Buddha. He folded his hands over his little belly and smiled enigmatically.

"Don't worry about it, Mutt," he said for the thousand-and-first time. "It's in the bag. If there's any real problem, I've got four magic words that will take care of everything."

"What did you say?"

"Four magic words," Sam repeated.

I did not share his confidence. In fact, I thought he had gone a little nutty under the pressure.

I was nervous as a kid on his first solo as I flew to Washington on the appointed day. I had spent every day and night since we'd received that letter cramming every bit of technical and financial data into my thick skull. We had even flown over to College Station for a week, where our two bright Texas A&M youngsters stuffed all their info into me directly.

I was surprised to see that one of Sam's two young geniuses was female. Sort of round and chubby, but she had huge dark soulful Mediterranean eyes that followed Sam wherever he moved like twin radar dishes locked onto a target. I figured that maybe Sam had met her before he had read their paper in that journal.

Anyway, there I was, stepping into an office in some big government building in Washington, my head bursting with facts and figures. As offices go, it wasn't much bigger or better furnished than our own little place in Florida. Government-issue desk, table and chairs. Metal bookcases on one side. Faded pastel walls, hard to tell what color they were supposed to be originally. Everything looked kind

of shabby.

I was the last one to arrive. Representatives of our three competitors were already sitting side-by-side on one end of the long table that took up most of the room. They sure looked well-off, knowledgeable, slick and powerful. I felt like an intruder, an outsider, well beyond my depth.

But Sam had given me those four magic words of his to use in an emergency, and I whispered them to myself as I took the last chair, at the foot of the table.

Sitting at the head of the table was a guy from the agency I had met once, when he had visited the Cape for the official ceremonies when we opened space station Freedom. That had been years ago, and I hadn't seen him anywhere around the working parts of the agency since then. On his right-hand side sat three more Government types: old suits, gray hair or none at all, kind of pasty faces from being behind desks all their lives.

The three industry reps were dressed in much better suits: not flashy, but obviously expensive. Two of them were so young their hair was still all dark. The third, from Rockledge International, was more my own age. His hair was kind of salt-and-pepper; looked like he spent plenty on haircuts, too. And tanning parlors. He was the only one who smiled at me as I sat down and introduced myself. I didn't know it right at that moment, but it was the kind of smile a shark gives.

"We're glad you could make it, Mr. Johansen," said the guy at the head of the table. The others sort of snickered.

"My flight was delayed in Atlanta," I mumbled. In those days, when you flew out of Florida, even if you died and were sent to hell you had to go by way of Atlanta.

He introduced himself as Edgar Zane. Thin hair, thin lips, thin nose, and thin wire-frames on his bifocals. But his face looked round and bloated, too big for his features. Made him look like a cartoon character, almost. From what I could see of his belly behind the table, that was bloated too.

Zane introduced everybody else around the table. The Government types were from the Department of Transportation, the Environmental Protection Agency, and the Department of Commerce.

Commerce? Was this bald, sallow-faced, cranky-looking old scarecrow Sam's pigeon in the Commerce Department? He sure didn't give me any reason to think so. He squinted at me like an undertaker taking measurements.

"Before we begin," said the Rockledge guy, Pierre D'Argent, "I'd like to ask Mr. Johansen for a clarification."

Zane peered at him through the top half of his bifocals. "You're here to answer questions, Mr. D'Argent, not ask them."

He beamed a smile toward the head of the table. "Yes, I understand that. But I believe we all have the right to know exactly who we are dealing with here."

He turned his handsome face to me. "VCI is a new firm in this field. I think we'd all like to know a bit more about your company's financial backing and management structure."

I knew right away what he wanted. He wanted me to tell them all that Sam Gunn was the man behind VCI.

I gave him the standard spiel that Sam had drummed into me, like a POW reciting name, rank, and serial number. VCI is a privately-held company. I am the president and Chief Executive Officer. While our staff is small and elite we have an extensive list of consultants who can provide world-class technical, management and financial expertise on every aspect of our program. VCI's principal financial backer is the First Federal Bank of Utah. Our accounting firm is Robb and Steele, of Merritt Island, Florida.

D'Argent smiled at me with all his teeth. "And what role does Mr. Gunn play in VCI?"

"Who?" My voice squeaked a little.

"Sam Gunn," D'Argent said.

I looked up the table. Zane was scowling at me through his wire-frame glasses. He knew Sam,

that was for sure.

Never lie to the government, Sam had instructed me, when there's a good chance that they'll catch you at it.

"Mr. Gunn is the founder of VCI," I said.

"His name doesn't appear in your proposal," Zane practically snarled.

"Yes it does, sir," I corrected him. "On page four hundred and sixty-three." That was back in the boilerplate section where we were required to put in a history of the company. Ordinarily nobody read the boilerplate, but now I knew that Zane and his three harpies would go over it with electron microscopes. How Sam managed to produce forty-seven pages of history about a company that wasn't even forty-seven weeks old was beyond me.

Zane gave D'Argent a glance, then asked me, "Is Sam Gunn going to be actively involved in the project -- if you should be fortunate enough to win one of the contracts?"

"We have no intention to actively involve him in the day-to-day work," I said. It was pretty close to the truth.

Zane looked as if he didn't believe a word of it. I figured we had been shot down before we even got off the runway. D'Argent gave me another one of his shark smiles, looking pleased with himself.

But the bald scarecrow from Commerce cleared his throat and rasped, "Are we here to discuss the competing proposals or to conduct a witch hunt? Sounds to me like a cult of personality."

Zane huffed through his pinched nose and started the official proceedings.

The one thing we had going for us was our technical approach. I quickly saw that all three of our giant corporate competitors had submitted pretty much the same proposal: the old nerf-ball idea. You know, launch a balloon and blow it up to full size once it's in orbit. The balloon's surface is sort of semi-sticky. As it runs into debris in space it bounces them into orbits that spin down into the atmosphere, where the junk burns up. The idea had been around for decades. It was simple and would probably work -- except for sizable chunks of debris, like discarded pieces of rocket stages or hand tools that got away.

It also required a lot of launches, because the nerf ball itself got slowed down enough after a few orbits to come spiralling back into the atmosphere. The nerfs could be launched with small unmanned boosters pretty cheaply, or ride piggy-back on bigger boosters. They could even be tucked into spare corners of shuttle payload bays and injected into orbit by the shuttle crews.

Our proposal was different. See, the junk hanging around up there picked up an electrical charge after a couple of orbits. From electrons in the solar wind, if I remember correctly. Sam's idea was to set up a big electromagnetic bumper on the front end of space station Freedom and deflect the debris with it, neatly clearing out the orbit that the station was flying through. Kind of like the cowcatcher on the front of an old locomotive, only instead of being made of steel our bumper was an invisible magnetic field that stretched hundreds of meters into space out in front of the station.

"The equipment we need is small enough to fit into a shuttle's student experiment canister," I explained. "The bumper itself is nothing more than an extended magnetic field, generated by a superconducting coil that would be mounted on the forward-facing side of the space station."

"The costs..." Zane started to mutter.

"The program will cost less than a continuing series of nerf-ball launches," I said before he could turn to the relevant pages in our proposal. "And the elegant thing is that, since this program's primary aim is to keep Freedom's orbit clear of debris, we will be doing exactly that."

"And nothing else," D'Argent sniped.

I smiled at him for a change. "Once Freedom's orbit has been cleared we could always detach the equipment, mount it in an orbital maneuvering vehicle, and clean out other orbits. The equipment is very portable, yet durable and long-lasting."

We went into some really heavy-duty arguing, right through lunch (a plate of soggy sandwiches and cans of soda brought in to us by a delivery boy who had dirt under every one of his fingernails) and

all through the long afternoon.

"I've got to admit," Zane finally said as it started to get dark outside, "that VCI's technical proposal is extremely interesting."

"But can a newly-hatched company be expected to carry through?" D'Argent asked. "I mean, after all, they have no track record, no real financial strength. Do you really trust Sam Gunn, of all people, to get the job done?"

I held onto my temper. Partly because Sam had drilled it into me that they'd drop our proposal if they thought I was as flaky as he was. But mostly because I heard Sam's four magic words.

"Small business set-aside."

They were spoken by the cadaver from Commerce. Everything stopped. The room fell so quiet I could hear the going-home traffic from out on the streets below even through the double-paned sealed windows of the office.

"This program has a small business set-aside provision," the Commerce scarecrow said, his voice crackling as if it was coming over a radio link from Mars. "VCI is the only small business firm to submit a proposal. Therefore, if their proposal is technically sound -- which we all agree that it is -- and financially in line, we have no choice but to award them one of the two contracts."

D'Argent's handsome chin dropped to his expensive rep tie. Zane glared at his crony from Commerce. The others muttered and mumbled to themselves. But there was no way around it. Decades earlier the Congress had set up a system so that little companies could compete against the big guys. Sam had found that old government provision and used it.

Later, when I told Sam how things had gone, he whooped and danced on my desk top. Nothing made him happier than using the government's own red tape to his advantage.

"Wait a minute," Jade said, putting down the tall cool glass she had been holding for so long that its contents had melted down to ice water.

Johansen, who had hardly touched his own drink, eyed her quizzically.

"Was that old man Sam's contact in the Commerce Department, after all? Had he tipped Sam off about the small business set-aside?"

I thought the same thing -- Johansen answered -- but the guy slipped out of the meeting room like a ghost disappearing into thin air. And when I asked Sam about it, back in Florida, he just got quiet and evasive. There was something going on, but I couldn't figure out what it was. Not until a lot later.

Anyway, about six weeks afterward we got the official notification that we had won one of the two contracts for what the government called "The Orbital Debris Removal Test and Evaluation Program, Phase I." The other contract went to Rockledge.

"We're in!" Sam yelled. "We did it!"

We partied all that weekend. Sam invited everybody from the swimwear shop downstairs, for starters, and pretty soon it seemed like the whole shopping mall was jammed into our little office. Sometime during the weekend our two geniuses from Texas A&M showed up and joined the fun.

The hangover was monumental, but the party was worth it. Then the work began.

I saw trouble right away. The kids from Texas were really brilliant about superconductors and magnetic bumpers, but they were emotionally about on the level of junior high school.

The girl -- uh, woman -- her name was Melinda Cardenas. It was obvious that she had the hots for Sam. She followed him with those big brown eyes of hers wherever Sam went. She was kind of cute although pretty badly overweight. Could have been a real beauty, I guess, if she could stay away from sweets and junk food. But that's just about all she ate. And every time I looked at her, she was eating.

Her boyfriend -- Larry Karsh -- ate as much junk food as she did, but never put on an ounce. Some people have metabolisms like that. He never exercised. He just sat all day long at the desktop

computer he had brought with him, designing our magnetic bumper and munching on sweet rolls and greaseburgers from the fast-food joint a few doors down the mall from our office. He could lose weight just by breathing, while Melinda gained a pound and a half every time she inhaled.

It took me a while to figure out that Larry was plying Melinda with food so she'd stay too fat for anybody else to be interested in her. They were rooming together, but "like brother and sister," according to Melinda. One look at Larry's pasty unhappy face, sprinkled with acne, told me that the brother-and-sister thing was making him miserable.

"You gotta get her away from me," Sam told me, a little desperation in his voice, one evening down in the bar where we had originally formed VCI.

"Melinda?"

"Who else?"

"I thought you liked her," I said.

"She's just a kid." Sam would not meet my eyes. He concentrated instead on making wet rings on the table top with his beer bottle.

"Pretty well-developed kid."

"You gotta get her off me, Mutt." He was almost pleading. "If you don't, Larry's going to pack up and leave."

I finally got the picture. Sam had used his charm to get Melinda to join VCI because he had known that Larry would come wherever she went. But now Larry was getting resentful. If he broke up our design team VCI would be in deep yogurt.

"Just how much charm did you use on her?" I asked.

Sam raised his hands over his head. "I never touched her, so help me. Hell, I never even took her out to dinner without Larry coming with us."

"Did he have acne back in Texas?"

"Yeah. I think they're both virgins." Sam said it as if it was a crime.

I can see now, with twenty-twenty hindsight, that what I should have done was buddy up to Larry, give him a few pointers about personal grooming and manners. The kid was brilliant, sure, but his idea of evening wear was an unwashed tee shirt and a pair of cut-offs. And he was so damned shy that he hid behind his computer just about all the time. He never went anywhere and he never did anything except massage his computer. And eat junk food. He had that dead-fish complexion of a guy in solitary confinement. He was about as much fun as staring at a blank wall.

To tell the truth, I just couldn't see myself buddying up to the kid. So, instead, I made the mistake of trying to get Melinda interested in me, rather than Sam. I invited her out to dinner. That's all it took. I didn't even hold her hand, but the next morning there was a love poem on my desk, signed with a flowery M. And Larry didn't show up in the office.

"Where is he?" Sam snapped the minute he entered the office -- around ten-thirty. He headed straight for his desk, which I called "Mount Blanc," because of the mountain of paperwork heaped on top of it. Sam paid practically no attention to any incoming paper. The mountain just grew bigger. How he ever found anything in that pile I never knew, but whenever I couldn't find some form or some piece of important correspondence, Sam would rummage through the mountain and pull out the right piece of paper in half a minute.

Neither Melinda nor I answered Sam's question. I didn't know where the kid was. Melinda was watching me shyly from behind her computer. Then I realized that Larry's desk was bare. He had taken his computer.

"Where the hell is he?" Sam screeched.

It took me about ten seconds to figure out what had happened. Ten seconds, plus reading Melinda's poem. It was pretty awful. Can you imagine a poem that rhymes dinner, winner, and thinner?

"Where the hell is Larry?" Sam asked her directly.

She shrugged from behind her computer screen. "He's very immature," she said, batting her

eyelashes at me. Good lord, I realized that she was wearing makeup. Lots of it.

"Of all the gin-joints in all the towns in all the world," Sam growled, scurrying from behind his desk and heading for the door. "Come on, Mutt! I've got to meet Bonnie Jo at the airport and you've got to find that kid before he runs back to Texas!"

"Bonnie Jo?" I called after him. I flicked my phone console to automatic answer and then dashed out after him. Melinda sat where she had been since eight that morning; her only exercise was reaching for a bag of nacho chips.

Bonnie Jo Murtchison was the daughter of our financial backer, the banker who wanted his daughter married.

"She's coming in on the eleven o'clock plane," Sam said over his shoulder as we rattled down the stairs and ran out to his leased Jaguar convertible. I never saw it with the top up, yet somehow it was always under shelter when Florida decided to have a cloudburst. Sam was uncanny that way.

"You'll never make it to the airport by eleven," I said, vaulting over the Jag's door.

Sam gave me a sour look as he slid behind the wheel. "And when's the last time any goddamned commercial airliner arrived on schedule?"

He had a point there.

The apartment that Larry and Melinda shared was on the way to the airport. Sam's intention was to drop me off, assuming Larry was still there, and hustle on to the airport.

We spotted him on the driveway of the old frame three-story house, packing all his belongings into their battered old Volvo station wagon. As far as I could see, Larry's belongings consisted of one duffel bag of clothes and seventeen cartons of computer hardware and documentation books.

He was just getting into the car when we pulled up and blocked the driveway, just like the Highway Patrol.

"Where're you going?" Sam yelled as he bounded out of the Jag. I followed behind, my boots crunching on the driveway's gravel.

The three of us looked like a set of Russian dolls, the kind that fit one inside of the other. Sam stood about shoulder-high to Larry, who stood little more than shoulder-high to me.

"Back to Texas," he said, his voice kind of cracking. "You want Melinda, she's all yours."

"I don't want her!" Sam said. "I want her to stop pestering me, for cryin' out loud."

Larry put down the cardboard carton he was carrying on the tailgate of the Volvo and drew himself up to his full height.

"She's not interested in you anymore, Mr. Gunn. She's gone batty over this guy." He jutted his lower lip at me.

For a ridiculous instant I felt like a gunslinger in a Western, about to be challenged by a callow youth.

"Listen, son," I said as reasonably as I could, "I was just trying to get her mind off Sam."

He kind of sagged, as if he'd been holding himself together for so long that his strength had given out. I thought he might drop to the ground and start crying.

But he didn't. "Sam, you -- what's the difference? She doesn't like me anymore. I guess she never really liked me in the first place."

I looked at Sam and he looked at me. Then he got a sort of strange, benign smile on his face, an almost saintly kind of expression I had never seen on Sam before.

He went over to Larry and slid an arm around the kid's skinny shoulders, as much to prop him up as anything else. "Larry," he asked in a quiet, kindly sort of voice, "have you ever heard of a fella named Cyrano de Bergerac?"

"Who?"

"Cyrano?" Jade looked sharply into Johansen's sparkling blue eyes.

"You know the play?" he asked.

"I played Roxane in our high school drama class," she said.

"Oh." Johansen looked slightly uncomfortable. "I think I saw it on video once. Had a lot of sword fighting in it."

She sighed and nodded. "Yes, a lot of sword fighting. And Cyrano coached Christian so that he could win Roxane's heart -- even though he loved her himself."

Johansen nodded back at her. "Yep. That's just what Sam did. Or at least, that's what he got me to do."

It was sheer desperation -- Johansen continued. Without Larry we'd never be able to build our hardware on the schedule we had promised in our proposal. Or maybe not at all.

"Don't worry about a thing," Sam told the kid, right there in the driveway. "Mutt and I know everything there is to know about women. With us helping you, she'll fall into your arms in no time flat."

The kid's face reddened. "I get kind of tongue-tied when I t-try to t-talk sw- sw-sweet to her."

Sam stared at the kid. A stuttering lover? It didn't look good.

Then I got the idea of the century. "Why don't you talk to her through your computers?"

Larry got really excited about that. Computers were something he understood and trusted. As long as he didn't have to actually speak to her face-to-face he could say anything we gave him.

"Okay," Sam said, glancing at his wristwatch. "Mutt, you take our lovesick friend here to the library and borrow as many poetry books as they'll let you take out. I gotta get to the airport and meet Bonnie Jo."

Melinda looked surprised when we came back into the office; those big brown eyes of hers flashed wide. But then she stuck her nose into her computer screen and began pecking at the keyboard as fast as her chubby little fingers would go.

It was getting near to noon. I went to my desk and ran off the phone's answering machine. There was only one call, from Sam. Bonnie Jo's plane from Salt Lake City was running late. Delays and congestion in Dallas.

So what else is new? I sat Larry down at his desk and helped him unfold his computer and set it up again. Melinda glanced at us from time to time, but whenever she saw me looking she quickly snapped her eyes back to her own screen.

Larry hadn't said a word to her. While he checked out his machine I thumbed madly through one of the poetry books. God almighty, I hadn't even looked at that stuff since they made me read it in high school English classes. I ran across one that I vaguely remembered.

Without speaking, I showed the page to Larry, then left the book on his desk and went over to my own, next to the window. As nonchalantly as I could I booted up my own machine, waiting to see if the kid actually worked up the nerve to send the poem to Melinda, sitting four and a half feet away from him.

Sure enough, the words began to scroll across the screen: "Come live with me and be my Love..."

I don't know what Melinda was working on, but I guess when she saw the message light blink on her machine she automatically set the screen to receive it.

Her eyes went really wide. Her mouth dropped open as she read the lines of poetry scrolling onto her screen. To make sure she didn't think they were coming from me, I picked up the telephone and tapped the first button on my automatic dialer. Some guy's bored voice told me that the day's high would be eighty-two, with a seventy-five percent chance of showers in the afternoon.

Melinda looked at me kind of puzzled. I ignored her and looked out my window, where I could watch her reflection without her knowing it. I saw a suspicion on her face slowly dawn into certainty. She turned and looked at Larry, who promptly turned flame red.

A good beginning, I thought.

Then Sam burst into the office, towing Bonnie Jo Murtchison.

When it came to women Sam was truly democratic. Tall or short, plump or anorexic, Sam made no distinctions based on race, creed, color, or previous condition of servitude. But he did seem to hit on blondes preferentially.

Bonnie Jo Murtchison was blonde, the kind of golden blonde with almost reddish highlights that is one of the triumphs of modern cosmetic chemistry. Her hair was frizzed, shoulder length, but pushed back off her face enough to show two enormous bangle earrings. She had a slight figure, almost boyish. Good legs, long and strong and nicely tanned. A good tennis player, I thought. That was the first thing that popped into my mind when I saw her.

She was wearing a neat little miniskirted sleeveless frock of butter yellow, the kind that costs a week's pay. More jewelry on her wrists and fingers, necklaces dangling down her slim bosom. She clattered and jangled as came into the office, towering over Sam by a good five-six inches.

The perfect spoiled princess, I thought at once. Rich father, beautiful mother, and no brothers or sisters. What a pain in the butt she's going to be.

I was right, but for all the wrong reasons.

The first thing that really jolted me about Bonnie Jo was her voice. I expected the kind of shrill yapping that you hear from the cuties around the condo swimming pool; you know, the ones who won't go into the water because it'd mess up the hairdo they just spent all morning on.

Bonnie Jo's voice was low and ladylike. Not quite husky, and certainly not soft. Controlled. Strong. She didn't hurt your ears when she talked.

Sam introduced her to Larry, who mumbled and avoided her eyes, and to Melinda, who looked her over like a professional prizefighter assessing a new opponent. Then he brought her across the room to my desk.

"This is our president, Spence Johansen," Sam said. "I call him Mutt."

She reached across the desk to take my hand in a firm grip. Her eyes were gray-green, a color that haunted me so much I looked it up in a book on precious stones at the local library. The color of Brazilian tourmaline: deep, mysterious, powerful grayish green.

"And what would you like me to call you, Mr. Johansen?" she asked in that marvelous voice. She just sort of naturally drew a smile out of me. "Spence will be fine," I said.

"Good. I'm Bonnie Jo."

I think I fell in love with her right then and there.

"That was pretty quick," Jade sniffed.

Johansen shrugged. "It happens that way, sometimes."

"Really?"

"Haven't you ever fallen in love at first sight?"

The drinks she had been swilling made her head spin slightly. "Yes, I guess I have, at that," she said at last. That smile of his made her head swim even more.

Johansen looked out across the grassy hills that stretched below them to the edge of the toy-like village. Sunlight filtering through the big solar windows slanted long shadows down there.

"It's going to be sunset pretty soon," he said. "I know a fine little restaurant down in Gunnstown, if you're ready for dinner."

"Gunnstown?" she asked.

"That's the name of the village down there." He pointed with an outstretched arm.

"Should I change?"

Grinning, "I like you the way you are."

"My clothes," she said.

He cocked his head slightly. "It's a very nice little continental restaurant. Tablecloths and candles, that sort of thing."

She said. "Meet me at my hotel room in an hour."

When he called for her, precisely one hour later, Johansen was wearing a comfortable pair of soft blue slacks and a slate gray velour pullover, the closest thing to formal attire on the space habitat. Jade had shopped furiously in Gunnstown's two and only boutiques until she found a miniskirted sleeveless frock of butter yellow.

Once they were sitting across a tiny table, with a softly glowing candle between them, she saw that Johansen was staring at her intently.

Almost uncomfortable, Jade tried to return to the subject of Sam Gunn.

But Johansen said, "Your eyes are beautiful, you know? The prettiest I've ever seen."

Silently Jade retorted, Prettier than Bonnie Jo's? But she dared not say it aloud. Instead, she said:

"Just before you suggested dinner, you were telling me about Bonnie Jo." Jade struggled to keep her voice even. "About falling in love with her."

It wasn't a tough thing to do -- Johansen replied. I had expected a spoiled rich kid. Her father, the banker, had insisted on having one of his own people join the VCI team as treasurer. Apparently his daughter insisted just as stubbornly that she take the job. So there she was, at the desk we shoehorned into our one little office, two feet away from mine.

She had degrees in economics and finance from BYU, plus an MBA from Wharton. She really knew her business. And she was strictly no-nonsense. Sam wined and dined her, of course, but it didn't go any further than that, far as I could tell. I knew Sam had no real intention of getting married to anybody. I didn't think she did, either. Or if she did, she was willing to wait until VCI started making big bucks.

We were all living practically hand-to-mouth, with every cent we got from the government and from Bonnie Jo's father's bank poured into building the hardware for removing debris from orbit. Bonnie Jo was never hurting for spending money, of course, but she never lorded it over us. The weeks rolled by and we sort of became a real team: you know, working together every day, almost living together, you come to know and respect each other. Or you explode.

Bonnie Jo even started helping Melinda in her personal life. Gave her hints about her clothes. Even went on a diet with her; not the Bonnie Jo needed it, but Melinda actually started to slim down a little. They started going to exercise classes down the way in the shopping mall.

I was giving myself a cram course in romantic poetry and passing it all on to Larry. On Valentine's Day he wanted to give Melinda a big heart-shaped box of chocolates. I suggested flowers, instead. I figured she wouldn't eat flowers, although I wasn't altogether certain.

"And write a note on the card they put in with the flowers," I insisted.

He gulped. "Sh-should I s-s-s-sign my n-n-name?"

"Damned right."

Larry turned pale. But I marched him to the florist section of the supermarket and we picked out a dozen posies for her. I towed him to the counter where they had a little box full of blank cards. I handed him my government-issue ballpoint pen, guaranteed to write under water or in zero gravity.

He looked at me, panic-stricken. "Wh-what'll I say?"

I thought for a second. "'To the woman who has captured my heart,'" I told him.

He scribbled on the little card. His handwriting was awful.

"Sign it."

He stared at me.

"Better yet," I said. "Just put your initial. Just an 'L.'"

He did that. We snuck the bouquet into the office while Melinda and Bonnie Jo were out at their exercise class. Larry laid the flowers on her desk with a trembling hand.

Well, the last time I had watched a scene like what followed was in an old video called "Love Is

a Many Splendored Thing." Melinda sort of went into shock when she saw the flowers on her desk, but only for a moment. She read the card, then spun around toward Larry -- who looked white as a sheet, scared -- and launched herself at him. Knocked him right off his desk chair.

Sam gave them the rest of the day off. It was Friday, so they had the whole weekend to themselves.

A few minutes after the lovers left the office, Sam frowned at his computer screen.

"I gotta check out the superconducting coils down at the Cape," he said. "Those suckers in Massachusetts finally delivered them. Arrived this morning."

Two weeks late. Not good, but within the tolerable limits we had set in our schedule. The manufacturer in Massachusetts had called a couple months earlier and said that delivery would be three months late, due to a big order they had to rush for Rockledge International.

Sam had screamed so loud and long into the phone that I thought every fiber optic cable between Florida and Massachusetts would have melted. The connection actually broke down three times before he finished convincing our manufacturing subcontractor that: (a) their contract with us had heavy penalty clauses for late delivery; (b) since this order from Rockledge had come in after our order we clearly had priority; and (c) this was obviously an attempt by Rockledge to sabotage us.

"Tell your goddamned lawyers to stock up on No-Doze," Sam yelled into the phone. "I'm going to sue you sneaking, thieving bastards sixteen ways from Sunday! You'll go down the tubes, buddy. Bankrupt. Broke. Dead in the water. Kaput! You just watch!"

He slammed the phone down hard enough to make the papers on my desk bounce.

"But Sam," I had pleaded, "if you tie them up or shut them down we'll go out of business with them. We need that superconducting coil. And the backup."

A sly grin eased across his face. "Don'tcha think I know that? I'm just putting the fear of lawyers into them. Now," he reached for the phone again, "to put the fear of god almighty into them."

I didn't eavesdrop on purpose, but our desks were jammed so close together that I couldn't help hearing him ask for Albert Clement. At the Department of Commerce.

Sam's tone changed enormously. He was stiffly formal with Clement, almost respectful, explaining the situation and his suspicion that Rockledge was trying to club us to death with their money. I wondered if this guy Clement was the same Commerce Department undertaker who had been at the evaluation hearing in D.C.

Well, it all got straightened out. The next day I got a very apologetic phone call from the director of contracts at the Massachusetts firm, some guy with an Armenian name. Terrible misunderstanding. Of course they wouldn't let this enormous order from Rockledge get in the way of delivering what they had promised to us. On schedule, absolutely. Maybe a week or so late, nothing more than that. Guaranteed. On his mother's grave.

I said nice things back to him, like, "Uh-huh. That's fine. I'm glad to hear it." Sam was watching me, grinning from ear to ear.

The guy's voice dropped a note lower, as if he was afraid he'd be overheard. "It's so much pleasanter dealing with you than that Mr. Gunn," he said. "He's so excitable!"

"Well, I'm the president of the firm," I said back to him, while Sam held both hands over his mouth to stifle his guffaws. "Whenever a problem arises, feel free to call me."

He thanked me three dozen times.

I no sooner had put the phone down than it rang again. Pierre D'Argent, calling from Rockledge headquarters in Pennsylvania.

In a smarmy, oily voice he professed shock and surprise that anyone would think that Rockledge was trying to sabotage a smaller competitor. I motioned for Sam to pick up his phone and listen in.

"We would never stoop to anything like that," he assured me. "There's no need for anyone to get hysterical."

"Well," I said, "it seemed strange to us that Rockledge placed such a large order with the outfit

that's making our teeny little coils, and then tried to muscle them into shunting our work aside."

"We never did that," D'Argent replied, like a saint accused of rifling the poorbox. "It's all a misunderstanding."

Sam said sweetly into his phone, "We've subpoenaed their records, oh silver-tongued devil."

"What? Who is that? Gunn, is that you?"

"See you in Leavenworth, Pee-air."

D'Argent hung up so hard I thought a gun had gone off in my ear. Sam fell off his chair laughing and rolled on the floor, holding his middle and kicking his feet in the air. We had not subpoenaed anybody for anything, but it cost Rockledge a week's worth of extremely expensive legal staff work to find that out.

Anyway, that had happened months earlier, and now the superconducting coils had finally arrived at the Cape and Sam had to buzz over there to inspect them. Leaving Bonnie Jo and me alone in the office. Friday afternoon. The weekend looming.

I did my level best to avoid her. She was staying at the Marriott hotel in Titusville, so I steered clear of the whole town. Kept to myself in my little rattrap of a one-room apartment. Worked on my laptop all day Saturday, ate a microwaved dinner, watched TV. Then worked some more. Did not phone her, although I thought about it now and then. Maybe once every other minute.

Sunday it rained hard. I started to feel like a convict in prison. By noontime I had convinced myself that there was work to do in the office; anything to get out of my room. It was pouring so thick I got soaked running from my parking space to the covered stairs that led up to our office. First thing I did there was phone Sam's hotel down at the Cape. Checked out. Then I phoned his apartment. Not there.

I slid into my desk chair, squishing wet. Okay. He's back from the Cape. He's with Bonnie Jo. Good. I guess.

But I guessed wrong, because Bonnie Jo came into the office, brighter than sunshine in a bright yellow slicker and plastic rain hat.

"Oh," she said. "I didn't know you'd be here."

"Where's Sam?" I asked her.

She peeled off the hat and slicker. "I thought he'd be here. Probably he stayed at the Cape for the weekend."

"Yeah. He's got a lot of old buddies at the Cape."

"And girlfriends?"

"Uh, no. Not really." I was never much good at shading the truth.

Bonnie Jo sat at her desk and picked up the phone. "Highway Patrol," she said to the dialing assistance computer program.

She saw my eyebrows hike up.

"On a stormy day like this, maybe he drove off the road."

The Highway Patrol had no accidents to report between where we were and the Cape. I puffed out a little sigh of relief. Bonnie Jo put the phone down with a bit of a dark frown on her pretty face.

"You worry about Sam that much?" I asked her.

"My job is to protect my daddy's investment," she said. "And my own."

Well, one thing led to another and before I knew it we were having dinner together in the Japanese restaurant down at the end of the mall. I had to teach Bonnie Jo how to use chopsticks. She caught on real fast. Quick learner.

"Are you two engaged, or what?" I heard myself ask her.

She smiled, kind of sad, almost. "It depends on who you ask. My father considers us engaged, although Sam has never actually popped the question to me."

"And what do you think?"

Her eyes went distant. "Sam is going to be a very rich man someday. He has the energy and

drive and willingness to swim against the tide, and that will make him a multi-millionaire eventually. If somebody doesn't strangle him first."

"So that makes him a good marriage prospect."

Her unhappy little smile came back. "Sam will make a terrible husband. He's a womanizer who doesn't give a thought to anybody but himself. He's lots of fun to be with, but he'd be hell to be married to."

"Then why...?"

"I already told you. To protect my daddy's investment."

"You'd marry him? For that?"

"Why not? He'll have his flings, I'll have mine. As long as I can present my daddy with a grandson, everyone will be satisfied."

"But...love. What about love?"

Her smile turned bitter. "You mean like Melinda and Larry? That's for the peasants. In my family marriage is a business proposition."

I dropped the chunk of sushi in my chopsticks right into my lap.

Bonnie Jo leaned across the little table. "You're really a very romantic guy, aren't you, Spence? Have I shocked you?"

"Uh, no, not...well, I guess I never met a woman with your outlook on life."

"Never dated an MBA before?" Her eyes sparkled with amusement now. She was teasing me.

"Can't say that I have."

She leaned closer. "Sam's out at the Cape chasing cocktail waitresses and barmaids. Maybe I ought to go to a bar and see what I can pick up."

"Maybe you ought to go home before you pick up something that'll increase your father's health insurance premiums," I said, suddenly feeling sore at her.

She gave me a long look. "Maybe I should, at that."

And that was our dinner together. I never touched her. I never told Sam about it. But the next morning when he showed up at the office looking like every blue Monday morning in the history of the world -- bleary-eyed, pasty-faced, muttering about vitamin E -- I knew I couldn't hang around there with Bonnie Jo so close.

Melinda and Larry arrived hand in hand. I swear his stuttering had cleared up almost entirely in just that one weekend. Bonnie Jo came in around ten, took a silent look at Sam, and went to her desk as cool as liquid nitrogen. Sam was inhaling coffee and orange juice in roughly equal quantities.

"Sam," I said, my voice so loud that it startled me, "since I'm president of this outfit, I've just made an executive decision."

He looked over toward me with bloodshot eyes.

"I'm going over to the Cape," I announced.

"I was just there," he croaked.

"I mean to stay. Hardware's starting to arrive. We need somebody to direct the assembly technicians, somebody there on the scene all the time, not just once a week. Somebody with the power to make decisions."

"The techs know what they're doing better than you do, Mutt," argued Sam. "If they run into any problems they've got phones, e-mail, faxes -- they can even use the agency's video link if they have to."

"It'll be better if I'm on the scene," I insisted, trying not to look at Bonnie Jo. "We can settle questions before they become problems."

Sam shook his head stubbornly. "We haven't budgeted for you to be living in a hotel at the Cape. You know how tight everything is."

"The budget can be stretched," Bonnie Jo said. "I think Spence is right. His being on the Cape could save us a lot of problems."

Sam's head swiveled from her to me and back to her again. He looked puzzled, not suspicious. Finally he shrugged good-naturedly and said, "Okay, as long as it won't bust the bank."

So I moved to the Cape. During the weeks I was there supervising the assembly and checkout of our equipment I actually did save a couple of minor glitches from growing into real headaches. Larry drove over once a week to check the hardware against his design; then he'd drive back to Melinda again that evening. I knew I could justify the expenses legitimately, if it came to that. Most important, though, was that I had put some miles between myself and Bonnie Jo. And she must have realized how attracted I was to her, because she convinced Sam I should get away.

A couple of my old agency buddies snuck me some time on the OMV simulator, so I spent my evenings and spare weekends brushing up on my flying. Our official program didn't call for any use of orbital maneuvering vehicles. What we had proposed was to set up our magnetic bumper on the forward end of space station Freedom and see how well it deflected junk out of the station's orbital path. Called for some EVA work, but we wouldn't need to fly OMVs.

But Sam had warned me to be prepared for flying an OMV, back when we first started writing the proposal.

"Whattaya think we oughtta do," he had asked me, "if we scoop up something valuable?"

"Valuable?" I had asked.

"Like that glove Ed White lost. Or the famous Hasselblad camera from back in the Gemini days."

I stared at him. "Sam, those things re-entered and burned up years ago."

"Yeah, yeah, I know." He flapped an annoyed hand in the air. "But suppose -- just suppose, now -- that we scoop up something like that."

We had been sitting in our favorite booth in our favorite bar. Sam liked Corona in those days; slices of lime were littered across his side of the table, with little plastic spears stuck in their sides. They looked like tiny green harpooned whales. Me, I liked beer with more flavor to it: Bass Ale was my favorite.

Anyway, I thought his question was silly.

"In the first place," I said, "the magnetic field won't scoop up objects, it'll deflect them away from the path of the station. Most of them will be bounced into orbits that'll spiral into the atmosphere. They'll re-enter and burn up."

"But suppose we got to something really valuable," Sam insisted. "Like a spacer section from that Brazilian booster. Or a piece of that European upper stage that blew up. Analysts would pay good money to get their hands on junk like that."

"Analysts?"

"In Washington," Sam said. "Or Paris, for that matter. Hell, even our buddy D'Argent would like to be able to present his Rockledge lab boys with chunks of the competition's hardware."

I had never thought of that.

"Then there's the museums," Sam went on, kind of dreamy, the way he always gets when he's thinking big. "How much would the Smithsonian pay for the Eagle?"

"The Apollo 11 lunar module?"

"Its lower section is still up there, sitting on the Sea of Tranquility."

"But that's the Moon, Sam. A quarter-million miles away from where we'll be!"

He gave me his sly grin. "Brush up on your flying, Mutt. There are interesting times ahead. Ve-r-r-y interesting."

I could see taking an OMV from the space station and flitting out to retrieve some hunk of debris that looked important or maybe valuable. So I spent as many of my hours at the Cape as possible in the OMV simulator. It helped to keep me busy; helped me to not think about Bonnie Jo.

At first I thought it was an accident when I bumped into Pierre D'Argent in the Shuttle Lounge. It was mid-afternoon, too soon for the after-work crowd. The lounge was cool and so dark that you

could break your neck tripping over cocktail tables before your eyes adjusted from the summer glare outside.

I actually did bump into D'Argent. He was sitting with his back to the aisle between tables, wearing an expensive dark suit that blended into the shadows so well I just didn't see him.

I started to apologize, then my eyes finally adjusted to the dimness and I saw who he was.

"Mr. Johansen!" He professed surprise and asked me to join him.

So I sat at his little table. With my back to the wall. Just the two of us, although there were a few regulars up at the bar watching a baseball game from Japan.

I ordered a Bass. D'Argent already had a tall frosted glass of something in front of him, decorated with enough fruit slices to start a plantation. And a little paper umbrella.

"Your friend Gunn sent our legal department into quite a spin," he said, smiling with his teeth.

"Sam's a very emotional guy," I said as the waitress brought my ale. She was a cute little thing, in a low-cut black outfit with a teeny-tiny skirt.

"Yes, he is indeed." D'Argent let out a sigh. "I'm afraid Mr. Gunn has no clear idea of where his own best interests lie."

I took a sip of ale instead of trying to answer.

"Now you, Mr. Johansen," he went on, "you look like someone who understands where your best interests lie."

All I could think of to say was, "Really?"

"Really." D'Argent leaned back in his chair, looking like a cool million on the hoof: elegant from his slicked-back salt-and-pepper hair to the tips of his Gucci suede loafers.

"I must confess that I thought your technical proposal was little short of daring. Much better than the job my own technical people did. They were far too conservative. Far too."

Was he pumping me for information? I mumbled something noncommittal and let him go on talking.

"In fact," he said, smiling at me over his fruit salad, "I think your technical approach is brilliant. Breathtaking."

The smile was very slick. He was insurance-salesman handsome. Trim gray mustache neatly clipped; expensive silk suit, dark gray. I couldn't tell the color of his eyes, the lighting in the lounge was too dim, but I expect they were gray too.

I shrugged off his compliment. But he persisted. "A magnetic deflector system actually mounted on the space station. Very daring. Very original."

"It was Sam's idea," I said, trying to needle him.

It didn't faze him a bit. "It was actually the idea of Professor Luke Steckler, of Texas A&M. Our people saw his paper in the technical literature, but they didn't have the guts to use the idea. You did."

"Sam did."

He hiked his eyebrows a bit. They were gray, too. "You're much too modest, Spence. You don't mind if I call you Spence, do you?"

I did mind. I suddenly felt like I was in the grip of a very slick used-car salesman. But I shook my head and hid behind my mug of ale.

D'Argent said, "Spence, I know that my technical people at Rockledge would love to have you join their team. They need someone daring, someone willing to take chances."

I guess my eyebrows went up, too.

Leaning forward over the tiny table, D'Argent added in a whisper, "And we'll pay you twice what Gunn is paying."

I blinked. Twice.

The lounge was slowly filling up with "happy hour" customers: mostly engineers from the base and sales people trying to sell them stuff. They all talked low, almost in whispers. At least, until they got a couple of drinks into them. Then the noise volume went up and some of the wilder ones even

would laugh now and then. But while I was sitting there trying to digest D'Argent's offer without spitting beer in his face, I could still hear the soft-rock music coming through the ceiling speakers, something old and sad by the Carpenters.

"I would like you to talk with a few of my technical people, Spence. Would you be willing to do that?"

Twice my VCI salary. And that was just for openers. It was obvious he'd be willing to go higher. Maybe a lot higher. I'd been living on Happy Hour hors d'oeuvres and junk food. I was four months behind on the rent for my seedy dump of an apartment -- which was sitting empty, because of Bonnie Jo.

But I shook my head. "I'm happy with VCI." Happy wasn't exactly the right word, but I couldn't leave Sam in the lurch. On the other hand, this might be the best way to make a break with Bonnie Jo.

Turning slightly in his chair, D'Argent sort of nodded toward a trio of guys in suits sitting a few tables away from us.

"I've taken the liberty of asking a few of my technical people to come here to meet you. Would you be willing to talk with them, Spence? Just for a few minutes."

Son of a bitch! It was no accident that we bumped into each other. It was a planned ambush.

"I think, with your help, we can adapt the magnetic bumper concept easily enough," he was saying, silky-smooth. "We'd even pay you a sizable bonus for joining Rockledge: say, a year's salary."

They wanted to steal Sam's idea and squeeze him out of the picture. And they thought I'd help them do it. For money.

I got to my feet. "Mr. D'Argent, Rockledge doesn't have enough money in its whole damned corporate treasury to buy me away from VCI."

D'Argent shrugged, very European-like, and made a disappointed sigh. "Very well, although your future would be much more secure with Rockledge than with a con-man such as Mr. Gunn."

Through gritted teeth I said, "I'll take my chances with Sam." And I stalked out of the lounge, leaving him sitting there.

"That was a pretty noble thing to do," Jade said.

They were more than halfway through their dinners. She had ordered trout from the habitat's aquaculture tanks. Johansen was eating braised rabbit. Jade had to remind herself that rabbit was bred for meat here in the space habitat, just as it was on Selene. But she had never eaten rabbit at home and she could not bring herself to order it here.

"Nothing noble about it," he said easily. "It made me feel kind of slimy just to be sitting at the same table with D'Argent. Working with the...gentleman, well, I just couldn't do it."

"Even though you were trying to get away from Bonnie Jo."

He shook his head slightly, as if disappointed with himself. "That was the really tough part. I wanted to get away from her and I wanted to be with her, both at the same time."

"So what did you do?"

He grinned. "I got away. I went up to space station Freedom."

Sam had served aboard Freedom when he'd been in the agency -- Johansen explained. He was definitely persona non grata there, as far as the bureaucrats in Washington and the Cape were concerned, even though all the working stiffs -- the astronauts and mission specialists -- they all asked me how he was and when he would be coming up. Especially a couple of the women astronauts.

Living aboard Freedom was sort of like living in a bad hotel, without gravity. The quarters were cramped, there was precious little privacy, the hot water was only lukewarm, and the food was as bland as only a government agency can make it. I spent ten-twelve hours a day inside a space suit, strapped into an MMU -- a manned maneuvering unit -- assembling our equipment on a special boom outside the station.

The agency insisted that the magnetic field could not be turned on until every experiment being run inside the lab module was completed. Despite all our calculations and simulations (including a week's worth of dry run on the station mock-up in Huntsville) the agency brass was worried that our magnetic field might screw up some delicate experiment the scientists were doing. It occurred to me that they didn't seem worried about screwing up the station's own instrumentation or life support systems. That would just have threatened the lives of astronauts and mission specialists, not important people like university scientists sitting safe on their campuses.

Anyway, after eleven days of living in that zero-gee tin can I got the go-ahead from mission control to turn on the magnetic field. Maybe the fact that one of the big solar panels got dinged with a stray chunk of junk hurried their decision. The panel damage cut the station's electrical power by a couple of kilowatts.

Rockledge had already launched two of their nerf balls, one on a shuttle mission and the other from one of their own little commercial boosters. They were put into orbits opposite in direction to the flow of all the junk floating around, sort of like setting them to swim upstream.

Right away they started having troubles. The first nerf ball expanded only part way. Instead of knocking debris out of orbit it became a piece of junk itself, useless and beyond anybody's control. The second one performed okay, although the instrumentation aboard it showed that it was getting sliced up by some of the bigger pieces of junk. Rather than being nudged out of orbit when they hit the sticky balloon, they just rammed right through it and came out the other end. Maybe they got slowed enough to start spiraling in toward re-entry. But it wouldn't take more than a couple of weeks before the nerf ball was ripped to shreds -- and became still-yet-another piece of orbiting junk.

"They're part of the problem," I said to Sam over the station's videophone link, "instead of being part of the solution."

Sam's round face grinned like a Jack-o-Lantern. "So that's why D'Argent's looking like a stockbroker on Black Tuesday."

"He's got a lot to be worried about," I said.

Sam cackled happily. Then, lowering his voice, he said, "A friend of mine at the tracking center says the old original Vanguard satellite is going to re-enter in a couple weeks."

"The one they launched in '58?"

"Yep. It's only a couple of pounds. They called it the Grapefruit back then."

I looked over my shoulder at Freedom's crew members working at their stations. I was in the command module, standing in front of the videophone screen with my stockinged feet anchored in floor loops to keep me from floating around the place weightlessly. The crew -- two men and a woman -- were paying attention to their jobs, not to me. But still...

"Sam," I said in a near-whisper, "you want me to try to retrieve it?"

"Do you have any idea of what the Smithsonian will pay for it?" he whispered back. "Or the Japanese?"

I felt like a fighter pilot being asked to take on a risky mission. "Shoot me the orbital data. I'll see what I can do."

It took a lot of good-natured wheedling and sweet-talking before Freedom's commander allowed me to use one of the station's OMVs. There was a provision for it in our contract, of course, but the station commander had the right to make the decision as to whether VCI might actually use one of the little flitters. She was a strong-willed professional astronaut; I'd known her for years and we'd even dated now and then. She made me promise her the Moon, just about. But at last she agreed.

The orbital maneuvering vehicles were sort of in-between the MMUs that you could strap onto your back and the orbital transfer vehicles that were big enough for a couple of guys to go all the way to GEO. The OMVs were stripped-down little platforms with an unpressurized cockpit, a pair of extensible arms with grippers on their ends, and a rocket motor hanging out the rear end.

I snatched the old Vanguard grapefruit without much trouble, saving it from a fiery death after it

had spent more than half a century in space. It was just about the size and shape of a grapefruit, with a metal skin that had been blackened by years of exposure to high-energy radiation. Its solar cells had gone dead decades ago.

Anyway, Sam was so jubilant that he arranged to come up to Freedom in person to take the satellite back to Earth. Under his instructions I had not brought the grapefruit inside the station; instead I stored it in one of the racks built into the station's exterior framework. Sam was bringing up a special sealed vacuum container to bring the satellite back to the ground without letting it get contaminated by air.

Sam was coming up on one of the regular shuttle resupply flights. Since there wasn't any room for more personnel aboard the station he would only stay long enough to take the Vanguard satellite and bring it back to Earth with him.

That was the plan, anyway.

Well, the news that a private company had recaptured the old satellite hit the media like a Washington scandal. Sam was suddenly hot news, proclaiming the right of salvage in space while all sorts of lawyers from government agencies and university campuses argued that the satellite by rights belongs to the government. The idea of selling it to the Smithsonian or some other museum seemed to outrage them.

I saw Sam on the evening TV news the night before he came up to the station. Instead of playing the little guy being picked on by the big bullies, Sam went on the attack:

"That grapefruit's been floating around up there as dead as a doornail since before I was born," he said to the blonde who was interviewing him. "My people located it, my people went out and grabbed it. Not the government. Not some college professor who never even heard of the Vanguard 1958b until last week. My people. VCI. Part of S. Gunn Enterprises, Unlimited."

The interviewer objected, "But you used government facilities..."

"We are leasing government facilities, lady. We pay for their use."

"But that satellite was paid for by the American taxpayer."

"It was nothing but useless junk. It went unclaimed for decades. The law of salvage says whoever gets it, owns it."

"But the law of salvage is from maritime law. No one has extended the law of salvage into space."

"They have now!" Sam grinned wickedly into the camera.

It didn't help, of course, when some Japanese billionaire offered thirty million yen for the satellite.

Next thing you know, the shuttle resupply flight has no less than five guests aboard. They had to bump an astronomer who was coming up to start a series of observations and a medical doctor who was scheduled to replace the medic who'd been serving aboard the station for ninety days.

Five guests: Sam; Ed Zane from the space agency; Albert Clement from the Department of Commerce; Pierre D'Argent of Rock-by-damn-ledge.

And Bonnie Jo Murtchison.

Sam was coming up to claim the satellite, of course. Zane and Clement were there at the request of the White House to investigate this matter of space salvage before Sam could peddle the satellite to anyone -- especially the Japs. I wasn't quite sure what the hell D'Argent was doing there, but I knew he'd be up to no good. And Bonnie Jo?

"I'm here to protect my investment." She smiled when I asked her why she'd come.

"How did you get them to allow you...?"

We were alone in the shuttle's mid-deck compartment, where she and Sam and the other visitors would be sleeping until the shuttle undocked from the station and returned to Earth -- with the satellite, although who would have ownership of the little grapefruit remained to be seen.

Bonnie Jo was wearing a light blue agency-issue flight suit that hugged her curves so well it

looked like it was tailor-made for her. She showed no signs of space adaptation syndrome, no hint that she was ill at ease in zero-gee. Looked to me as if she enjoyed being weightless.

"How did I talk them into letting me come up here with Sam? Simple. I am now VCI's legal counsel."

She sure was beautiful. She had cropped her hair real short, almost a crewcut. Still she looked terrific. I heard myself ask her, as if from a great distance away, "You're a lawyer, too?"

"I have a law degree from the University of Utah. Didn't I tell you?" The whole situation seemed to amuse her.

When a government employee gets an order from the White House, even if it's from some third assistant to a janitor, he jumps as high as is necessary. In the case of Zane and Clement, they had been told to settle this matter about the Vanguard satellite, and they had jumped right up to space station Freedom. Clement looked mildly upset at being in zero gravity. I think what bothered him more than anything else was that he had to wear coveralls instead of his usual chalky gray three-piece suit. Darned if he didn't find a gray flight suit, though.

Zane was really sick. The minute the shuttle went into weightlessness, Sam gleefully told me, Zane had started upchucking. The station doctor took him in tow and stuck a wad of anti-nausea slow release medication pads on his neck. Still, it would take a day or more before he was well enough to convene the hearing he'd been sent to conduct.

Although the visitors were supposed to stay aboard the shuttle, Sam showed up in the station's command module and even wheedled permission to wriggle into a space suit and go EVA to inspect our hardware. It was working just the way we had designed it, deflecting the bits of junk and debris that floated close enough to the station to feel the influence of our magnetic bumper.

"I must confess that I didn't think it would work so well."

I turned from my console in the command module and saw Pierre D'Argent standing behind me. "Standing" is the wrong word, almost, because you don't really stand straight in zero-gee; your body bends into a sort of question-mark kind of semi-crouch, as if you were floating in very salty water. Unless you consciously force them down, your arms tend to drift up to chest height and hang there.

It made me uneasy to have D'Argent hanging (literally) around me. My console instruments showed that the bumper system was working within its nominal limits. I could patch the station's radar display onto my screen to see what was coming toward us, if anything. Otherwise there were only graphs to display and gauges to read. Our equipment was mounted outside and I didn't have a window. The magnetic field itself was invisible, of course.

"The debris actually gains an electrical charge while it orbits the Earth," he murmured, stroking his gray mustache as he spoke.

I said nothing.

"I wouldn't have thought the charge would be strong enough to be useful," he went on, almost as if he was talking to himself. "But then your magnetic field is very powerful, isn't it, so you can work with relatively low charge values."

I nodded.

"We're going to have to retrieve our nerf balls," he said with a sad little sigh. "The corporation will have to pay the expense of sending a team up to physically retrieve them and bring them back to Earth for study. We won't be launching any more of them until we find out where we went wrong with these."

"The basic idea is wrong," I said. "You should have gone magnetic in the first place."

"Yes," D'Argent agreed. "Yes, I see that now."

When I told Sam about our little conversation he got agitated.

"That sneaky sonofabitch is gonna try to steal it out from under us!"

"He can't do that," I said.

"And rain makes applesauce."

It all came to a head two days later, when Zane finally got well enough to convene his meeting.

It took place in the shuttle's mid-deck compartment, the six of us crammed in among the zippered sleeping bags and rows of equipment trays. Bonnie Jo anchored herself next to the only window, the little round one set into the hatch. D'Argent managed to get beside her, which made me kind of sore. I plastered my back against the airlock hatch at the rear of the compartment; that gave me enough traction to keep from floating around.

Sam, being Sam, hovered up by the ceiling, one arm wrapped casually on a rung of the ladder that led up to the cockpit. Zane and Clement strapped themselves against the rows of equipment trays that made up the front wall of the compartment.

Zane still looked unwell, even more bloated in the face than usual, and queasy green. His coveralls showed off his pear-like shape. Clement seemed no different than he'd been in Washington; it was as if his surroundings made no impact on him at all. Even in a flight suit he was a thin, gray old man and nothing more.

Yet he avoided looking at Sam. And I noticed that Sam avoided looking at him. Like two conspirators who didn't want the rest of us to know that they were working secretly together.

"This is a preliminary hearing," Zane began, his voice a little shaky. "Its purpose is to make recommendations, not decisions. I will report the results of this meeting directly to the Vice President, in his capacity as chairman of the Space Council."

Vice President Benford had been a scientist before going into politics. I doubted that he would look on Sam's free-enterprise salvage job with enthusiasm.

"Before we begin..." There was D'Argent with his finger raised in the air again.

"What's he doing here, anyway?" Sam snapped. "What's Rockledge got to do with this hearing?"

Zane had to turn his head and look up to face Sam. The effort made him pale slightly. I saw a bunch of faint rings against the skin of his neck, back behind his ear, where medication patches had been. Looked like he'd been embraced by a vampire octopus.

"Rockledge is one of the two contractors currently engaged in the orbital debris removal feasibility program," Zane said carefully, as if he was trying hard not to throw up.

Sam frowned down at Zane, then at D'Argent.

Bonnie Jo said, "VCI has no objection to Rockledge's representation at this hearing."

"We don't?" Sam snapped.

She smiled up at him. "No, we don't."

Sam muttered something that I couldn't really hear, but I could imagine what he was saying to himself.

D'Argent resumed, "I realize that this hearing has been called to examine the question of space salvage. I merely want to point out that there is a larger question involved here, also."

"A larger question?" Zane dutifully gave his straight line.

"Yes. The question of who should operate the debris removal system once the feasibility program is completed."

"Who should operate..." Sam turned burning red.

"After all," D'Argent went on smoothly, "the debris removal system should be used for the benefit of its sponsor -- the government of the United States. It should not be used as a front for shady fly-by-night schemes to enrich private individuals."

Sam gave a strangled cry and launched himself at D'Argent like a guided missile. I unhooked my feet from the floor loops just in time to get a shoulder into Sam's ribs and bounce him away from D'Argent. Otherwise I think he would have torn the guy limb from limb right then and there.

Bonnie Jo yelled, "Sam, don't!" Clement seemed to faint. My shoulder felt as if something had broken in there.

And Zane threw up over all of us.

That broke up the meeting pretty effectively.

It took Bonnie Jo and me several hours to calm Sam down. He was absolutely livid. We carried him kicking and screaming out of the shuttle and into the station's wardroom, by the galley. The station physician, the guy who had to stay aboard longer than the usual ninety days because of Sam and the others commandeering the shuttle seats, came in and threatened to give him a shot of horse tranquilizer.

What really sobered Sam up was Bonnie Jo. "You damned idiot! You're just proving to those government men that you shouldn't be allowed to operate anything more sophisticated than a baby's rattle!"

He blinked at her. I had backed him up against the wall of the wardroom and was holding him by his shoulders to stop him from thrashing around. The station's doctor was sort of hovering off to one side with a huge hypodermic syringe in his hand and an expectant smile on his face. Bonnie Jo was standing squarely in front of Sam, her eyes snapping like pistols.

"I screwed up, huh?" Sam said, sheepishly.

"You certainly showed Zane and Clement how mature you are," said Bonnie Jo.

"But that sonofabitch is trying to steal the whole operation right out from under us!"

"And you're helping him."

I waved the medic away. He seemed disappointed that he wouldn't have to stick a needle into Sam's anatomy. We drifted over to the table. There was only one of them in the cramped little wardroom, rising like a flat-topped toadstool from a single slim pedestal. It was chest-high; nobody used chairs in zero-g, you stuck your feet in the floor loops and let your arms drift to their natural level.

Sam hung onto the table, letting his feet dangle a few inches off the floor. He looked miserable and contrite.

Before I could say anything, the skipper poked her brunette head into the wardroom.

"Can I see you a minute, Spence?" she asked. From the look on her face I guessed it was business, and urgent.

I pushed over to her. She motioned me through the hatch and we both headed for the command module, like a pair of swimmers coasting side by side.

"Got a problem," she said. "Mission control just got the word from the tracking center that Rockledge's damned nerf ball is on a collision course with us."

I got that sudden lurch in the gut that comes when your engine quits or you hear a hiss in your space suit.

"How the hell could it be on a collision course?" I didn't want to believe it.

She pulled herself through the hatch and swam up to her command station. Pointing to the trio of display screens mounted below the station's only observation window, she said, "Here's the data, see for yourself."

I still couldn't believe it, even though the numbers made it abundantly clear that in less than one hour the shredded remains of one of the nerf balls was going to come barreling into the station at a closing velocity of more than ten miles per second.

"It could tear a solar panel off," the commander said tightly. "It could even puncture these modules if it hits dead center."

"How the hell..."

"It banged into the spent final stage of the Ariane 4 that was launched last week. Got enough energy from the collision to push it up into an orbit that will intersect with ours in..." she glanced at the digital clock on her panel, "...fifty-three minutes."

"The magnetic field won't deflect it," I said. "It hasn't been in space long enough to build up a static electrical charge on its skin."

"Then we'll have to abandon the station. Good thing the shuttle's still docked to us."

She moved her hand toward the communications keyboard. I grabbed it away.

"Give me five minutes. Maybe there's something we can do."

I called Sam to the command module. Bonnie Jo was right behind him. Swiftly I outlined the problem. He called Larry, back in Florida, who immediately agreed that the magnetic bumper would have no effect on the nerf ball. He didn't look terribly upset; to him this was a theoretical problem. I could see Melinda standing behind him, smiling into the screen like a chubby Mona Lisa.

"There's no way we could deflect it?" Sam asked, a little desperation in his voice.

"Not unless you could charge it up," Larry said.

"Charge it?"

"Spray it with an electron beam," he said. "That'd give it enough of a surface charge for the magnetic field to deflect it."

Sam cut the connection. Forty-two minutes and counting.

"We have several electron beam guns aboard," the skipper said. "In the lab module."

"But they're not powerful enough to charge the damned nerf ball until it gets so close it'll hit us anyway," Sam muttered.

"We could go out on one of the OMVs," I heard myself suggest.

"Yeah!" Sam brightened. "Go out and push it out of the way."

I had to shake my head. "No, Sam. That won't work. The nerf ball is coming toward us, it's in an opposite orbit. The OMV doesn't have enough delta-vee to go out there, turn around and match orbit with it, and then nudge it into a lower orbit."

"You'd have to ram the OMV into it," the commander said. "Like a Kamikaze."

"No thanks," Sam said. "I'm brave but I'm not suicidal." He started gnawing his fingernails.

I said, "But we could go out on an OMV and give it a good squirt with an electron gun as we passed it. Charge it up enough for the magnetic bumper to do the job."

"You think so?"

"Forty minutes left," Bonnie Jo said. Not a quaver in her voice. Not a half-tone higher than usual. Not a hint of fear.

The commander shook her head. "The OMVs aren't pressurized. You don't have enough time for pre-breathe."

See, to run one of the OMVs you had to be suited up. Since the suits were pressurized only to a third of the normal air pressure that the station used, you had to pre-breathe oxygen for about an hour before sealing yourself inside the suit. Otherwise nitrogen bubbles would collect in your blood and you'd get the bends, just like a deep-sea diver.

"Fuck the pre-breathe," Sam snapped. "We're gonna save this goddamned station from Rockledge's runaway nerf ball."

"I can't let you do that, Sam," the skipper said. Her hand went out to the comm keyboard again.

Sam leveled a stubby finger at her. "You let us give it a shot or I'll tell everybody back at the Cape what really happened when we were supposed to be testing the lunar rover simulator."

Her face flushed dark red.

"Listen," Sam said jovially. "You get everybody into the shuttle and pull away from the station. Mutt and I will go out in the OMV. If we can deflect the nerf ball and save the station you'll be a hero. If not, the station gets shredded and you can give the bill to Rockledge International."

I hadn't thought of that. Who would be responsible for the destruction of this hundred-billion-dollar government installation? Who carried damage insurance on the space station?

"And the two of you will die of the bends," she said. "No, I won't allow it. I'm in charge here and..."

"Stick us in an airlock when we get back," Sam cajoled. "Run up the pressure. That's what they do for deep-sea divers, isn't it? You've got a medic aboard, use the jerk for something more than ramming needles into people's asses!"

"I can't, Sam!"

He looked at her coyly. "I've got videodisks from the lunar simulator, you know."

Thirty-five minutes.

The skipper gave in, of course. Sam's way was the only hope she had of saving the station. Besides, whatever they had done in the lunar simulator was something she definitely did not want broadcast. So ten minutes later Sam and I are buttoning ourselves into space suits while the skipper and one of her crew are floating an electron gun down the connecting tunnel to the airlock where the OMVs are docked. Everybody else was already jamming themselves into the shuttle mid-deck and cockpit. It must have looked like a fraternity party in there, except that I'll bet everybody was scared into constipation.

Everybody except Bonnie Jo. She seemed to have ice water in her veins. Cool and calm under fire.

I shook my head to get rid of my thoughts about her as I pulled on the space suit helmet. Sam was already buttoned up. My ears popped when I switched on the suit's oxygen system, but otherwise there were no bad effects.

The orbital maneuvering vehicle had a closed cockpit, but it wasn't pressurized. I lugged the electron gun and its power pack inside. "Lugged" isn't the right word, exactly. The apparatus was weightless, just like everything else. But it was bulky and awkward to handle.

Sam did the piloting. I set up the electron gun and ran through its checks. Every indicator light was green, although the best voltage I could crank out of it was a bit below max. That worried me. We'd need all the juice we could get when we whizzed past the nerf ball.

We launched off the station with a little lurch and headed toward our fleeting rendezvous with the runaway. Through my visor I saw the station dwindle behind us, two football fields long, looking sort of like a square double-ended paddle, the kind they use on kayaks, with a cluster of little cylinders huddled in its middle. Those were the habitat and lab modules. They looked small and fragile and terribly, terribly vulnerable.

For the first time in my life I paid no attention to the big beautiful curving mass of the Earth glowing huge and gorgeous below us. I had no time for sightseeing, even when the sights were the most spectacular that any human being had ever seen.

The shuttle was pulling away in the opposite direction, getting the hell out of the line of fire. Suddenly we were all alone out there, just Sam and me inside this contraption of struts and spherical tanks that we called an OMV.

"Just like a World War I airplane movie," Sam said to me over the suit radio. "I'll make a pass as close to the nerf ball as I can get. You spray it with the gun."

I nodded inside my helmet.

"Five minutes," Sam said, tapping a gloved finger on the radar display. In the false-color image of the screen the nerf ball looked like a tumbling mass of long thin filaments, barely hanging together. Something in my brain clicked; I remembered an old anti-missile system called Homing Overlay that looked kind of like an umbrella that had lost its fabric. When it hit a missile nose cone it shattered the thing with the pure kinetic energy of the impact. That's what the tatters of the aluminized plastic nerf ball would do to the thin skin of the space station, if we let it hit. I could picture those great big solar panels exploding, throwing off jagged pieces that would slice up the lab and habitat modules like shards of glass going through paper walls.

"Three minutes."

I swung the cockpit hatch open and pushed the business end of the electron gun outside with my boots.

"How long will the power pack run?" I asked. "The longer we fire this thing the more chance we'll have of actually charging up the ball."

Sam must have shrugged inside his suit. "Might as well start now, Mutt. Build up a cloud that the sucker has to fly through. Won't do us a bit of good to have power still remaining once we've passed

the goddamned spitball."

That made sense. I clicked the right switches and turned the power dial up to max. In the vacuum I couldn't hear whether it was humming or not, although I thought I felt a kind of vibration through my boots. All the dials said it was working, but that was scant comfort.

"One minute," Sam said. I knew he was flying our OMV as close to the nerf ball as humanly possible. Sam was as good as they came at piloting. Better than me; not by much, but better. He'd get us close enough to kiss that little sucker, I knew.

We were passing over an ocean, which one I don't know to this day. Big wide deep blue below us, far as the eye could see, bright and glowing with long parades of teeny white clouds marching across it.

I saw something dark hurtling toward us, like a black octopus waving all its arms, like a silent banshee coming to grab us.

"There it...was," Sam said.

The damned thing thrashed past us like a hypersonic bat out of hell. I looked down at the electron gun's gauges. Everything read zero. We had used up all the energy in the power pack.

"Well, either it works or it doesn't," Sam said. All of a sudden he sounded tired.

I nodded inside my helmet. I felt it too: exhausted, totally drained. Just like the electron gun; we had given it everything we had. Now we had nothing left. We had done everything we could do. Now it was up to the laws of physics.

"We'll be back at the station in an hour," Sam said. "We'll know then."

We knew before then. Our helmet earphones erupted a few minutes later with cheers and yells, even some whistles. By the time we had completed our orbit and saw the station again, the shuttle was already re-docked. Freedom looked very pretty hanging up there against the black sky. Gleaming in the sunlight. Unscathed.

So all we had to worry about was the bends.

"Was it very painful?" Jade asked.

Johansen gave her a small shrug. "Kind of like passing kidney stones for sixteen or seventeen hours. From every pore of your body."

She shuddered.

"We came out of it okay," he said. "But I wouldn't want to go through it again."

"You saved the station. You became heroes."

We saved the station -- Johansen agreed -- but we didn't become heroes. The government didn't want to acknowledge that there had been any danger to Freedom, and Rockledge sure as hell didn't want the public to know that their nerf ball had almost wrecked the station.

Everybody involved had to sign a secrecy agreement. That was Ed Zane's idea. To give the guy credit, though, it was also his idea to force Rockledge to pay a cool ten million bucks for the cost of saving the station from their runaway nerf ball. Rockledge ponied up without even asking their lawyers and Zane saw to it that the money was split among the people who had been endangered -- which included himself, of course.

Each of us walked away with about five hundred thousand dollars, although it wasn't tax-free. The government called it a hazardous duty bonus. It was a bribe, to keep us from leaking the story to the media.

Everybody agreed to keep quiet. Except Sam, of course.

The medics took us out of the airlock, once we stopped screaming from the pain, and hustled us down to a government hospital on Guam. Landed the blessed shuttle right there on the island, on the three-mile-long strip they had built as an emergency landing field for the shuttle. They had to fly a 747 over to Guam to carry the orbiter back to Edwards Space Base. I think they got Rockledge to pay for

that, too.

Anyway, they put Sam and me in a semi-private room. For observation and tests, they said. I figured they wouldn't let either one of us out until Sam signed the secrecy agreement.

"Five hundred thousand bucks, Sam," I needled him from my bed. "I could pay a lot of my bills with that."

He turned toward me, frowning. "There's more than money involved here, Mutt. A lot more."

I shrugged and took a nap. I wouldn't sign their secrecy agreement unless Sam did, of course. So there was nothing for me to do but wait.

Zane visited us. Sam yelled at him about kidnapping and civil rights. Zane scuttled out of the room. A couple of other government types visited us. Sam yelled even louder, especially when he heard that one of them was from the Justice Department in Washington.

I was starting to get worried. Maybe Sam was carrying things too far. They could keep us on ice forever in a place like Guam. They wouldn't let us call anybody; we were being held incommunicado. I wondered what Bonnie Jo was doing, whether she was worried about us. About me.

And just like that, she showed up. Like sunshine breaking through the clouds she breezed into our hospital room the third day we were there, dressed in a terrific pair of sand-colored slacks and a bright orange blouse. And a briefcase.

She waltzed up between the beds and gave us each a peck on the cheek.

"Sorry I couldn't get here sooner," she said. "The agency wouldn't answer any questions about you until my Uncle Ralph issued a writ."

"Your Uncle Ralph?" Sam and I asked in unison.

"Justice Burdette," she said, sounding a little surprised that we didn't recognize the name. "The Supreme Court. In Washington."

"Oh," said Sam. "That Uncle Ralph."

Bonnie Jo pulled up a chair between our beds, angling it to face Sam more than me. She placed her slim briefcase neatly on the tiled floor at her feet.

"Sam, I want you to sign the secrecy agreement," she said.

"Nope."

"Don't be stubborn, Sam. You know it wouldn't be in the best interests of VCI to leak this story to the media."

"Why not? We saved the friggin' space station, didn't we?"

"Sam -- you have proved the feasibility of the magnetic bumper concept. In a few months the agency will give out a contract to run the facility. If you don't sign the secrecy agreement they won't give the contract to VCI. That's all there is to it"

"That's illegal!" Sam shot upright in his bed. "You know that! We'll sue the bastards! Call the news networks! Call..."

She reached out and put a finger on his lips, silencing him and making me feel rotten.

"Sam, the more fuss you make the less likely it is that the government will award you the contract. They can sit there with their annual budgets and wait until you go broke paying lawyers. Then where will you be?"

He grumbled under his breath.

Bonnie Jo took her finger away. "Besides, that's not really what you want, is it? You want to operate the debris removal system, don't you? You want to sell the Vanguard satellite to the Smithsonian, don't you?"

He kind of nodded, like a kid being led to the right answer by a kindly teacher.

"And after that?"

"Remove defunct commsats from GEO. Retrieve the Eagle from Tranquility Base and sell it to the highest bidder."

Bonnie Jo gave him a pleased smile. "All right, then," she said, picking up the briefcase. She

placed it on her lap, opened it, and pulled out a sheaf of papers. "You have some signing to do."

"What about me?" I asked, kind of sore that she had ignored me.

Bonnie Jo peeled the top sheet from the pile and held it up in the air by one corner. "This one's for Sam. It's the secrecy agreement. There's one for you, too, Spence. All the others have to be signed by the president of VCI."

"Over my dead body," Sam growled.

"Don't tempt me," Bonnie Jo answered sweetly. "Read them first. All of them. Engage brain before putting mouth in gear."

Sam glared at her. I tried not to laugh and wound up sputtering. Sam looked at me and then he grinned, too, kind of self-consciously.

"Okay, okay," he said. "I'll read."

He put the secrecy agreement on the bed to one side of him and started going through the others. As he finished each document, he handed it to me so I could read it, too.

The first was a sole-source contract from the agency to run the debris removal system for space station Freedom for five years. Not much of a profit margin, but government contracts never give a high percentage of profit. What they do is give you a steady income to keep your overhead paid. On the money from this contract Larry and Melinda could get married and take a honeymoon in Tasmania, if they wanted to.

The second document made my eyes go wide. I could actually feel them dilating, like camera lenses. It was a contract from Rockledge International for VCI to remove six of their defunct commsats from geosynchronous orbit. I paged through to the money numbers. More zeroes than I had seen since the last time I had read about the national debt!

When I looked up, Bonnie Jo was grinning smugly at me. "That's D'Argent's peace offering. You don't blab about the nerf ball incident and you can have the job of removing their dead commsats."

"What about retrieving the nerf balls before they re-enter the atmosphere?" I asked. "I'd think that Rockledge would want to get their hands on them, see why they failed."

"Yeah," Sam said. "I want a separate contract from Rockledge to retrieve their nerf balls and..."

"Keep reading," Bonnie Jo said. "It's in the pile there."

She had done it all. VCI would be the exclusive contractor for garbage removal not only for the government, but for Rockledge as well. With that kind of a lead, we'd be so far ahead of any possible competitors that nobody would even bother to try to get into the business against us.

I signed all the contracts. With a great show of reluctance, Sam signed the secrecy agreement. Then I signed mine.

"You're marvelous," I said to Bonnie Jo, handing her back all the documents. "To do all this..."

"I'm just protecting my daddy's investment," she said coolly. There was no smile on her face. She was totally serious. "And my own."

I couldn't look into those gray-green eyes of hers. I turned away.

Somebody knocked at the door. Just a soft little tap, kind of weak, timid.

"Now what?" Sam snapped. "Come on in," he yelled, exasperated. "Might as well bring the Mormon Tabernacle Choir with you."

The door opened about halfway and Albert Clement slipped in, thin and gray as ever, back in his usual charcoal three-piece undertaker's suit.

"I'm sorry if I'm intruding," he said, softly, apologetically.

Sam's frown melted. "You're not intruding."

Clement sort of hovered near the door, as if he didn't dare come any further into the room.

"I wanted to make certain that you were all right," he said.

"You came all this way?" Sam asked. His voice had gone tiny, almost hollow.

Clement made a little shrug. "I had a few weeks' annual leave coming to me."

"So you came out to Guam."

"I wanted to...that was a very courageous thing you did, son. I'm proud of you."

I thought I saw tears in the corners of Sam's eyes. "Thanks, Dad. I -- " He swallowed hard. "I'm glad you came to see me."

"Dad?" Jade was startled. "That withered old man was Sam's father?"

"He sure was," Johansen replied. "He and Sam's mother had divorced when Sam was just a baby, from what Sam told me later on. Sam was raised by his step-father; took his name. Didn't even know who his real father was until just before he started up VCI."

Jade felt her own heart constricting in her chest. Who is my father? My mother? Where are they? Why did they abandon me?

"Hey, are you okay?" Johansen had a hand on her shoulder.

"What? Oh, yes. I'm fine...just...fine."

"You looked like you were a million miles away," he said.

"I'm all right. Sorry."

He leaned back away from her, but his eyes still looked worried.

"So it was his father who fed him the inside information from the Department of Commerce," Jade said, trying to recover her composure.

"Right. That's how Sam learned that the program had a small business set-aside," Johansen explained. "Which was public knowledge, by the way. Clement didn't do anything wrong."

"But he certainly didn't want anyone to know about their relationship, either, did he?"

Johansen nodded. "I guess not. You know, I never saw Sam so -- I guess subdued is the right word. He and Clement spent a solid week together. Once the hospital people let us get up and walk around, they even went deep-sea fishing together."

"I'll have to check him out," Jade said, mostly to herself.

"Clement died a few years later. He retired from the Commerce Department and applied for residency in the first of the L4 habitats, the old Island One. Thought the low gravity would help his heart condition, but he died in his sleep before the habitat was finished building. Sam gave him a nice funeral. Quiet and tasteful. Not what you'd expect from Sam at all."

"And his mother? Is she still alive?"

Johansen shook his head. "He would never talk about his mother. Not a word. Maybe he discussed her with Clement, but I just don't know."

Jade sat back in her chair, silent for a long moment while the candlelight flickered across her face. She had not seen her adopted mother, not even spoken with her by videophone, in more than ten years. The link between them was completely broken.

"So that's how Sam made his first fortune. With Vacuum Cleaners, Incorporated," she said at last.

"VCI," Johansen corrected. "Yeah, he made a fortune all right. Then he squandered it all on that bridge ship deal a couple years later. By then he was completely out of VCI, though. I stayed on as president until Rockledge eventually bought us out."

"Rockledge?"

"Right. The big corporations always win in the end. Oh, I got a nice hunk of change out of it. Very nice. Set me up for life. Allowed me to buy a slice of this habitat and become a major shareholder."

"Did Sam ever marry Bonnie Jo?"

Johansen grimaced.

That got decided while we were still on Guam -- Johansen replied.

Bonnie Jo hung around, just like Clement did. Sam seemed to spend more time with his father than with her, so I wound up walking the hospital grounds with her, taking her out to dinner, that kind of stuff.

Finally, one night over dinner, she told me she and Clement would be leaving the next day.

I said something profound, like, "Oh."

"When will you and Sam be allowed to leave the hospital?" she asked. We were in the best restaurant in the capital city, Agana. It was sort of a dump; the big tourist boom hadn't started yet in Guam. That didn't happen until a few years later, when Sam opened up the orbital hotel and built the launch complex there.

Anyway, I shrugged for an answer. I hadn't even bothered to ask the medics about when we'd be let go. The week had been very restful, after all the pressures we had been through. And as long as Bonnie Jo was there I really didn't care when they sent us packing.

"Well," she said, "Albert and I go out on the morning flight tomorrow." There was a kind of strange expression on her face, as if she was searching for something and not finding it.

"I guess you'll marry Sam once we get back to the States," I said.

She moved her eyes away from mine and didn't answer. I felt as low as one of those worms that lives on the bottom of the ocean.

"Well...congratulations," I said.

In a voice so low I could barely hear her, Bonnie Jo said, "I don't want to marry Sam."

I felt my jaw muscles tighten. "But you still want to protect your father's investment, don't you? And your own."

Her eyes locked onto mine. "I could do that by marrying the president of VCI, couldn't I?"

I know how it feels to have your space suit ripped open. All the air whooshed out of me.

"Spence, you big handsome lunk, you're my investment," she said. "Didn't you know that?"

"Me?"

"Yes, you."

I nearly knocked the table over kissing her. I never felt so happy in all my life.