SMART A Tale of Two Evolutions



by Richard Stotts Independent Book

SMART

A Tale of Two Evolutions By Richard Allen Stotts

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Chapter One All Life is Change

Mendocino Coast, California

Something was amiss. Jonathan Evan Grant came awake as slowly as he usually did and took note that it was already daylight and that the small house was still cold. His grandfather always got up before dawn and turned on the heat to prepare their simple breakfast. The house was very still, there was no smell of coffee, no one had yanked his covers off to prompt him to get up.

Pausing only to pull on his jeans and a sweatshirt against the chill, the boy then moved barefoot out into the hall. There was no sign that his grandfather was even awake. A knock on the

old man's bedroom door drew no response, a detached part of Jonathan's mind told him that there would never be a response.

"Grandfather?" The boy had always called him that, never anything else.

Jonathan could see from where he stood by the door that Grandfather was dead. He almost looked asleep, save that his eyes were slightly open. The boy said nothing further and displayed no outward emotion as he walked slowly to the side of the bed. He felt for the proper place on the man's wrist for a pulse that was not there, the flesh was so very cold. Jonathan stood back a step and just waited quietly for a while as if deciding what next course of action would be logical. Logic always governed his actions, emotion was not in much of his being.

After a few moments the boy drew the covers up and over the old man's head, that was the

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proper thing you did when a person was dead. There were no tears, no cries of anguish. It was not that he did not love his grandfather, he did in his own way. The old man had loved the boy too, also in his own way. The last time Jonathan had cried about anything at all he was two months old and had a bad diaper rash.

On his way into the kitchen Jonathan paused to turn up the thermostat, after all it was still very cold in the house. He sat at the table for some time to think, there were things he must do, things that he did not want to do.

The boy and his grandfather had spoken several times of what would be prudent to do in the event of the old man's demise. Jonathan set about doing those things that were on his mental list, e mails were first.

To the law firm in San Francisco that was on retainer he sent a simple notification of his

grandfather's death and that he would be needing their legal assistance at once. It had been a prearranged procedure, one of the law partners assigned to him would be on a chartered jet before noon.

To the research group at Stanford and Professor Wilde in particular he sent a message explaining why he would be unable to contribute to the gravity wave project until further notice. He had in the past turned down requests that he participate in person in the theoretical work at the university, perhaps in the near future that might now be an option. Professor Wilde had visited Jonathan at his remote home on several occasions, the first visit had been a shock since Wilde hadn't known the age of his internet correspondent. Wilde had been persuaded to keep the boy's age and participation in the research project in close confidence. Child prodigies were often subjected to unwanted spotlights.

Jonathan then logged on to the internet site of the brokerage house that he dealt with. He had earned some considerable money on a software program that greatly compressed data for rapid transmission over regular phone lines. A monthly royalty check invested in rising tech and internet stocks and then sold before they flamed out had amassed a considerable cash account and stock portfolio. The boy had no interest in making or spending money, it was simply a chore necessary to provide the material needs for himself and his grandfather. The old man had no head for finances and had finally just let Jonathan take over managing their money, the boy had earned it all anyway.

In a matter of minutes all of the stocks were sold and the funds (all of them in the boy's name) were ordered transferred to two banks, one in Switzerland and the other in the Cayman Islands,

the passwords and account numbers would exist only in the boy's head. The total amount came to forty seven million and change, no court appointed 'guardian' would ever see a dime of it without Jonathan's willing consent.

The authorities now had to be called so he did.

"911 emergency." The impersonal voice on the phone answered.

"Hello. I need some assistance, my grandfather has died."

"You say that your grandfather has died?"

"Yes ma'am."

"Are you alone in the house?"

"Yes ma'am."

"Are you at twelve eighty Colson Road?" The

911 computer system told the dispatcher that.

"Yes ma'am."

"Give me your name and age, son."

"Jonathan Grant, I'm ten."

"Is there a neighbor close by you can call or go to?"

"No ma'am. I'm all right. I'll wait here if you could please send someone."

"Okay son, there will be an officer there in just a little while."

After the boy hung up and the dispatcher finished routing the call she kept thinking that whoever he was he was a very cold little fish.

"He may as well have been ordering a pizza!" She said to herself.

Jonathan had been raised by his grandfather since he was four. An argument with a fast freight at a rural railroad crossing had taken his parents and grandmother in one swift blur. At four most children were just learning some of how to read and write if they were bright. At four Jonathan was bored with everything except quantum physics and probability theories. At age six he took and aced

his high school equivalency test just to get it out of the way and to keep the local board of education at bay. To try and measure his intelligence would be a waste of time, there were no tests clever enough.

There are those who theorize that mankind is evolving at an ever faster rate and that evolution may not progress in slow, even stages. The leap from Neanderthal to Cro Magnon was very quick in the large view of things. Jonathan might be the next leap, not in appearance but in intellect.

Jonathan Evan Grant was not a "cold little fish."

He was simply the smartest person on the planet. Ever.

Deputy Harmon had been very nice about the

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whole thing. After a quick check of Nathan Grant's body he sat down in the living room with the boy to await the arrival of the EMT's. A walk though of the house had revealed that it was not quite the modest dwelling that it appeared to be from the outside. Everything was top of the line from the leather furnishings to the state of the art electronics. The boy seemed unremarkable in appearance, light brown hair, pale blue eyes, regular features. Perhaps a bit too thin.

"What grade are you in at school?" Harmon thought that some subject other than death might help the boy who seemed altogether too calm about things. Small talk.

"I don't attend school, sir."

"Home schooler, huh?"

"In a way sir, I have my high school diploma. I do some correspondence with Stanford via the internet."

Harmon had to pause for a moment, this boy was not your average ten year old video game addict. A Tale of Two Evolutions

"What sort of computer is that in the other room?" The deputy had done a double take at the oversized PC in a clear homemade plexiglass case.

"It's just a simple parallel processor machine that I put together."

The deputy blinked a couple of times at this, he could barely get his own iMac computer to do his taxes.

"What kind of speed do you get from your modem way out here in the boonies?" Harmon did know that much to ask, barely.

"There's a satellite down link out back, dial up modems are inadequate for large file transfers and streaming data."

"Geez. Isn't that expensive?"

"Yes sir."

The quiet conversation was interrupted by the arrival of the EMT ambulance. Deputy Harmon had the boy wait in the living room as he showed the medics to where the body was. The EMT's went

through the required motions but it was obvious that the old man was indeed entirely dead and that no foul play was in evidence.

"There'll have to be an autopsy but my money is on an aneurysm or heart attack." Mary Whitehorse had been an EMT for eight years and knew her job.

"That's sort of what I thought," Harmon agreed, "now I have to figure out what happens to the boy."

"Family?"

"I don't know yet, I have more questions to ask." Harmon hated this sort of thing, give him a good high speed car chase anytime.

"Would you like to say goodbye to your grandfather before they take him?" Harmon thought it might be the right thing to ask.

"No sir, he's dead."

The deputy started to say something further to the boy but held his tongue. After a moment he

changed the subject.

"Do you have any other family anywhere?"

"My grandfather has an older sister, she's in a rest home in Crescent City."

"Anyone else?"

"No sir."

Harmon then knew he would have to get the child protection assholes out here, this was going to be a bitch of a day.

Beatrice Waterford arrived an hour later, she was with the county child welfare agency and was better suited for some other line of work. After an introduction to the boy by Deputy Harmon the woman did a quick inspection of the home. Then it was time for the questions.

"I'm very sorry about your grandfather, Jonathan." "Thank you ma'am."

"The deputy told me that you have no other family except for an aunt in a nursing home?"

"That's correct, ma'am."

"For the time being I will have to take you to the children's shelter, is that all right with you?" The woman was talking to him like he was a rather dull six year old.

"Might I remain here for now?" He knew better but asked anyway.

"No, I'm sorry but you are just too young."

"Will I be allowed access to my lawyer?" "What?"

"My lawyer, ma'am. Will I be allowed to meet with her today?"

"You really don't need a lawyer, you haven't done anything wrong."

"There will be legal considerations about my future custody, I will need proper representation." Beatrice finally realized that this boy was no dullard. A Tale of Two Evolutions

"For right now I need you to help me pack you some extra clothes and things. Legal matters can wait for later."

"Yes ma'am." Jonathan gave up on further protests, it didn't take a great intellect to see that he was wasting his breath with this person.

The ride to the shelter took the better part of an hour. At the woman's directions Jonathan sat buckled into the back seat of the county vehicle, it was a very quiet trip. The boy sat passively just gazing out at the passing landscape, the woman was content to let the little weirdo alone. He had been allowed only a small travel bag for his clothing, the woman hadn't allowed him to bring along his laptop computer or the binder with his neatly written research notes.

The shelter was what you might expect. Bright and cheery colors couldn't mask what was only a glorified warehouse for adrift juveniles. Smart

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Jonathan was assigned a small bedroom to share with an eight year old native American boy who either would not or could not speak. Jonathan had missed breakfast and lunch without complaint, his lawyer arrived just before dinner which he also missed. There had been some initial unpleasantness between the female lawyer and the male director of the shelter, this was ended with the threat of multiple legal actions if said lawyer was not allowed private access to her client. The firm of Hale and Abrimowitz played hardball and only hired the best, they also charged high fees that they always earned.

"Hello Jonathan." Susan Makepiece was the firm's specialist in family law. She had met the boy over a year ago and had spent an amazed afternoon with him. She knew by now to dump the 'adult to kid' speech pattern.

"Hello ma'am. How are you?"

"You're the one in a bind," she replied with a

smile, "how are you?"

"I'm all right. Grandfather died in his sleep." She thought that she caught just the smallest bit of pain in his last words.

"I know. It is the best of all ways to leave this life."

"Yes ma'am. What occurs next?"

"There will be a hearing. I'll be there with you. A foster home or guardian will have to be arranged, do you have any thoughts about that?"

"There is a Professor Harrison Wilde at Stanford's applied physics facility, he has in the past asked me to work there with him. If you would, contact him and ask if he might have me or if perhaps one of his colleagues might have a spare room."

"I will as soon as I leave here. That's out of this county, it might take some time to set things up. What about your finances?"

"I liquidated my stock portfolio this morning and transferred the funds to offshore accounts, there's a bit over forty seven million. There is still around two hundred thousand in cash in the local bank accounts."

Susan blinked hard before replying.

"You wouldn't consider handling my investments, would you?" She asked with a smile.

"That wouldn't be professional of you." It was as close to humor as the boy ever got.

"True."

"What about the house and our... my things?"

"I will hire a private security firm to watch the place for now. Do you know if your grandfather held the deed clear and free?"

"Yes he did. The taxes are paid, there are no attachments or liens."

"What did you want ...?"

"It is my home, I wish to keep and maintain it. Perhaps some sort of caretaker might be arranged for?"

"I will see to that." Susan Makepiece still had to at times remind herself that she was talking to a ten year old boy.

Harrison Wilde just stared at the e mail message on the computer screen, he had been late in checking it this day. After a moment of inaction the scientist began making some phone calls, the first to his wife.

"Jonathan Grant's grandfather has died." Wilde began.

"Oh, that's too bad. When did it happen?" Jennifer Wilde had wanted to meet the mysterious person that her husband spoke of so often.

"Jonathan said in his e mail that it happened last night. He's going to need someplace to live, someone to act as his guardian."

"But....what do you mean?" She had never been told about his age.

"He's only ten, dear. I never mentioned that to you because he and his grandfather didn't want any publicity, the fewer people who knew his age the better. I guess I should apologize to you about that."

"Good Lord."

"Yes, I agree. The boy has the most brilliant mind I have ever encountered, more than brilliant."

"Does he have any other family?"

"No. I have it in mind to act as his guardian if he is agreeable and if it can be arranged legally, what do you think?"

The woman didn't hesitate, the house was so very empty with her own offspring on their own now. "Of course, it would be very nice to have a young person in the house again."

"He's not your average kid, dear. He's very reserved, very logical in his manner. You feel like you're somewhat retarded when you speak with him although he is never anything but polite and considerate."

"I can adjust. If he is as you say he is then he has a home with us as far as I'm concerned."

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Wilde was about to leave his office when the phone rang.

It was Susan Makepiece.

Jonathan was finding the children's shelter exceedingly tiresome by the time that breakfast was over. The place was tiresome even before that. Jonathan's roommate did prove to have working vocal cords and proceeded to cry and whimper through a good portion of the night, that and his own empty stomach did nothing for a good night's rest.

At present he was being interviewed by someone from the local schools, they seemed eager for another warm body that they could collect Federal and State funds for.

"What grade level were you in?" Alice Miller

figured perhaps fifth grade before the boy had even spoke.

"I have my high school diploma, ma'am."

"Indeed. And where might this document be?" She wasn't buying it.

"It's at my house at the present."

"For now you will attend fifth grade at Fremont School during the day until a foster home can be found for you."

"Ma'am, pardon me but to what purpose?"

"Until, and if, your diploma is produced you must attend school, that's the law."

"We could perhaps fetch it today if..."

"I don't have the time," she interrupted, "besides you need something to occupy your days for the present."

End of interview. Ninety minutes later Jonathan found himself enrolled, introduced, and seated in Ms. Zamora's fifth grade class. He would have felt more at ease if he had been dropped into the midst of a herd of wildebeest. When Susan Makepiece later arrived at the shelter it became rather exciting for a bit when she learned that her client wasn't even there.

Jonathan had been placed in an 'advanced' class, he seemed brighter and more mature than the average. In this case 'advanced' meant that most of the class had progressed beyond counting on their fingers and eating paste. The teacher had just written several mathematics problems on the board involving the simple multiplication of large numbers, she then turned for her first victim. She'd try the new boy.

"Jonathan, can you do any of these multiplication problems?"

"Yes ma'am." Some of the other kids snickered at his use of the word "ma'am."

"Then please come up here and do so."

Jonathan took the dusty piece of chalk from

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the woman and in just the time it took to write each answer did all four problems. The fact that he didn't bother with the tedious process of producing columns of numbers to arrive at his answer caused all of the snickering to cease and rather vexed the teacher. She had to consult her work guide to see that all of the answers were indeed correct. In truth she couldn't balance her own checkbook without a major struggle.

"That's uh...very good Jonathan. Now would you please write out all of the work involved in arriving at the answer."

"Whatever for, ma'am?"

"So that the class can see how it is done."

"Yes ma'am." It seemed an absurd waste of time to the boy but he did as she asked.

"That's fine, Jonathan. What sort of math problems were you doing in your last class? Show us on the board."

"Yes ma'am." The boy neatly erased the

simple multiplication problems and launched into a straightforward explanation of the calculations needed to explain the nature and effects of gravity. His notes on the board contained few symbols that the teacher recognized and none that the students did. He could have gone on for hours with his simplified explanations but was finally cut short by the dumbfounded woman.

"That's fine, Jonathan. Thank you for that 'interesting' talk." She hadn't understood a word of it. The classroom was very quiet as he walked back to his desk. Later in the day in the history segment she asked Jonathan who were the first people to arrive in America. His detailed account of the four leading theories on the subject lasted the rest of the hour. At this point she stopped calling on him at all. He hadn't been showing off as you might expect, he was simply trying to do as the woman asked, no matter that he regarded it all as a complete waste of his time.

That evening just after dinner at the shelter his lawyer bulled her way in for another sit down talk. Bulled is not precisely the right word, a small envelope was discretely passed to the supervisor. Money talks, as the saying goes and the lawyer would now be getting easy access and a heads up phone call from the supervisor as events occurred.

"How was your day?" She began.

"Tedious." Jonathan answered with just a faint tinge of disgust.

"Did you have lunch and everything?"

"Yes ma'am. I was given a voucher to pay for the meal at school."

"How was the food?"

"I only ate the portions that I could identify. So far there have been no adverse effects."

Ms. Makepiece managed to suppress her laughter but not her smile.

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"Okay, to get down to business the initial hearing will be day after tomorrow. Professor Wilde and his wife will be there, they have offered you a home with them. They were very positive about wanting you to live with them."

Jonathan nodded in understanding. "If you could, tell them that I appreciate what they are doing and that I shall endeavor not to be a bother."

"I will. Is there anything you need in the meantime?"

"No. Are the arrangements for Grandfather's cremation complete?"

"Yes. Are you certain about not wanting a service of some sort?"

"Yes. We weren't very sociable with people after my parents and grandmother died. There would be just myself to attend any service, besides Grandfather didn't want one. He did request that his ashes be scattered in the ocean at the beach we often went to when the weather was warm."

"He liked it there, did he?"

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"Yes. We both did. It was always deserted and a good place to think and relax." The boy paused for a moment before asking the next question. "Did the authorities determine the cause of death?"

"Yes. It was a massive blood clot that moved to his heart, it would have been very quick for him." "Thank you."

At the morning recess the next day Jonathan was introduced to life on a lower plane of existence. Marcus Blodgett was the official school thug and ran the local protection racket on the playground. Jonathan was sitting off by himself when Marcus and two of his suck ups came to visit.

"Dickbreath! Give it up!" Marcus wasn't very much on formalities.

"I beg your pardon?" Jonathan regarded the trio as if they might be some sort of alien life forms.

"Listen to that, he begs our pardon!" This seemed greatly amusing to all three of the

immature mafia. "Hand over your dough and you get a pain free day!"

That was clear enough.

"I haven't any money, all I have is a voucher for lunch that you're very welcome to." This was not the answer they were hoping for.

"Grab 'em! He gets the treatment!" Marcus looked around quickly for any sign of a teacher, as usual they were all off having a smoke or perhaps a Valium.

The 'treatment' consisted of frog marching the new boy into the boy's rest room and then pounding on him for a time. The festivities ended with Jonathan bloodied and stripped naked on the grimy tile floor of one of the toilet stalls, his clothes then strewn about the playground. One of the more civilized boys in the school finally came upon him and went off to search for a teacher. The teacher knew the routine and rounded up the wayward articles of clothing before entering the rest room. Jonathan was sitting on the floor up against the wall with his knees drawn up, a bloody nose was in full bloom.

"Are you all right?" Vice Principal Sarah Watts asked.

"I have been beaten bloody and I'm naked, other than that everything is splendid." The woman helped him to stand and then assisted him back into his clothes. A session with cold water and paper towels at one of the sinks soon had the bloody nose mostly under control.

"Who did this to you?"

"I don't know their names but I would suspect that you might."

She did know but the recent great strides in law and modern education made it almost impossible for her to do anything about them.

A trip to the nurse's office was next and then a phone call to the shelter.

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Susan Makepiece was at the shelter five minutes before Jonathan was returned there early from school.

"Jonathan! What happened to you?" Ms. Makepiece was ready to sue someone. The boy's faded green sweatshirt had blood spattered down the front, some cotton was still in the boy's left nostril.

"I was set upon by hooligans." He seemed very calm and collected, but then he always did.

"At school?"

"Yes. The hooligans seem to have some sort of permanent position there, if I had possessed any funds to give them I would have fared better." The female lawyer just glared at the social worker and the shelter supervisor, they got the message and moved off to other tasks. Jonathan and his legal help found a quiet place in one corner of the common room. The boy had to first endure a hug

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and then a kiss to the top of his head.

"The hearing is tomorrow, you won't have to go back to that school. I went out to your house and found your diploma."

"Thank you for that."

"The Wilde's are arriving later this evening, it may be too late for them to come here tonight." Jonathan nodded but did not immediately reply. His nose hurt, his ribs hurt, his head hurt. He was getting a black eye. "Thank you again for all that you are doing."

"Listen kiddo, you pay good money for what I'm doing. I should be thanking you."

"What will occur at the hearing?"

"I will present a petition for custody on behalf of the Wilde's. The judge will ask everyone questions, including you. It will take maybe an hour or two. Some of the other people from Stanford will be there also, it seems that whatever the heck you do with them makes them think rather highly of you."

This last bit of information actually caused the boy to raise his eyebrows just a little.

"That's very good of them," he finally said, "will there be questions about my financial situation?"

"Some. I've drawn up a proposal to have your property and local cash assets put in trust with my firm managing things, it should be acceptable to the judge, if not we can be flexible about it. It will take some time, your Grandfather didn't leave a will."

"And the offshore accounts?"

"What sort of paper records exist on them?" She asked.

"None, now."

"I cannot ethically advise you to lie, but if no one knows about the accounts then there will be no questions about them. You are not required to volunteer information, just to tell the truth. You aren't on trial."

"I see. And the legality of the accounts?" "As long as you pay the taxes due on the

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income they are perfectly legal. We have some excellent tax attorneys in the firm who can help you with that."

"How soon might I expect to be able to be with the Wilde's?"

"Perhaps right after the hearing if the judge is favorably impressed. With all of those PhD's sitting behind you in the courtroom I think he might just be impressed."

"I would like to take Grandfather's ashes to... our beach."

"There will be time made for that, all that you need. Is there anything right now you want?"

"Yes."

"Name it."

"Tylenol and some sleep."

Judge Andrew Monroe was an advocate of the letter of the law, this is not to say that common

sense had no place in his courtroom. It was his habit to have a private conversation in chambers with the minor in question before his court convened. Jonathan was as close to nervous as he ever got when the large black man asked him to have a seat.

"What do you want?" Monroe began. "Sir?"

"What do you want me to do today?"

"Professor Wilde has been so kind as to offer me a home. I would very much like to accept his generous offer."

"Why?" Monroe had a talent for directness.

"We have a mutual interest in the field of physics that he specializes in. Stanford is a highly respected university. Professor Wilde is a good person. I need a home." Jonathan could also come directly to the point.

"I am told that you are somewhat above the norm in the intelligence department?"

"Yes sir."

"How far above?"

"That is a difficult question, sir. The few tests that I have taken had upper limits that I exceeded."

"And if should I place you here with a local family for a more normal life?"

"You would be doing me a great disservice, sir."

The hearing was somewhat lopsided. For the county there was just one child welfare case worker and the department's legal representative. On Jonathan's side of the courtroom were more physics PhD's than normally resided in the entire county. Everyone had a say but it was just a formality.

Jonathan had a new home.

All that remained for now was Grandfather's wish.

"Pull over just up there, by the large rock." There were four people in the rented Taurus. The Wilde's, Susan Makepiece and Jonathan. The boy held a small lacquered metal box on his lap, it was all that remained of his grandfather.

"It's a bit of a hike. If you want to you can remain here." The boy's words fell on deaf ears, the adults were mentally prepared for an assault on Everest if need be.

"We'll come with you Jonathan, if we may?" Professor Wilde replied.

"You may, sir. Thank you."

It was almost a full mile to the small and remote beach, the boy's grandfather had discovered it when he was not much older than Jonathan. There was a small cove sheltered from the raw power of the Pacific, clean sand without footprints or litter. The adults held back at the edge of the beach as the boy proceeded on ahead, no one thought it out of place as Jonathan shed his clothes without a thought and waded out into the cold surf, the small metal container held close to his thin chest.

"Goodbye Grandfather."

Did he shed a tear? No one would ever know.

Chapter Two A New Life

It had taken a while for the Applied Physics Department to adjust to the fact that Jonathan Evan Grant was only ten years old. The boy had been responsible for almost every recent step forward that the Gravity Wave Team had made, he had been until now been only an anonymous correspondent on the vast internet.

Life with the Wilde's had been a big transition, both for the adults and the boy. Small things had to be sorted out. A room of his own, his much modified and advanced PC installed and linked to the net with a wide band connection. Clothes and small personal items to be put away, books and sheaves of notes for the bookcase. Jennifer Wilde had reverted to mother mode, she had another young person to look after now. In truth the boy

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didn't need much looking after, if given a choice he would still be in his own home and looking out for himself.

He was assigned household chores as was proper for his age. Take out the trash every evening, tidy your room, leaves to be raked on Saturdays during the fall. Do whatever was asked. It was all proper and Jonathan knew it, he was in a good home and he owed his share of household duties.

"You need a bike." Wilde said as the three of them sat at the breakfast table.

"Sir?"

"A bike. To get around on campus, also between here and there." The comfortable four bedroom home was only about a mile from the sprawling campus, it had been purchased long before the real estate market lost it's sanity.

"I'm afraid that I've never used one, sir."

"You don't know how to ride a bicycle?" "No sir. I never had a need for one." "Well, you do now. Lessons will be included." "Where might I purchase a bicycle, sir?"

"There's a good shop at the mall a few miles from here, there are three bikes out in the garage but I'm afraid they're all too big for you."

"I will need to establish a local bank account, sir. My available funds are in Switzerland and the Cayman's." Jonathan had only been with the Wilde's for three days now but it was readily apparent that they were people to be trusted.

"Trot that by me again, son." Wilde exchanged looks with his wife at this revelation.

"I have money that I earned from the sale of a software program and from subsequent stock investments. It's all quite legal."

"May I pry and ask how much?"

"Yes sir. Forty seven million, one hundred and fifty four thousand dollars. Not counting whatever interest it has earned in the last week or so." Wilde nearly choked on his shredded wheat, his wife spilled her coffee.

"Good God!" Wilde gasped.

"Nothing about this came up at the hearing." Jennifer Wilde said, almost in a whisper.

"No one asked, ma'am. Ms. Makepiece advised me that I wasn't obligated to volunteer the information."

"Then I guess you can afford to buy your own bike." Harrison Wilde concluded.

"Yes sir. I can pay for all of my needs, if you ever have use for any of the money it is yours for the asking."

Wilde regarded the small boy for a moment, there was so very much more to him than was readily apparent, many layers.

"That is more than kind of you, Jonathan. If there is ever such a need then you will be the first person to know."

A checking account was established the next day in Jonathan's name. The new accounts person at the

bank had managed to remain calm when the boy used her computer terminal to complete the transfer of one hundred thousand dollars into his account. Printed checks would be along in a few days.

A massive I.Q. Is no substitute for physical coordination, reflexes must be learned, balancing on two wheels takes some practice. Jonathan managed a wobbly success after three spills on the wide grassy area of the campus lacrosse field. By the end of the day he was competent enough for slow trips on paved surfaces (with a helmet).

After a week a first visit to the lab where Professor Wilde labored was finally arranged. Wilde had wanted the boy to settle in at his new home first and to be at ease with his radically altered life before wading into the complexities of the physics lab. Introductions were made, Jonathan had already met several of the people

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when they were at the custody hearing. The boy was especially interested in the well equipped machine shop and electronics lab, he had none of the complex mechanical skills needed for fabricating experimental devices, now he would be able to convert his ideas into actual working models.

He had a number of ideas.

Professor Wilde had insisted that Jonathan enroll as a freshman at the university, the boy needed to interact more with people of diverse backgrounds and temperaments. Most of the courses he could simply challenge and take the final exams for full credit, a few he would have to actually attend. Jonathan thought it was a waste of valuable time for the most part, on the other hand he was certainly intelligent enough to realize that he was indeed lacking in some of the social skills. He would attend the classes more to please Wilde than anything else, he did owe the man and his

wife. The new term began in just three weeks.

Every Monday there was a staff meeting at the lab to discuss anything and everything related to the gravity research program. Jonathan attended for the first time, it was much better than the awkward e mail interactions of the past.

"The helium cooling coils keep generating gas pockets that cause cavitation at the pump." John Aubrey was at a loss about what to do, without the needed super cooling the gravity wave detector was just so much scrap metal.

Jonathan waited until everyone had offered their opinions before raising his hand to speak.

"Yes, Jonathan." Aubrey had to smile a little at the small person at the far end of the table who was requesting to speak.

"Sir, have you considered instead of cooling coils simply using an immersion tank to enclose the entire unit?"

No one had. It was so obvious now that the boy

had pointed it out.

In the days that followed everyone would learn to turn with total attention and listen to everything that the boy had to offer.

Jonathan was holding back his opinion of the entire gravity wave project. Now that he had full access to all of the research he concluded that the work was destined for a dead end. How do you properly tell a good man and good people that they were wasting their time and had been for several years?

Following the conditions of the custody agreement the boy was required to have a full medical, dental and psychological exam. The poking, prodding and gagging found nothing amiss but the session with the psychologist left the woman rethinking a number of the current theories on intelligence.

"I gave you the toughest intelligence test that exists, you are off the scale on the high side. How far off scale I have no idea."

"Is it important, ma'am?"

"Only to me. I suppose that after some level is reached the notion of I.Q. points becomes meaningless. Is there anything in the world that you do not understand?"

"People, ma'am."

"Then we have at least one thing in common."

Jonathan had been quietly working on something unrelated to the gravity project that would very soon overshadow the basic research going on at the lab. Fred Withers was the resident machinist and head tinkerer. The man was eligible to retire but being inactive was not in his makeup. When Jonathan came to him with a sheaf of neatly drawn plans the machinist was down on all fours trying to find a drill bit that he had dropped.

"Pardon me, sir."

"Huh, what?" Fred turned around and stood, then he had to look down a bit.

"Hi there. You're Jonathan, aren't you? I'm Fred Withers, call me Fred."

"Pleased to meet you, sir." Jonathan offered his hand and shook with the tall gangly black man.

"What can I do for you?"

"I have a small device I need some assistance in constructing."

"A plutonium powered skate board?"

"No sir."

Fred's attempt at humor had failed entirely, most

(all) attempts did with the boy.

"What is it then?"

"Well sir, it isn't directly related to the project here but it should be fairly simple to construct." Jonathan spread open his drawings on the cluttered workbench, Fred then started scratching his chin. When Fred scratched his chin it meant he was very, very interested.

"What do you call it?"

"I suppose a background inertia tap, for lack of a better name."

"Background inertia?" Fred was no PhD, he worked with his hands rather than at trying to unscrew the unscrewable.

"Yes sir. The universe is in motion, there is unlimited inertia in all of that movement. If my theory is correct than there may be a way to tap into that inertia potential."

"If you say so. What kind of metal is this plate dingus made of?" Fred was peering at a component that looked like a dinner plate made of sandwiched metal sheets.

"Layered gold and soft iron, sir. I have funds to purchase any materials you need, this isn't actually related to the project here. If you haven't the time to work on it..."

"I'll make time. We'll need to buy the gold, the

bean counters here will never go for that. How much will it take?"

"I calculate about eight ounces, sir?"

"That's about twenty five hundred bucks, son."

"That's not a problem, sir. It should be as pure as we can find. Perhaps a small ingot or bar rather than alloyed coins?"

"I know a precious metals dealer if you have the cash?"

"I will need to go to the bank unless the dealer will accept a check."

"Get the cash, they don't care too much for checks that might bounce."

"Yes sir."

"You've got that kind of money?" Fred wasn't quite swallowing all of this just yet.

"Yes sir, I have my own account."

"Okay then, it's your dime."

"There is one other matter, sir."

"What's that?"

"For now could you keep this 'project'

confidential, between the two of us?"

"How come?"

"If this works as I think it should it will put every oil company and power producing concern out of business. All of them. They might not take kindly to such a development. There are entire countries who would be displeased by such a development and very displeased with the developers."

Fred didn't need a PhD to discern the implications in that. This could turn out to be a very dangerous experiment, in many ways. Jonathan knew the dangers also, he was after all, smart. But was it smart to even undertake such an experiment? It would change the world for the better but it might be a rough road between times. Mankind very much needed what Jonathan had in mind but the transition would cause massive upheavals. In the long run it would be a small price to pay for a much cleaner planet and unlimited

power.

If the device ever saw the light of day.

Jonathan made a rather wobbly bike trip to the local bank the next day, the clerk wasn't about to give five thousand dollars in cash to a kid, even if he did say he had an account. The new accounts person was by luck coming back from her lunch break when she spotted the boy at the counter.

"Hello Jonathan, doing some banking today?"

"Attempting to, ma'am. There seems to be a problem with my making a cash withdrawal."

"He wants five thousand in cash, Ms. Parks." The teller added.

"He has the funds, go ahead and cash his check on my say so."

Jonathan got his cash. Ms. Parks gave the boy and his bike a ride home, several people had noticed the large stack of twenty's going into his small backpack. It would not do for one of her better customers to be robbed leaving the bank. So far the boy hadn't mentioned his odd project to Professor Wilde or anyone else, save for Fred.

That afternoon found Fred and the boy once more in the workshop.

"Here's the money for the gold, sir. I brought more than you suggested, you might have to get a bar or ingot larger than we need and there may be other incidental expenses."

"Jesus, kid! How much is this?" Fred's eyes enlarged a good deal when the boy handed over the thick stack of twenties.

"Five thousand, sir."

"Criminy, I may just head for Vegas with this!" "Vegas, sir?"

"Never mind. You sure are the trusting type."

"I trust you, sir." Jonathan did trust the man, he hadn't dealt with a large number of people in his life but Fred did not seem a person to betray a trust.

Fred didn't head for Vegas. He decided to do

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most of the work in his own small workshop in his garage at home. He didn't understand just what the hell he would be building but the plans were very detailed. Good plans are all that any decent machinist needs. It would probably take him the better part of two weeks to complete the odd looking gizmo in his spare time, exactly what the boy had estimated.

Turning the gold bar into sheet metal would prove the most difficult task. Eventually Fred took the bar to a steel fabrication company in San Jose. A considerable audience watched as the gold made repeated passes between the heavy rollers. Gold is the easiest of metals to work with if you have the right tools, in a short time Fred had his pricey sheet metal.

Home life for Jonathan settled into a more

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comfortable routine. His new 'mother' insisted on taking him on a shopping expedition to enlarge his simple wardrobe. The mall ordeal was endured as one might go to a root canal appointment, something needed but painful. To the boy clothing was merely something to ward off the cold or to cover one's nakedness if the situation required it, fashion held no interest whatsoever. Albert Einstein was often seen in baggy pants and a sweatshirt, perhaps he held the same views on dress that Jonathan did.

There were two other boys about Jonathan's age who lived on the same street. Both boys promptly decided that the new kid was a total geek and a certifiable weirdo, they dropped all attempts at making friends. If Jonathan was disappointed by the other two boy's reactions to him it was impossible to tell. Did he ever get lonely?

Jonathan managed to collide with a car while

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riding his bicycle to the lab. The car was parked on the street at the time, a loud little collection of fur and teeth had caused him to swerve into it. His bicycle skills were still a bit iffy at this point. The boy had dutifully gone up to the house where the car was parked and informed the owner of the scratch he had made in the side of the new Lexus. The man was more concerned about the abrasion on the boy's knee and his torn jeans and had insisted on calling his mother. Jennifer Wilde arrived minutes later in a total dither and then breathed a sigh of relief that it was only a skinned knee. She had seen plenty of skinned knees in her earlier days as a parent. Most kids would have shed a tear or two from the painful road rash, Jonathan had not.

Jennifer Wilde loved the piano, she had a small and much used baby grand in the living room. Her talents were modest but anyone who has ever played would know the joy she got from the music.

One evening she had asked the boy if he might be interested in piano lessons.

"No ma'am." The boy wasn't much for beating about the bush.

"It makes for a well rounded person to be able to play some sort of musical instrument." She replied, perhaps seeing the battle was already lost.

"I can already play the piano, ma'am." This caused the woman to halt all conversation for a moment, finally she found her voice.

"But.. In your home..there was no piano."

"No ma'am, we finally gave it away."

"But why?"

"It seemed to take too much time away from matters that interested me more, it went unused and Grandfather knew some people who needed one."

"But... Could you play something for me now, just to humor me?"

"Of course."

Jonathan followed the woman out of his neat and

tidy room and into the living room, the Professor was off in his small study trying to sort out the lab's budget for the coming year.

"I have some sheet music if...." "That won't be necessary, ma'am."

The music that his wife could not possibly be playing immediately brought the Professor from his study, it brought tears to Jennifer Wilde's eyes. She thought it might be something of Chopin that the boy was playing, when he finished the sonata she found enough of her voice to ask the name of the piece.

"It doesn't actually have a title, ma'am." Of course it hadn't been Chopin, the boy had composed the delicate piece when he was six years old.

To please the woman Jonathan would play something every evening, he had forgotten that it was a relaxing and pleasant thing to do, even if it

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was a waste of time. The hugs from the woman were rather pleasant also, he got one after every evening recital. All of life is not intellect.

Fred had the mechanical components of the 'thing' finished, the boy would need to work with him on the electronics and the oddly shaped square 'coils' of wire. It all sat under a piece of black sheet plastic at the back of the university workshop.

"The plate will need a load, a braking force on it's shaft." Jonathan explained.

"Such as?" Fred at times had doubts about the project but never when the boy was explaining things.

"A small generator would be ideal, without the attached motor."

"I can pick up a used Honda five kilowatt unit down at my cousin's rental place. There's enough left out of your five k to pay for it with some to spare."

Jonathan missed the Monday morning meeting at the lab, he had to attend his first class at the university. Interviews with most of the freshman class instructors had already taken place, tests were taken, credits given. That left only the two classes, the one that the female professor had refused to allow the boy to challenge. Art in The Twentieth Century. It was supposed to round out a freshman's rather dull first year. There would also be a physical education course to attend, what that would involve the boy chose not to contemplate.

Jonathan brought along some of his research notes to review, the art class would only need about one percent of his attention. Not to say that the class hadn't paid some attention to Jonathan. A short and skinny ten year old boy in a class of almost adults tended to draw some attention. Unwanted attention.

The art professor was a rarity on campus, she taught all of her own classes in person.

"Mister Grant, are my remarks boring you?" Professor Winifred Salk would have made an excellent nineteenth century schoolmarm. Jonathan looked up from his incomprehensible research notes and then very properly stood to reply.

"No ma'am."

"I can see that you are busy with more important matters, could you possibly take the time to relate to the class what I have been speaking about for the last half hour?"

Of course he could and did. She finally stopped him after about ten minutes, his impassive and flawlessly polite tone irritated her the most. Several of the other students almost had seizures trying to suppress their amusement. Jonathan at this

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moment became the main reason for the good attendance by the rest of the class, everyone would always pray that the prissy instructor would make the mistake of again calling on the boy. She would call on him often, she would never seem to learn.

It was inevitable that Jonathan would eventually come to the attention of the media. The campus newspaper was the first to seek him out, fortunately he was at the lab at the time and the student reporter was denied admission. Dangerous high voltages, lasers, that sort of thing. Try again some other time. They did try again, so did one of the major television networks.

"Jonathan doesn't do interviews." Jennifer Wilde had turned them away at the door, of course that didn't stop them from doing a story anyway. Film footage of the boy was taken at a distance, interviews with students in his art class. Repeated refusals by the lab's staff to comment completed the ten minute segment that would eventually air

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nationwide. Who was this mystery boy?

Chapter Three Everything In A Cocked Hat

Fred had finally finished the shaft connection between the 'thing' and the dissected Honda generator. All of the insane coil windings were finished and sealed in epoxy filled flat slabs on either side of the gold and iron plate. The simple control circuits were complete. It was time to fish or cut bait, as the saying goes.

The lab was deserted, Jonathan had quietly left the Wilde's asleep in their bedroom, the night time bike ride to the lab had been a bit of an ordeal for the boy but he made it in one piece. Fred felt more than a little guilty about this secrecy, then he remembered what could occur if this nutty looking device performed as advertised.

"Please stand out of line with the plate's plane

of rotation." Jonathan advised.

"Say what?"

"If it over spins it may disintegrate with some considerable force."

In other words it might explode like a land mine if the rpm's went beyond what the soft metals could stand.

"Okay, no problem." Fred could see the danger and moved over to where the boy stood, all that remained was to turn the field energizing power control knob. Ever so slightly.

"Shouldn't we have a countdown or something?" Fred asked, only half kidding. The boy's impassive stare told the man that he had just asked a really stupid question.

The field power meter twitched and moved off of it's peg. Nothing happened. Jonathan turned the knob another fraction and the gold and iron Smart

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plate started to rotate on it's shaft. Slowly at first, a little more added field power and then the generator was putting out it's full five thousand watts. The three electric heaters connected to the generator's outlets were glowing a cherry red. The amount of power needed to maintain the energizing field was about what was needed to power the average flashlight.

"It seems to be working properly." Jonathan's talent for understatement was enormous. Fred was a little disappointed that it didn't even make any noise other than the low whir of the generator's rotor.

The device was drawing power from the movement of the universe itself, unlimited power free for the taking. Power that did not pollute, power that would cost only what was needed to build and maintain a simple generator. Power that could not be charged a price for. Any shade tree mechanic with a few ounces of gold could build the

device (any good conductor could be made to work, gold was the most efficient). Oil would only be needed as a lubricant, uranium and plutonium would be useful only for weapons and toxic paperweights. Fish could swim and spawn without massive dams to hinder their progress. Environmental activists would have to find other things to complain about.

Certain interests would gladly kill to prevent all of it.

Jonathan turned the power knob back to the left, the heaters lost their red glow and cooled. The generator slowed to a complete stop.

"Mister Withers, sir. There are vested interests in this country and for that matter in all countries who will be financially ruined by this device."

"I know kid, what do we do?"

"I must confess that I am at a loss for the

present."

"Let's leave it alone for a while," Fred finally said, "I'll shove it over in the corner and cover it up. Tomorrow I'll take it apart and stash the parts in my garage. Is that okay?"

The boy did not protest, a great intelligence cannot change what is reality, at least not immediately. It was nearing dawn when Jonathan silently slipped back into the Wilde's home, into his new home. He dozed off in art class that day, much to Professor Salk's unrestrained glee. Tomorrow would be the first day of the twice a week physical education class, some inquiry indicated that it had to do with swimming, lifesaving, CPR and that sort of nonsense.

"Is there anyone here who cannot swim at all?" The all too fit looking male instructor also had a very fit set of lungs. Two people in the mixed

sexes class raised their hands, Jonathan did not. The boy's grandfather had taught him to swim by tossing him into the bone chilling waters of the Pacific Ocean, water temperatures that the California tourist brochures always failed to mention.

Jennifer Wilde had purchased the boy his first swim trunks, something never bothered with on the deserted beach. The blue trunks felt baggy and uncomfortable. Jonathan felt like a bit of an ass, everyone else in the class was about three times his size, even the females. Naturally the boy was called upon to be the 'drowning victim,' he was small and easy to rescue unless instructed to be difficult to rescue.

The instructor asked Jonathan to 'panic' and behave as a drowning victim might, the boy took the directions to heart. During the course of the 'rescue' the instructor very nearly drowned himself

as Jonathan managed to wrap himself around the man's neck. Some colorful if somewhat soggy language ensued before the instructor got the boy to the side of the pool.

Jonathan wasn't bothered again with taking part in any further 'demonstrations.' In fact he was never called on again. Smart doesn't always involve using just the brain.

Evening found Jonathan knocking politely on the open door to Professor Wilde's study, it was time for a most difficult talk.

"Come in, son. What's on your mind?"

"May I speak with you for a while, sir?"

"Of course, pull up a chair."

Jonathan moved the computer chair over next to the man's cluttered desk and sat quietly for a moment. Where to begin? "There are two matters, sir. The first concerns the future of the gravity wave research."

"What do you mean?" Wilde could see that the normally inscrutable boy was troubled, even so you had to pay close attention to notice it.

"I very much fear that all that has been accomplished and will ever be accomplished is simply a more refined way to measure a natural force. I don't see any real progress to be made in understanding or explaining gravity. I hope that you do not think poorly of me for saying this, you have been so much more than kind to me."

Wilde just sighed deeply and pushed his chair back a little from the desk.

"I don't think poorly of you. I would think poorly of you if you weren't honest about your beliefs. In truth you are not the first to voice such an opinion, perhaps I am beginning to think along similar lines. I have been giving more and more thought to just ending the project and writing a final report."

"Then I have not given offense?" Jonathan asked with a hint of relief in his voice.

"No son, in fact I feel like you have given me the impetus to do what I should."

The boy sat silent for another moment before speaking again.

"There is another important matter, it may seem rather self serving in light of my previous words."

"Go ahead, speak you mind."

"I have been working on another line of research, one that would seem to have some very practical potential and in fact would be most beneficial."

The boy had every brain cell of Wilde's attention at this point.

"Go on."

"I have dubbed it the background inertial tap."

"You've already lost me son, explain."

Jonathan did explain, for almost a half hour before the man interrupted him.

"Son, the whole idea....it just..." The man simply could not grasp the theory and principles that the boy had tried to explain.

"I must confess sir, it does seem rather unlikely."

"What sort of work have you done, have you put it down on paper?"

"Mister Withers at the lab machine shop has been helping me."

"To do what?"

"We, or rather mostly Mister Withers, have built a working demonstration device, an electrical generator in fact."

"You cannot be serious?" Wilde wondered if the boy had snapped completely.

"I am serious, sir. The components are presently disassembled at Mister Withers home, in his garage."

"Why?"

"It is a source of practically free power, without pollution. I believe you know the potential dangers to anyone possessing such a device. Any country or business concern dependent on petroleum, nuclear energy or coal as a source of revenue would fall upon very hard times."

Wilde could indeed see the dangers, first he needed to see the device, if it existed.

"Let's take a drive over to Fred's place, I need to see this with my own eyes. Don't take offense"

"I don't take offense sir. Mister Withers has been very helpful in this, he understands the need for secrecy at this point."

It was almost eight in the evening, Wilde gave Fred Withers a call first.

"Sure, doc. Come on over. What's the occasion?"

"Jonathan says you have been assisting him

on a 'project.'"

"Oh. He told you, did he?"

"Yes, I'm having a lot of trouble believing it." "Then get your fanny over here, bring the boy too because I sure don't understand how it works." "Then there is an actual working device?" "There is indeed, doc. I'll start bolting the dingus back together."

Jennifer Wilde came along too, the Professor knew better than to argue with her. The drive took about twenty minutes, Fred lived on 'the other side of the tracks' so to speak. The machinist's house was small and well maintained, he had lived alone since his wife died. The Professor knew the way by heart, poker night at Fred's was a monthly tradition.

"Come on in folks, hi Jonathan."

"Hello sir." Jonathan almost managed a smile for the man.

"I apologize for the hour, Fred." Wilde said.

"No problem, come on out to the garage, I

almost have it back together."

"What the hell...?" Wilde could tell that the 'thing' was indeed very real and about the size of a large television. But what was he indeed looking at?

"Kid, you hook up the control wiring while I finish connecting the shaft coupling."

"Yes sir," Jonathan replied, "what about an electrical load for the generator?"

"I have that figured out, I'll plug in the house." "Sir?"

"I have a generator that I can kick in when there's a rolling blackout, we'll just substitute this gizmo."

"I see sir. Perhaps you could keep this device connected and dispense with paying your electric bill?"

"I thought about that, people might get suspicious."

Wilde listened to this exchange almost slack jawed,

there was no trickery in what was occurring here.

"All set?" Fred asked the boy.

"Yes sir, except we need a battery for the field generator."

"Shit!" Fred dashed back into the house in search of his battery powered lantern. Wilde and his wife could only stand in disbelief at what was occurring. In a moment the machinist was back with the six volt lantern battery. Clip on the two wires, all set.

"Fire it up kid."

Jonathan did just that. As before the 'plate' started to spin as did the attached generator. Fred threw the proper circuit breakers and his home was then lit and alive, free from the electric utility company. Professor Wilde almost wept with joy, then the enormity of what the odd looking device really was finally sank in.

"This will change the world." Wilde said after some time.

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"If the world ever sees it sir," Jonathan replied, "we need to talk."

"Indeed, all of us." Wilde was just beginning to see what the boy already could.

Fred's small kitchen table was a good place to talk and have a beer, even Jennifer had one. Jonathan was served a Coke.

"May I taste that, sir?" Jonathan pointed at Wilde's bottle of suds.

The man regarded the boy for a moment and then handed him the cold bottle.

"Just a taste," Wilde said.

"Yes sir, I was just curious."

The boy's reaction to his first taste of beer was the most emotion that any of the adult's had ever observed, an actual grimace.

"Perhaps it is an acquired taste." Jonathan gave the bottle back, his curiosity satisfied all too well.

"You would do well not to acquire the taste.

Now what do we do about that thing out in the garage?" Wilde's question ended any humor at the table.

"Any paper submitted through normal academic channels can be made to disappear, so can people. That includes all of us." Wilde began.

"Might I suggest some sort of public demonstration that cannot be...officially discounted? That and a simultaneous worldwide internet distribution of the principles involved and plans for building a working device." Jonathan said next.

"What kind of "public demonstration?" Wilde asked.

"Perhaps a UFO landing at a televised major league baseball game or perhaps at a football game."

"A UFO?" Fred asked with a grin.

"Yes sir. The device in the garage translates background inertia into circular motion, I believe

that a tubular shaped device based on the same principles can provide thrust along it's long axis."

"Thrust? Like a jet?" Fred asked.

"Yes sir, but without any of a jet's blast and heat. Silent."

"Are you serious, Jonathan?" Wilde's wife asked.

"Yes ma'am. It could propel any sort of vehicle, aircraft and spacecraft would be the most obvious applications."

"Sweet Jesus." Wilde whispered. A trip to the moon would take a few hours, Mars perhaps a few days at a steady one gravity of thrust. The stars themselves might be obtainable one day.

"So where do we pick up a used UFO?" Fred asked.

"We build our own, sir. Construction needn't be very sophisticated and weight or power consumption needn't be factors. Perhaps plywood and fiberglass over a steel tubing frame might do." Jonathan was as always completely serious.

"Son, now how do we build a flying saucer or whatever without it attracting all of the attention that there is?" Professor Wilde was still having trouble adjusting to all of this.

"A simple cover story, sir. We rent a hanger or some sort of industrial building and tell people that we are building a prop for a film. A simple lie always works the best."

"Assuming that your thrust device works and we succeed in building this fake UFO, what if the Air Force takes offense and shoots it down?"

"We paint very large American flags on it and the word 'Experimental Stanford University Background Inertia Tap Vehicle'. Something like that. Avoiding military installations would also be wise. Everything has some sort of risk."

"This would cost a lot of money." Wilde's protests were starting to fade.

"I have a lot of money, sir. Enough and then some."

"A patent on this thing of yours could make you the richest person on the planet." Fred observed.

"A patent would be useless, the device is too simple to build. Enough money is enough, sir. I already have enough funds for all I need, making more is always possible. This planet needs this technology for everyone to use, that's not being generous, it's being practical."

"You do realize that you will be awarded the Nobel Prize for Absolutely Everything?" Wilde had to grin at the all too serious boy.

"Possibly. I calculate our chances for success at about fifty percent if we pursue this course of action."

Wilde stopped smiling, everyone did. Failure could involve events best not contemplated.

"There is one other matter, perhaps the most serious." Jonathan added.

"What's that?" Fred asked.

"The disruption to society will be enormous for a prolonged period of time, lives may be lost, will be lost. In the long run mankind will be much better off with this clean and free source of power, but are we correct to unleash it on the world and to cause so much suffering during the transition?"

"I think we would be doing a much bigger disservice to humanity by not going forward with this." Wilde began. "If things continue on the path this planet is on now it could eventually be the end of everything, we will drown in our own pollution if we don't first fry from global warming."

In the next days there would be steady procession of small and rather heavy FedEx packages delivered to the Wilde home, and to Fred's house as well. Jonathan was buying gold coins for what he knew would be a certainty. The

world economy would undergo a total collapse, gold was always the solid rock to build on in bad times.

Chapter Four UFO

There was a very great deal to do but there was no real timetable or deadline to meet. The first order of business was to determine if a tubular thrust version of the inertial tap was workable. Jonathan continued work at the gravity lab and attended his two classes as usual. Work on the new device's design with Fred Withers took place mostly in the evening. Professor Wilde had held a meeting of the lab's research staff and a consensus had been reached to end the gravity project and publish the results of the frustrating four years of effort.

There was more difficulty this time in calculating the field coils proper shapes for the two foot long fat tube that eventually took shape in

Withers' garage. After two weeks of running computer models and a lot of erasing and redrawing Jonathan finally handed over the plans to the machinist.

"Now how do I form thin gold tubes for catssakes?" Fred asked.

"I considered that, sir. We can apply a thick gold plating to the outside of the iron tubes and fit them in layers one inside another."

"Yeah, that might work. Awful close tolerances to hold."

"I have every confidence in you, sir." It would take the man the better part of a month to get it right but in the end he justified the boy's confidence in him.

Just Fred and the boy were at the machinist's house for the time being, Wilde had an appointment elsewhere and would soon return. The initial test of the thrust device seemed to Fred to be a total failure until Jonathan motioned him over to look at the readout from the strain gauge that the device sat upside down upon.

"Is it doing anything?" Fred asked, there was no outward indication that anything was occurring.

"The strain gauge is only rated for five thousand pounds so I stopped increasing the power at that point." Jonathan explained "Also your garage floor's cement slab might crack if we use too much thrust."

"Jesus! That thing is putting out five thousand pounds of thrust?" Fred asked softly. The two foot long tube was encased in a fiber filled resin that was immensely strong, the boy had only tapped about one percent of the power the tube could probably produce before it would deform under it's own pressure.

"I calculate that we will need six of these units to balance the lift and properly control the UFO." Jonathan explained to Fred.

"You mean I gotta build five more of these sonsabitchs? Pardon my French."

"Regrettably so, sir. But now that one has been completed, mass producing five more should probably proceed quicker. Also we will need two of the circular power generators, one for normal power for the craft and one for backup. Using normal one ten AC power rather than aircraft voltages will simplify building the craft."

Wilde arrived at the house and made his way out to the small and cluttered garage.

"That traffic is getting worse by the day, maybe we should build a flying car instead!" Wilde complained. "Is that thing ready to test yet?"

"It's on right now, doc." Fred grinned.

"Seriously?"

"Yes sir, five thousand pounds right now, it could easily put out five hundred thousand." Jonathan explained. Wilde peered at the strain gauge readout for a very long time before answering.

"I guess it's time to rent a UFO factory." The physicist concluded.

There was simply too much to do for Jonathan and Professor Wilde to continue academic pursuits at the university. Wilde applied for a one year sabbatical and the boy quietly dropped his art and physical education classes. Winifred Salk would actually miss the boy, in an odd way she had come to care about the boy a lot. Her art class attendance would plummet. Fred Withers retired from his machinist job at the lab, he was eligible for his pension and now had much more interesting pursuits to follow anyway.

A suitable hanger was finally located near Sacramento on a recently deactivated air force Smart

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base. Space near the Wilde's home was simply unavailable at any price. Wilde formed and incorporated a small film special effects and props company, SciProps, Inc. All quite legal and above board, never mind that the company had no contracts with any film studios. Jonathan supplied the new company's bankroll.

Basic construction of the UFO's metal frame and it's plywood and fiberglass skin would be contracted out. It was simply too much work to do for the only four people who knew the real use the UFO would be put to. Wilde, Fred Withers and the boy would fit the propulsion and control systems after the contract work was completed.

Jonathan had already been working on a basic design for the unlikely craft, imagine a salad bowl inverted on a large plate, seventy feet across. Three thrust tubes mounted vertically and spaced equally around the edge of the craft would supply

lift, a central tube at the top of the craft would keep the craft level. A front mounted tube would pull the craft forward and was steerable on a heavy swivel, another tube at the rear would provide braking and was also steerable. Everything was kept as simple and foolproof as possible, weight was not a consideration at all, nor was power consumption.

On the premise that some interior filming would be done in the fake UFO, roughed out cabins and a central control room would be built by the hired crew for later detail finishing. There might be some questions about the extremely strong metal framework. If anyone asked, the craft was going to be hung suspended for some of the filming and needed to have the extra bracing. Besides, everyone knew that film people were nuts and had lots of money, give them what they ordered.

Fred was going over the UFO plans with Jonathan in the machinist's kitchen when it finally

struck him.

"I've seen this thing before, lots of times!" "Sir?"

"The spaceship in the old Lost In Space TV series! This is it, even the landing struts are the same!"

"Indeed, sir?" One of Jonathan's most hidden secrets was about to come to light.

"That's where you got the idea for the design, isn't it?" Fred knew he was on to something here.

"Well...."

"You've watched the reruns, haven't you?" The old and supremely silly science fiction series still popped up on television from time to time.

"Yes sir. I found it to be strangely compelling." Jonathan's ears turned just a little bit pink, something the man didn't miss.

Fred was able to stop laughing after a reasonable time, later when he told Wilde and his wife they all had convulsions.

Jonathan didn't think it was very amusing, at least

not that much. Besides, the design was structurally sound and had lots of room inside.

Even with two shifts of workmen and premium wages it would take the better part of three months to construct the UFO 'prop.' In the meantime propulsion designs could be refined and equipment purchased. Fred Withers would have time to complete the drive units.

There was a tendency to get a bit carried away with all that was possible to do in fitting out the interior of the craft, the final design was more like a flying RV than an alien spacecraft. The UFO would have air conditioning, standard window mounted units would draw in outside (and filtered) air through ducts. Likewise the craft would have electric heat and a small working kitchen area, also a tiny bathroom with a shower. There would be a

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large 'below decks' section that would house all of the generators, air conditioners and assorted power equipment. Components designed for RV's fit the bill nicely, there were hazy plans for an extended publicity tour with the craft and you may as well be comfortable.

Navigation would be very simple. A GPS unit designed for a car's dashboard was selected. Besides giving geographical coordinates the unit displayed a real time moving road map (in color), a destination could be chosen and the unit would tell you which way to drive, or fly. Two of the units were ordered, one for the control panel and the other mounted over where the small 'dining' table would be.

Both twelve volt automotive DC power, twenty four volt aircraft and one ten AC would be wired into the craft. Many readily available items such as the GPS unit, radios and exterior lights used the

twelve volt system. Aircraft radios and instruments used the twenty four volt system. Dual fifty thousand watt generators coupled to rotary inertial taps would supply much more than all of the power needed. A bank of four, twelve volt RV batteries would be kept up to power by conventional charging units. Two large aircraft batteries finished out the power department.

All propulsion wiring and control circuits would have dual circuits for safety, there would be no one critical component who's failure could cause a crash. The boarding ramp and locking landing struts would be operated by simple compressed air pistons. The one large window in front of the control station would be fashioned from heavy lexan plastic of the sort favored in armored limousines, you didn't want a dead seagull smashing into your face. The other small round ports would be ordinary Plexiglas. Expensive sports car seats were ordered along with the type

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of seat belts used in racing. Crashing wasn't anticipated but it paid to be prepared. If things went as expected it would be about as turbulent and noisy as a balloon ride. That is to say, very smooth and very, very quiet.

There was enough power for more than supersonic flight but plywood and fiberglass do not take kindly to such speeds. Also safety was a prime consideration, low and slow would keep the craft away from most other aircraft, besides you wanted as many people as possible to see you. It was doubtful if they would exceed perhaps one hundred and fifty miles per hour. Would they be in violation of FAA regulations? Probably so, if the agency had any regulations that covered UFOs.

Save for the inertial taps anyone could construct the odd craft, it was all very off the shelf and low tech.

A Tale of Two Evolutions

Chapter Five SciProps, Inc.

"It sure as hell looks like a UFO." Fred commented as the four of people stood inside the hanger looking at what the workmen had finally left them to complete. A flying saucer finished in glaring flat white paint.

"What is that smell?" Jennifer Wilde asked with some disgust.

"The fiberglass and paint, we'll leave the hanger door part way open until it cures out." Professor Wilde explained. "Everyone around here knows that it's just a movie prop, or so they think."

The old hanger would be like their home for the next few months, a large apartment had been rented just four miles from the ex air base for sleep and possibly meals. It was too far to commute on a daily basis from the south bay area to Sacramento.

"So let's get to work." Wilde's words were almost unnecessary, Jonathan was already halfway up the ramp with his roll of plans under one arm. Laying out the propulsion system electronics and control panel wiring would be left to the boy, he understood it, he designed it. Jonathan would from time to time need help with the actual physical work, brains were no substitute for strength and actual experience with power tools.

Fred Withers already was familiar with the welded anchor points for the drive units, he had from time to time kept tabs on the progress of the workmen who did the frame construction. Four inch diameter steel tubing made up the most of the internal frame, a heavy steel I beam ran from the bottom of the craft up through the center to the top. It would only take a matter of a few days to bolt in the inertia units, then he would help Jonathan run

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the wiring.

The internal compartments had been roughed out as instructed, the smell of fresh cut plywood permeated the interior of the craft. The bare wood would only get a coat of light blue paint from Jennifer, she would have preferred nice paneling or wallpaper but was out voted. She did get the males to concede to some smooth outdoor carpeting to cover the wooden floor, it would go down right after the painting was finished.

In the below deck space Wilde would in the days to come busy himself with installing such items as the air conditioners, heaters, storage batteries, a large tank for fresh water, sewage holding tank, air compressor, ad infinitum. It would eventually take just about everyone to wrestle into place the heavy generators and their attached drive units. So far no other person had seen or even heard of such a thing as a background inertial tap,

they wanted to keep it that way until it was safe to reveal everything to the world.

The air powered landing struts already supported the craft. Like aircraft landing gear the three struts locked into place when fully extended and then did not depend on air pressure to support the weight of the UFO. The boarding ramp was also in working order, when lowered it simply rested on the ground, raised it locked into place with a small air powered latching system. The pilot's control panel would have a number of air valve controls as well as the electronics for the drive system. So far the air pressure to operate the ramp and landing gear was supplied from an external compressor, that would change.

The first day's labor went beyond schedule, as most days would. Dinner was chicken in a bucket, Jonathan was asleep as soon as you might expect a very tired boy to be.

It was almost a month before the first test of the propulsion system took place. Like all projects there were on the fly modifications and small problems to overcome. The first test would involve lifting the craft just a few inches off the hanger floor. For safety the UFO would be tethered via steel cables to anchor bolts in the hanger's cement floor.

Balancing the odd craft was kept as simple as possible, the lifting drives were mounted in the hull directly above each of the three landing strut's round pads. A strain gauge in each landing pad would indicate when it was within one thousand pounds of lifting off. The central lifting drive at the top center of the craft would then add it's thrust to provide a central balancing point and final lift off. At least that was the theory.

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By common consent Jonathan would be the test pilot, he knew the system better than anyone and had after all designed the whole thing. The internal power generators had not been installed at this point so a modest electrical cord ran from a wall plug up into the belly of the UFO. There was only three feet of slack in the safety cables attached to the landing struts, it would be a short flight.

"Is everyone clear?" Jonathan asked Fred on the inexpensive walkie talkie.

"All set, kid. Let 'er rip." Fred had again wanted a countdown, maybe he would get one on the first real flight. The three adults stood well clear of the now suddenly menacing craft

"All right. Applying power now."

The boy adjusted the micro fine voltage controls on each of the three outer lifting units until the digital readouts registered an even one thousand pounds of weight on each of the landing pads. Ever so slowly Jonathan then added power to the central thruster. It all worked as advertised as the UFO eased up off the floor with only a slight wobble and not a sound.

"You're at one foot right now!" Fred tried to control his excitement. Wilde and his wife were almost jumping up and down.

"Is there any lateral drift?" Jonathan asked over the radio.

"Just a tad to your left, you're still rising some." Another tiny adjustment to the central thruster caused the craft to come to a dead hover at two feet, it would have sat there for days if left alone.

"Holding steady, kid." Fred advised.

"All right. I'm bringing it back down now, it all seems to be working properly."

As if on a hydraulic lift the UFO settled back onto the concrete with only the slightest muffled thump. The creaking of the metal landing struts as they once more took up the weight of the craft was to be expected. Jonathan sat back in the sports car seat after powering down everything. He held up his right hand and looked at it, he was shaking just a little. Apparently the smartest person on the planet could get excited just like everyone else.

"Hey, let us in kid!" Fred demanded.

"Oh. Sorry." Jonathan remembered the ramp and turned the air valve to lower it, that too worked as designed.

A great deal of hugging and back pounding then descended on the boy, that and kisses from Jennifer Wilde. The successful test was a good birthday present for the boy, the next day he turned eleven.

After the small test flight everyone resumed work with a great deal more confidence in the project, Jonathan never had any real doubts but the Smart

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others did. The rate of progress seemed to speed up, after the heavy generators were installed (a heartbreaking and back breaking job) there only remained the myriad of small details to deal with and the living quarters to be fitted out.

With the control panel mostly finished and the drive components installed Jonathan turned his attention to designing an internet site and e mail program that would flood the planet with information that no government could ever hope to suppress. A simple and concise explanation of the theory of the Background Inertial Tap (the B.I.T.) was on the opening page of the site. Photographs, diagrams and a short video segment of both a power generator and a thrust device in operation would be included. A list (purchased) of three million e mail addresses of people known to be in technical professions would be used to distribute the message about the site and just what a B.I.T. was.

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It seemed like a foolproof plan to give mankind a clean source of unlimited power and the means to move out toward the stars.

No plan is ever completely foolproof.

A reporter for one of the local television stations came nosing around, it was almost inevitable and had been planned for.

"You can have a quick look, but no pictures." Wilde explained to the obviously inexperienced reporter.

"Can you at least tell me something about the film?" Jacob Wentz wanted a good story out of this.

"I would if I could, we just build props here. They don't tell us very much about how they will be used." Wilde lied, fairly well at that.

The reporter never got enough that day to make a decent story, he did get chewed out for wasting

most of an entire day. Jacob Wentz vowed to himself that he would return to the hanger on his own time with his own camera, preferably when no one was around.

Midsummer found the weather very hot and the UFO almost completed, just a few minor touches here and there to go. It was time for final decisions to be made.

"Where do we take it first?" Fred asked.

"A shakedown cruise." Jonathan suggested.

"Agreed. Where to?" Professor Wilde asked.

"Perhaps to the east, the mountains. On the day that the internet program initiates, then back to the bay area. A circuit around San Francisco, landing at the ballpark during a televised game." Jonathan almost smiled at the prospect of such a thing.

"What time of day do we leave here?" Jennifer asked.

"I had dawn in mind," Professor Wilde replied,

"we've all agreed that nighttime flight might be too dangerous. Besides, we want to be seen."

"It still needs a name." Jennifer Wilde had brought up the subject many times in the past, so far with no results.

"The Loophole." Fred suggested.

"Sir?" Jonathan asked, as much at a loss as the rest.

"It defies the law of gravity. Lawyers always look for loopholes in any law."

The UFO had a name.

Chapter Six Countdown

Jacob Wentz had learned something besides video 'journalism' while in college. His roommate was the son of a locksmith and taught Jacob the art of picking locks. Both students supplemented their income by relieving others of such pricey items as laptop computers. Picking a mass produced door lock is not terribly difficult, the tolerances are loose and if you know what you are doing it can be done almost as quickly as using a key. Jacob wasn't as skilled as his roommate, it took him almost a full minute to tease the pins into place in the hanger's office lock.

Jonathan and the Wilde's were a bit naive about such mundane matters as property security. Fred Withers was more pragmatic and had wanted

to install a better lock on the door, somehow it never got done. Besides, who would want to steal a fifteen ton movie prop? Jacob Wentz didn't want to steal it, he just wanted some good video and still pictures to sell to the entertainment news programs.

Management of the defunct air base was short on money for security patrols and so there weren't any, Jacob knew this from a few evenings parked at the edge of the base's perimeter fence. Turning on the hanger lights was no problem. What the glaring fluorescents revealed almost caused Wentz to drop his (stolen) video camera.

"What the fuck?"

The white UFO had two very large American flags on it's upper hull, two more on the underside. Two foot tall black lettering read "Experimental Stanford University Background Inertia Tap Project." Above the boarding ramp was the name "USS Loophole."

"Now what the hell kind of film could this thing be for?" Wentz asked himself. For that matter how did they expect to transport the huge thing to any film studio? Wentz just shook his head and started a walk around video taping of the craft, the longer he looked at it the stranger the feeling he got in his stomach.

"Get some interior shots and then get out." Wentz muttered to himself as he climbed the non skid rubber that covered the ramp. Once inside he was in for more revelations.

"This is not a prop!" Jacob Wentz didn't see anything that looked like it belonged in an alien spacecraft film. He did see hastily painted plywood, stuff that looked like it belonged in a RV. A control panel in front of a pilot's seat that didn't make a lot of sense but appeared to be all too functional.

Neat labels identified certain knobs, levers and switches:

"Lift tube #1"
"B.I.T. Generator #2"
"Strut Retract"
"Forward Propulsion"
And so on.
Many pictures were taken.

There was a pricey automobile GPS navigation unit, an air speed indicator and an altimeter. There was an aircraft multichannel radio. There was even a small steering wheel. Wentz could not make it all come together until he saw the open hatch to the below decks area. He sat staring at the B.I.T. generators for almost ten minutes before flipping the switch labeled "Preset Field Power #1."

In seconds the odd looking generator was up to speed, it made very little noise, only a low hum.

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"Shit!" Wentz managed some more video of the unit in operation before shakily turning the switch off. He could tell that it was a generator but what the hell was that gold plate thing doing. What made it run? Wentz did decide two things.

"This thing flies and these fucking pictures are worth a fortune!"

Now who to sell them to?

It was two days until liftoff, Fred would finally get his countdown. Last minute adjustments were almost done, food and personal supplies were being stowed by Jennifer. Even the small bunks in the two cabins were made. The Wilde's would have one cabin, Fred and Jonathan would share the other.

The web hosting company had the web site and e mail program ready for activation, it would go

online the morning of their departure. Jonathan also mailed a large envelope to the law firm in San Francisco, he told no one about it.

No one had any qualms about the 'shakedown cruise,' the propulsion and control systems had been well tested (in the hanger). They would proceed slowly and deliberately, there was no sense that they would be in any real danger. The only real moving parts in the propulsion system were the generators and they were backed up with multiple batteries.

Jonathan had loaded several routes and waypoints into the GPS unit. They would fly north over the flat valley for fifty miles, then turn to the east for Lake Tahoe. From the deep mountain lake they would then make directly for San Francisco, the Giants had an evening game that day. From there they would play it by ear.

Jacob Wentz was having a great deal less success in selling his remarkable pictures. The television station he worked for was at first very much interested in running with the story until Wentz confessed that he had broken into the hanger to obtain the video footage, then the station promptly fired Wentz. Accessory to breaking and entering and a mountain of lawsuits facing the station if they ran the footage killed the story and Wentz's budding career.

In fact no one would buy the pictures. Most thought it was a hoax, the rest wanted no part of the legal entanglements.

Hoping to put himself in the publicity spotlight Wentz finally went to the FBI with his pictures and video. He would just be doing his civic duty, he would be exposing a threat to the nation's safety and well being. Wentz wasn't terribly bright, he had barely graduated from a not to well thought of college.

The FBI arrested Wentz after they finally realized what it was they were looking at in the pictures. Wentz did have enough brains to make a deal, he would tell the FBI where the hanger was if they would forget about the breaking and entering. All in all it had been a very bad week for Jacob Wentz.

"Danger, Will Robinson!" Fred delighted in waking up the boy by shouting that particular warning in his ear.

"Crap!" Jonathan stirred and curled up tighter, he would learn to actually swear if he was around Fred much more.

It was three in the morning in the Sacramento apartment, a dawn departure called for waking at this God awful hour. After a struggle the boy

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managed to wobble into the bathroom and then to dress. Jennifer Wilde had finally persuaded the males to wear the matching dark blue jump suits she had bought, she had to do some tailoring to get Jonathan's to fit properly.

"I feel like a fuc.. a damned astronaut or something!" Fred complained as they sat down for a light breakfast. Jonathan withheld his own thoughts on what they all wore.

"You look nice, Fred. You all do." Jennifer replied with a smile.

The FBI was suiting up that morning also, they were fond of boots and black jump suits. Why they felt the need for submachine guns to detain and investigate a physicist and his wife along with a retired machinist and an eleven year old boy is best left to them to explain. The hanger had been under

observation for the last twenty four hours, the Bureau was on shaky legal ground but the people in the White House claimed it was all a matter of national security.

From a quarter of a mile away the agents watched as the minivan pulled up to the hanger. "They're all there, the three adults and the kid." Agent Barrow was wondering why all of the

firepower and over twenty agents were needed on this job. A voice replied to him in his earpiece.

"Keep your position for now, move on my command only."

"Jonathan, power up everything and move her out onto the tarmac. We'll close up the hanger and load the last of the stuff when you're outside." Wilde's pulse was somewhat elevated, they had all worked so very hard for this moment.

"Yes sir. Powering up." Jonathan was as usual very calm, at least on the outside.

Wilde walked back down the ramp and then went over to open the hanger doors, there would not be much room on either side when the UFO eased out.

"She looks good." Fred spoke quietly to Wilde as the rotating police lights on the top and bottom of the craft lit up the hanger.

"Yes. She does look good." Wilde very much agreed with the tall black man, they were finally going to realize their dream.

"Jee Zus H Christ" Agent Barrow whispered as the hanger doors moved slowly apart. "That fucking thing is going to take off!" This last bit he didn't whisper.

Jonathan raised the ramp and every so gently lifted off of the hanger floor, rotating the craft to face outward. At a slow walk the Loophole silently floated out into the pre dawn darkness. Wilde gave him a running account of the UFO's progress on the walkie talkie.

"That's good Jonathan, park her there for now."

"Yes sir, sitting down."

The boy had just lowered the ramp again and was fiddling with the GPS unit and the adults were busy closing up the hanger when the first FBI vans squealed around the corner of the building.

"Jonathan! Lift off right now!" Wilde shouted into the walkie talkie.

"What?" It took a moment for the boy to realize what was happening. There were men with machine guns piling out of vans, some of them were running towards the Loophole. Raise the ramp!

It was a near thing. The closest agent to the Loophole almost managed to grab onto the edge of the rising boarding ramp. Almost. Jonathan sat immobile for a moment as he watched the people he had come to love being hand cuffed. The men in black jump suits had guns pointed at them. There were guns pointed at the Loophole, at him.

The logic that was the largest part of Jonathan's makeup took over. There was nothing of a practical nature that he could do to help his 'family.' It was time to leave and put the Loophole to it's true purpose.

"Tell him to open up!" Agent White demanded as he held out the walkie talkie to Professor Wilde.

"No, you fucking Nazi!" Wilde could come directly to the point when moved to.

"We have orders to seize that 'thing' and we will!" White replied, not at all pleased with Wilde's lack of cooperation.

"Are you going to open fire and murder an eleven year old boy?" Wilde asked, a little more calmly.

This seemed to bring the agent back into full focus, White had two sons of his own. While some could, White could never give an order to fire at a child, even a child in a departing UFO.

Jonathan had quickly applied power to the lift units, he was two hundred feet high before the FBI agents had time to do more than stare open mouthed at the craft's silent departure. Loophole then gracefully drifted off to the north at a sedate speed as the landing struts folded up and into their recesses.

"Well just shit!" Waters had really blown this operation. The Bureau and the White House would

not be amused.

"What to do?" Jonathan asked himself, he wasn't in a visible panic but he was close. The boy was trying to cope with sorting out the odd flight characteristics of the UFO and the sudden appearance of the men with guns. They had his 'family' and he could do nothing about that. Perhaps when the internet learned about the B.I.T. and the media had video of Loophole they would release them.

The internet would know nothing of Loophole. A printout of the B.I.T. website had been lying on the dining table in the Loophole, Jacob Wentz had taken a very clear close up of the document. Men with federal I.D.'s and guns had already visited the web hosting company.

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Jonathan decided to proceed with the original plan, at least for now. Actually flying the UFO was entirely different from careful hovering in the hanger. The craft had a tendency to slowly nose into the prevailing wind unless frequent corrections were made with the steering wheel. Updrafts and down drafts had some effect also but were not a real problem. The boy turned the craft toward the first programmed waypoint in the GPS unit, the Desolation Wilderness area just to the west of Lake Tahoe. He decided that he would sit down there for a while when he arrived. Jonathan needed some time for clear thinking and he could also set up the portable satellite link to check on the internet site and e mail.

Loophole seemed very comfortable cruising at two hundred miles per hour, much above that speed the craft began to oscillate up and down in a most alarming manner. An altitude of one thousand feet above the terrain seemed prudent. It was only

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a few minutes until the land began to rise to form the Sierra Nevada range, Loophole climbed along with the sloping landscape.

A few early risers had seen the white UFO's over flight, they could make out the American flags and for the most part decided it wasn't an invasion from Tau Ceti or someplace. The six people who were silly enough to call the local radio and television stations were just put on permanent hold.

The Wilde's and Fred Withers were taken to the local FBI field office for questioning, later they would be put on an aircraft bound for Washington, D.C. The President's reaction to the news that the Loophole was now flying to parts unknown was about what you might expect it to be.

The GPS unit beeped twice and displayed the

message "ARRIVING AT DESTINATION." Jonathan didn't need reminding, he was already looking for a landing site. The terrain was mostly massive granite formations, small lakes and ponds and trees. After some drifting about the boy finally spotted a fairly flat rock formation next to a small lake, there were no people visible.

"Landing gear." Jonathan said to himself, he had read that occasionally pilots would forget that most important detail when coming to earth.

The boy managed a very smooth touchdown and the craft was almost perfectly level when he eased down the power on the thrust units. It was a very beautiful August morning, the high altitude made for extra breathing. Before lowering the ramp Jonathan went to the small metal locker in his cabin. Fred wasn't as trusting and gun shy as the Wilde's, his old service .45 automatic and two clips of ammo were under the man's clean underwear. Fred had told the boy about the gun but not the

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Wilde's. Grandfather had taught the boy how to shoot and safely handle all sorts of firearms. Jonathan was pragmatic about guns, they were a tool that could protect you and put food on the table, they were not a tool to entrust to fools.

With practiced ease the boy checked the chamber and rammed a full clip into the handle of the .45, he did not chamber a round before putting the heavy automatic in his waistband around at the small of his back. A final look around and another check of the surveillance monitor's four outside cameras convinced Jonathan that it was safe to lower the ramp.

Across the small lake a pair of hikers watched from cover as the UFO's ramp silently lowered to the rocky ground. The young man and woman had been scared witless when the UFO had silently over flown their small and almost invisible camp. The American flags and the young boy now

standing at the bottom of the ramp slowed their pulses considerably. The pair started taking pictures, a lot of pictures.

Jonathan was fighting with the satellite up link dish when the pair of hikers decided it was safe to go and investigate the craft. By the time they had made their way around the lake Jonathan was back inside and logging onto the internet.

"It's not up!" Jonathan had a very bad feeling about this latest development, the website was not up. No amount of inquiring to the host company produced any results. There was no record of anything. Running search programs was equally fruitless.

"Hello inside!" David Simon yelled up the ramp, feeling a bit silly in the process. Jonathan nearly lost control of his bladder at the sound of the very loud male voice just outside. The boy thought about just lifting off but the satellite dish was still outside, its connection cable running up the ramp. Jonathan chambered a round in the .45 and edged his way to the top of the ramp.

"Hello. Who are you?" The boy finally asked as he peered down the ramp, the .45 hidden behind his right leg.

"I'm David, this is Susan. We're camped across the lake and what the hell is this thing?" The young man took a picture of the boy while he was still talking.

"What does it look like?" Jonathan answered, somewhat more at ease now.

"A damned UFO!"

"You have remarkable powers of observation, sir."

"Can we come up and see inside?"

"No. I have to be going now."

"Aw, come on! Just a quick look? Where are your folks?" Both the man and his female

companion started to move unto the ramp.

"Please go away." Jonathan moved the gun in

his hand around to the front of his leg, the barrel still pointed down at the deck.

"Whoa! Kid, don't get nervous with that thing! We'll go, just stay cool!" A large automatic can dampen a lot of curiosity, the muzzle of a .45 looks like a black tunnel to hell.

"Thank you."

They did go, taking more pictures along the way. When they were back across the lake Jonathan went out and collected the dish and it's tripod and then closed the ramp. Time to go.

David Simon used up the last of his film taking pictures of the flying saucer's departure.

"It never made a sound!" David whispered to his girl.

"What makes it go?" Susan asked.

"Smoke and mirrors I suppose. Come on, these pictures are worth a lot of money." Jonathan decided against flying directly to San Francisco, so much had gone wrong, so much needed to be sorted out. Where to hide a large white UFO in the daytime? Snow would do but this was August.

The altimeter read over eight thousand feet in the deep ravine of pure granite, the Loophole sat on what was almost a small glacier of ice and compacted snow. Only when the sun was directly overhead did it's warmth and light fall on this hidden spot. The boy had almost missed the place in his search for a hiding place, surely no one had ever even been here. At the moment the Loophole was in the shade and even in August that meant it was chilly at this place and altitude. Jonathan switched on the heaters and sat down at the small dining table. It finally came to the boy that despite all that had occurred this day he was hungry, very.

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Jennifer Wilde had done a very good job of stocking the tiny freezer and the adjoining refrigerator. Jonathan opted for a bologna and cheese sandwich with corn chips and a Coke. It was a simple meal and a very lonely meal. What was happening to the Wilde's and Fred?

"Just really what is a background inertia tap?" Agent Warburton asked for the third time. For the third time Professor Wilde tried to explain what even he did not fully understand.

"It is a device that taps into the combined inertia of the universe. The universe slows it's movement in proportion to the amount of power the device uses."

"This thing slows down the universe?" Warburton wasn't even close to understanding this gibberish.

"There is less effect than a flea jumping upon

the Earth, it's too small of an amount to even comprehend." Wilde had lost his patience some time ago and was about to detonate.

"So it's like antigravity or something?"

"No! You nitwit, it has nothing to do with gravity!"

Warburton took another tack.

"The boy, Jonathan Grant. He invented this device?"

"Yes. He's by far the greatest intellect I have ever encountered. If you numbnut assholes harm that child all of history will damn your mothers for giving birth to you! And what the hell have you done with my wife?"

This pretty well ended Wilde's interrogation for the time being.

Jonathan took a short walk to think some

more. A short walk was all that was possible on the patch of snow and ice. Breathing was even more of a chore than at the first landing site.

"I'll wait till dark then send e mails to all of the people on the Professor's laptop list." Jonathan decided. He would have to get to a spot where the satellite dish could be pointed without obstructing granite cliffs in the way. Perhaps a remote place in the high desert area to the east. Then what?

The boy returned to the craft and raised the ramp to keep out the chill of the air. A thorough check of all of the UFO's systems occupied him for the next two hours. Everything was working flawlessly save for the GPS units, they couldn't pick up enough of the orbiting satellites from the confined ravine to compute a location.

Lacking anything else to do Jonathan decided that some extra sleep was in order, it would be a long night. Did he say a prayer for his family? The President and his advisors were sufficiently alarmed enough to hold an emergency meeting.

"This inertial tap thing will destroy half of the economy! Hell, the whole economy!" The National Security advisor slammed his hand on the table to emphasize his point.

"It has to be kept under the control of the military, NASA has too many flakes working for them to keep any sort of secret." The Secretary of Defense added his two cents to the pot.

"It may already be too late to keep this under wraps. That boy is flying around somewhere in that thing, half the country will see it. All of the world will see it if it makes it onto the networks." The President's observation caused a moment of silence around the table.

"Then we have to find it and bring it to ground,

now!" SecDef demanded.

"We may find it," replied the President, "but how do we bring down?" No one answered but they all knew the answer to that question.

Flying at night was basically terrifying. There was no moon, once clear of the Lake Tahoe area most of the landscape below was very, very black. Only occasional small towns and vehicles on the infrequent roads provided any reference points. The GPS unit said he was somewhere to the west of Empire Nevada, north of Pyramid Lake. There were no lights visible anywhere.

"This seems pretty remote." Jonathan mumbled to himself, it was a remarkable understatement.

The boy decided to risk using the powerful

spotlights built into the bottom of the craft's hull, without them he would be very likely to fly the Loophole right into the ground. A good thing too, when he flipped on the million candle power beams he was a lot closer to the high desert than he had realized.

"Damn!" The last time he had used that word he had been eight years old and had bashed a finger with a hammer. Grandfather had been most displeased with his language and had lectured him about weak minds and poor breeding.

Jonathan did have some good luck with the landing site, it must have been a dry lake (or pond) and was perfectly flat and featureless. Loophole lightly touched down and the boy promptly shut off the brilliant spotlights. It took several minutes for his night vision to return, even so the view out of the window was like looking into a black hole. Leaving nothing to chance he again grabbed the .45 (once more with an empty chamber) and stuck

it in his waistband. After the ramp touched down he took a powerful flashlight and did a quick circuit around the outside of the craft. If there was anyone else within five miles they weren't using any sort of lights.

Whoever designed the portable satellite dish had the good sense to equip it with a small green indicator L.E.D. when it was pointed at the right place in the sky. Back inside the UFO Jonathan raised the ramp, leaving it open a crack to admit the satellite cable. He didn't want any critters wandering in uninvited whether they had four legs or two (or none).

After powering up the computer that was bolted beneath the control console Jonathan composed a two page letter explaining the last day's events and just what an inertial tap was. He selected over one hundred of Professor Wilde's associates at the university as addressees and

then clicked on the send icon.

"Invalid access account number."

The FBI had voided the satellite account. Shouting into the desert outside would have a better chance of getting the word out.

A Tale of Two Evolutions

Chapter Seven Sightings

The shaft of brilliant morning light moved slowly to finally wake Jonathan, the boy had fallen asleep in the pilot's seat after hauling in the satellite dish. Loophole was as exposed as a cue ball on a billiard table.

"Damn!" He had said it again. It was past time to make Loophole as well known as was possible, internet or not. There would be a safety of sorts above populated areas, the empty high desert offered no safety at all.

Searching thousands of square miles was a daunting challenge for even the KH 12 reconnaissance satellite, even if it's quarry was a brilliant white disc with large American flags on it. Loophole was spotted at the far northern edge of Smart

by Richard Stotts

the real time image just as the satellite passed out of range. Even with a hasty orbit shift the white disc would not be in view on the next pass the satellite made. Loophole was southbound at it's top blazing speed of two hundred miles per hour. So were four northbound F 16's out of Nellis Air Force Base, at a considerably faster pace.

Between steering adjustments Jonathan made quick trips to the small bathroom and then to the 'kitchen.' Breakfast was a microwaved Pop Tart and a glass of milk while trying to pick up something on the AM car radio. The GPS unit was pointing the way towards Reno, the closest city of any size. Loophole was fifty miles out from The Biggest Little City In The World when the F 16's finally spotted the white UFO.

Jonathan had kept the aircraft radio on and switched to the guard channel in case any aircraft ventured close. The boy was startled when the

radio finally emitted something more than just the occasional burst of static. It became difficult to make out what was being transmitted as the four F 16's thundered past Loophole at about six hundred knots. The pass had been close enough to cause the ungainly craft to wobble in the jet's wake turbulence.

"Shit!" The boy's language was going steadily downhill.

"Unidentified aircraft, this is Air Force flight of four. Do you copy?" Major Bannon had seen a lot of weird aircraft in his day but he was now looking at a God damned flying saucer plastered with American flags.

"Yes sir, I can hear you." Jonathan finally managed to reply, not too steadily.

"Ground your aircraft at once or we will open fire" Major Bannon was wondering if the person he was talking to was as young as he sounded and just why the nutty looking UFO was such a big danger. He also wondered just what was keeping it in the air.

Jonathan waited a moment before replying.

"But why would you open fire, sir. This craft has no weapons and is no danger to anyone." Precious miles were passing as they talked, Reno was getting closer.

"Identify yourself." Bannon demanded.

"My name is Jonathan Grant, sir."

"How old are you?" The fighter pilot knew a kid's voice when he heard one.

"I'm eleven, sir."

No one had told the fighter pilots who or what was at the controls of the UFO. Major Bannon felt like shooting someone but it wasn't the child flying that silly damned saucer thing.

The fighters were coming around for another pass, this time as slow as they could manage. With full flaps and extended landing gear the F 16's just barely managed to hang in the thin air as they pulled alongside the Loophole. Jonathan waved at them.

"Son, put that contraption on the ground!" Bannon thought that maybe yelling would work, it usually did with his own kids.

"No sir, I can't do that. Sorry."

"You're in a lot of trouble, boy!"

"Yes sir. How's your fuel holding out?" When Bannon stopped laughing he managed an answer.

"We're about to suck air, kid. How about you?"

"I could die of old age before I have to land, sir."

"Then good luck to you, kid. We're outta here."

Major Bannon was telling the truth. The four fighters picked up speed and diverted to Reno's civilian airport, they were indeed almost out of fuel. When CINCUSAF found out he had dispatched fighters to shoot down a boy in a homemade UFO it got very hot on the direct line to the White House.

The gambling never slowed in the casinos be it fire, flood or UFOs. The people on the streets did look up and point in open mouthed astonishment, a flying saucer was hovering over downtown Reno. Maybe it was some sort of advertising blimp or something.

At least the Air Force had lost interest.

Loophole orbited around Reno for almost two hours, every news helicopter that was available played tag. One of the helicopter pilots tried the guard channel and the reporter on board had a very long chat with the pilot of the UFO. Newsrooms are fond of broadcasting car chases, a flying saucer chase was carried by every network affiliate in the country. Jonathan Grant was a name soon familiar to everyone with a working television, the Wilde's and Fred Withers were also featured prominently in the airborne interview. And what in the world was an inertia tap?

The White House was not a happy house.

"Well that tears it! The whole fucking country knows about it now!" The President gulped another antacid as he glared at the other people in the Oval Office.

"We may still be able to salvage this mess Mister President, no one has any real knowledge about how an inertia tap works or how to construct one, whatever the hell it is." The Chief of Staff was ever the optimist.

"That boy knows, he invented the damned thing!" The President owned a lot of oil stocks.

"Yes sir, but if we can grab him and that flying pisspot we can make this all go away."

"lf."

"On to San Francisco." Jonathan said to himself as he selected another waypoint on the GPS. There was another Giants game this evening. It didn't seem likely that they would actually try shooting him down again, the F 16 pilot had seemed like a reasonable sort of person.

The prevailing winds were out of the west so it was possible to let the Loophole just nose it's own way to the coast. Jonathan was able to eat some lunch and take a break from the tedious course corrections. An autopilot would have been nice but it would have taken weeks more to design and test. A cruising altitude of about one thousand feet over the central valley seemed right, so did about one hundred miles per hour. Sacramento passed several miles to the south as the boy wondered about his 'family' and where they might be.

The glaring white UFO was collecting a small air force of news helicopters and curious light aircraft. Sacramento contributed a sheriff's helicopter but Jonathan just ignored it's orders to land. By now most of civilization was watching the odd airborne procession. A last ascent over the Altamont Pass brought the bay area into view. It was still some hours until the baseball game, what to do in the meantime?

"Leaflets." Jonathan decided. He needed something to toss out over the baseball stadium for people to read, how to build an inertia tap, what had happened to his family. There was a small laser printer secured in the cabinet with the computer, an unopened package of five hundred sheets of paper was stacked next to it.

Loophole made a slow crossing of the city of San Francisco, people knew the UFO was coming

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and drugstore film developers would be busy for days afterwards. A steady onshore wind allowed Loophole to keep an almost stationary position off of Baker's Beach. The boy was able to begin composing and then start printing up his small supply of leaflets with only occasional glances out the window and at the altimeter. The radio was tuned to the local all news station, there was nothing but talk of the UFO and where it was at the present.

Like all plans Jonathan's was subject to the vagaries of chance and mishap. There were three helicopters and seven fixed wing aircraft orbiting around the almost stationary Loophole. The Piper Cherokee that normally did traffic reports clipped the tail rotor of one of the news helicopters causing them both to flutter like leaves down into the frigid Pacific. The aircraft radio came alive with emergency traffic on the guard channel. Jonathan ceased his printing efforts.

"Oh no." The boy was back at the pilot's console just in time to see the helicopter spinning into the ocean. They were almost two miles offshore by now. Logic told Jonathan to depart the area and let the professionals do the rescuing. Grandfather's voice told him to go and help those people as best he could, he also knew how cold that water could be.

The news media, already in a panic over the arrival of the UFO, went as berserk as you might expect. Especially when the white saucer began descending toward the floundering helicopter crew. One of the two remaining helicopters was moving to hover over the still afloat Piper. The other helicopter seemed content to stay away from the eight foot seas that were running and to continue providing video of the whole mess.

Jonathan couldn't do much more than lower

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the ramp fully and try and edge it toward the freezing people clinging to a single seat cushion. The lower he went the larger the ocean swells appeared. The wave crests were actually brushing the bottom of Loophole when the first of the helicopter survivors managed to lunge onto the ramp as it dipped into the sea. The man then turned and assisted the bleeding woman who was next onto the ramp, a larger than average wave almost washed them off the ramp and caused Loophole to wobble alarmingly. Jonathan lifted the craft momentarily to steady it before descending again for the last person in the water. It seemed like hours had passed but all three people were up the ramp and into Loophole within five minutes.

There was little time for conversation with the rescued helicopter crew, the two people in the Piper were still in the water and the other helicopter was having no success in plucking them from the rough water. Loophole would have to do another rescue.

"Go help them!" Jonathan yelled as he pointed at the still open ramp. The two men did so without question, the woman reporter was bleeding badly from her head and seemed too dazed to do much of anything.

Another five minutes had the other two people out of the water and inside Loophole. One of the men from the Piper seemed to have a broken arm. Jonathan had to get them to a hospital or some sort of medical help, but where? He'd probably be arrested the minute Loophole's ramp was lowered. For a minute or two there was little conversation, the dazed survivors did a lot of looking around trying to figure out what sort of cheesy spaceship this thing was.

"Where is a hospital?" Jonathan finally asked.

"Over there, son. Go that way." Ray Kennon pointed to the east, he was the helicopter pilot and knew the city more than very well. "And thanks for saving our butts." "You're welcome, sir."

"Why is this thing even in the sky? I have to ask." Kennon continued.

"Inertial tap thrust tubes. It's a bit complicated to explain fully."

"I heard that from the Reno interview you did. You invented this gizmo?"

"The concept is mine, needless to say I had some help building this craft."

"You said that men with guns arrested your guardians, were they FBI or what?"

"I'm not too sure, sir. They had no sort of identification that was visible."

Another few minutes had them in sight of the hospital. There seemed little room to land anywhere at ground level but the hospital did have a helicopter landing pad on it's roof. Jonathan opted for the helicopter pad, it should be safe enough if he didn't put the full weight of Loophole on the raised platform. Two of the hospital people who would come aboard the UFO to assist off the injured would be FBI agents in borrowed white coats.

Chapter Eight Swallowed Up

"Take this thing up, now!" Agent Blythe ordered, the boy didn't seemed too inclined to cooperate.

"No. I will not." Jonathan had almost expected something like this to happen. The crash survivors hadn't suspected anything until they were all down the ramp and moving into the hospital. Blythe scanned the odd control panel and spotted the air valve labeled "Ramp." A low hiss of air then accompanied the ramp's closing.

"Now take this thing up or I will start breaking your skinny fingers." Blythe's quite tone had the desired effect, Jonathan was certainly no fool and had no desire for pain. Loophole ascended vertically over the city, as silent as always. The agent had already spotted and retrieved the .45 that had been stuffed between the pads of the pilot's chair. Jonathan had no inclination to get into a gun fight in any case.

"Where to?" Jonathan asked in a level voice. He had wanted to remark on the agent's probable sexual relations with sheep but decided some self control was in order.

"Southeast for now. How fast can this thing go?"

"It becomes unstable above two hundred miles per hour."

"Fuck! Is that all?"

"I can demonstrate the effect if you wish."

"Just get us going!" Blythe started punching numbers into the cell phone that he pulled out of his jacket, then he cursed some more.

"I can't get a signal in here!" Blythe complained, so far the other agent had let him do all of the talking.

"Metal frame." Agent Spitz observed calmly.

"What?"

"This thing has a metal frame." Spitz pointed at the overhead where some of the frame tubing was exposed.

"Perhaps if you lowered the ramp and went outside?" Jonathan offered, as dead pan as only he was capable of.

Blythe just glared at the boy for a moment. "What kind of radios do you have?"

"There is a standard civilian aircraft unit and a rather nice Blaupunkt AM FM automobile radio."

"No cell phones?"

"No. I had to take off before they were brought aboard, your comrades were abusing my family and pointing guns at me." Jonathan continued in his infuriatingly calm tone.

"Then there is a cable plug for an external cell antenna?" Blythe was getting red in the face by now.

"Of course, over there." The boy pointed to the far left of the control panel.

"Why the hell didn't you say so?" Blythe shouted.

"You didn't ask."

Blythe almost slapped the boy but restrained himself. It had been a very hard day for the agents, they had reached the hospital with only seconds to spare and with only very vague instructions.

"Blythe here, we have him. We're on board and heading southeast right now." Blythe had finally made contact with whoever was in charge, Jonathan could only listen and surmise what the person on the other end of the connection was saying.

"There's just myself and Agent Spitz."

"That's a very long way, sir!"

"Yes, he's cooperating. After a fashion."

"I don't know sir, the controls don't make a lot of sense to me. There's just a steering wheel and a lot of knobs, the control panel looks like a fucking stereo or something." "Yes sir."

The conversation went on for several more minutes. The gist of it seemed to be about getting Loophole to some unknown destination to the southeast.

"That's a GPS unit?" Blythe pointed to the device in front of Jonathan.

"Obviously."

"Don't be a wise ass. Set it for Las Vegas." "Las Vegas, sir?"

"Yes. For now anyway. When we get close we'll get some more instructions."

Jonathan only nodded and did as the man asked. After a moment of adjusting and scrolling of the map the unit displayed Las Vegas which was then designated as the "Go to" point. Follow the dotted line.

Jonathan was hungry and tired. He also needed to answer nature's call.

"May I use the bathroom?"

"You have to fly this thing." Blythe hadn't anticipated such an obvious human need.

"The course is set, our altitude will hold steady at three thousand feet. All you have to do is sit here and use the steering wheel to maintain course. That and watch for any hazards." Jonathan's calm explanation did nothing for Blythe's nerves. Loophole still had an airborne escort of helicopters and small civilian aircraft that was being totally ignored.

Spitz intervened for the boy.

"I can handle that much. Go use the head." Jonathan got up and the man slid gingerly into the seat.

"Just make small adjustments with the wheel, it tends to point into the prevailing winds otherwise. Keep the GPS go to line straight ahead."

"Okay. Don't be too long."

While the boy was using the facilities the two

agents had a quiet conversation.

"Ease up on him a little, we need his cooperation." Spitz said.

"Yeah, okay. It's been one hell of a day."

"It's going to get worse before it gets better. He's just a kid even if they say he did invent this crazy thing."

"All right. You handle him then, he gets on my nerves." Blythe replied.

"I sort of like him," Spitz said, "he reminds me of a very short Mister Spock from Star Trek."

"Well like I said, he gets on my nerves."

Before Loophole had set off on it's strange odyssey Jonathan had mailed a large manila envelope to Susan Makepiece's law firm in San Francisco. In keeping with it's long tradition the United States Postal Service managed to dispatch the envelope to Anchorage, Alaska. It would be some time before the correspondence ever made it's way to the correct address.

"It's getting dark." Spitz's remark was entirely unnecessary.

"Indeed." Jonathan agreed.

"What do we do?" This from Agent Blythe.

"The safe course of action would be to land and wait for daylight." Jonathan answered.

"We can't do that." Blythe didn't like this at all.

"This craft is not equipped for instrument flying. I'm very tired."

"Keep on course."

The boy switched on the anti collision lights and

abruptly got up, indicating for Spitz to take over.

"I'm going to get some sleep for an hour or so,

wake me when we get near Las Vegas. If that's not acceptable feel free to shoot me."

Blythe managed to hold his tongue, they could

always roust the kid out of the sack if they were about to fly into a mountain or something.

"Can you handle this thing?" Blythe asked the other agent after Jonathan shut the door to his small cabin.

"I can steer it. If anything happens get the boy back in here fast."

"No problem. Christ, it's getting black out there!"

"The boy was right, this thing isn't equipped for night flying." Spitz had the feeling that he was driving down a mine shaft with no headlights.

"What's the drill when we get to Vegas?" Spitz asked.

"We rendezvous with some choppers and follow them."

"To where?"

"Damned if I know. Probably one of the spook factories out in the desert somewhere."

"So what happens to the boy? Apparently the

constitution doesn't apply to him and his family."

"He'll probably wind up building flying saucers for Uncle Sam. Do you have a problem with this operation?" Blythe never had a problem with any operation.

"I have a problem when the government throws away the rule books."

"Get over it."

After another thirty minutes the aircraft radio squawked to life.

"Slow to one five o and turn to the northeast. Acknowledge."

Spitz pointed at the boy's cabin and Blythe moved into action. Spitz then managed a reply to the unseen voice on the radio.

"Standby. We will comply in just a minute."

"Commence your turn now." The voice seemed put out by the delay.

"Shut the fuck up. We will comply when we can." Spitz too was very tired and really didn't care

who he might be talking to. At any rate the unseen voice did indeed shut up for the time being.

Jonathan was almost awake by the time that Blythe dumped him into the vacated pilot's seat.

"Slow us to one fifty and turn to the northeast, if you please." Spitz realized just how dependent they were on the boy.

"Where are we going?" It seemed like a reasonable question.

"I really don't know, kid. Just do it."

The radio told them to turn off their anti collision lights and to follow them. A frequency shift for the radio was also ordered, too many ears could be listening on the guard channel. Following 'them' involved trying to keep the dim red light ahead of Loophole centered in the Lexan pilot's window. Were they going to the fabled Groom Lake? Papoose Lake? Or was it someplace even more obscure?

Loophole was being swallowed up by the night.

The altimeter said that they had been slowly descending for the last five minutes, then the radio came to life.

"Landing lights, now." The two helicopters switched on their lights, Jonathan followed suit without being asked. With all of it's warning beacons and spotlights on Loophole was a very bright object, the ground was becoming visible beneath the UFO. So far their were no buildings anywhere in sight.

"Where the hell are we?" Blythe asked the boy.

"I don't know," Jonathan replied, "the GPS unit only shows the highway system and there aren't any roads showing out here."

"Look, we're over a dry lake, I think!" Spitz said.

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"Maybe it's Groom, this whole stupid state's half dry lakes." Blythe replied.

They weren't over Groom lake but one of it's smaller cousin's. Landing pad lights suddenly came on around two circular areas. A bit further on light spilled out of opening hanger doors. Apparently this place didn't normally advertise it's location at night (or any other time).

"Proceed directly inside the hanger and power down. Acknowledge."

"Understood." Spitz said into the microphone.

"Can you do that?" Blythe asked Jonathan.

"Probably." The boy lowered the landing struts and slowed Loophole to almost a walking pace.

It was very bright inside the large hanger as Loophole drifted silently inside. There were perhaps a dozen people waiting off to one side, none of them wore uniforms. Three of the people were Professor Wilde and his wife along with Fred

Withers, this did not surprise Jonathan at all but he was very relieved that they were at least alive and well.

Loophole stopped and rotated to face the small group of people, then it gently touched down on the concrete.

"Shut off everything." Blythe ordered. Jonathan silently complied, what else could he do? Lowering the ramp was the first thing he did, turning off the generators was the last. A rather plump middle aged man climbed the ramp and entered the UFO, at least he wasn't carrying a gun.

"Welcome to Site Fifteen, Jonathan. My name is Alfred Twining, call me Al." The man extended his hand to the boy but Jonathan coldly refused to shake and said nothing. After an awkward silence Twining turned to the two agents.

"Were there any problems getting here?" "All things considered, no." Blythe replied. "You all look tired, we'll pick things up in the morning. Follow me."

A tearful Jennifer Wilde grabbed the boy first in a crushing hug, her husband was next in line.

"Christ son, are you all right?"

"Yes sir, just tired. Have they mistreated you all?"

"Not really, unless you count kidnapping." Fred then picked up Jonathan and proceeded to pound on the boy's back.

"Damn! We were worried spitless about you, kid! Where the hell have you been?"

"Botching things entirely. I'm afraid events have gone as bad as they possibly can."

"We're not beat yet, don't let the bastards get to you!"

"No sir."

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Professor Wilde guided the exhausted boy through a hot shower and into a military style bunk. The man was both thankful that Jonathan had survived his odyssey intact and enraged at what his own government had done to them all.

The living quarters were rather spartan and the food left a lot to be desired but at least they were all together again. Together as prisoners.

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Chapter Nine

Interrogation

Breakfast together was almost nice. They had been left alone by their captors for the morning meal in the corner of the small cafeteria style dining area. The table was probably bugged but they didn't really care.

"Where did you go first?" Professor Wilde asked Jonathan.

"I decided to follow our original plan and proceeded to Lake Tahoe."

"How did Loophole perform?"

"Oddly. We should have done some simple wind tunnel tests, it starts to oscillate badly above two hundred miles per hour. Left alone it will turn into the wind."

"Any malfunctions?"

"No, everything worked as intended. Night

flying was perfectly awful."

"You flew at night?" Wilde asked in total amazement.

"I had no choice. In the end it made no difference, here I am."

"Here we all are." Wilde agreed. What was to become of them?

Two very large men in casual civilian dress approached the table as breakfast was being finished. From their bearing and attitude they could only be part of whatever security force this place had.

"Jonathan, please come along with us." Large person Number One asked.

"I would prefer to remain here."

"I would prefer not to carry you." Number One replied calmly.

"Go along with them kid, stay cool. The jerks in charge here like to ask a lot of question." Fred advised. "Very well. They may not like my answers."

Jonathan rose from the table and followed along with the two security 'people'. It didn't surprise the boy that the walk would involve an elevator ride, apparently a good part of this installation was underground. Eventually he was ushered into a meeting room, Alfred Twining was there, the rest were strangers. Agents Spitz and Blythe had either left the installation or were occupied elsewhere.

"Welcome again, Jonathan." Twining began as he motioned to a chair at the table, "Did you sleep well?"

The boy said nothing as he sat in the chair. He gazed around the table at the people seated there with absolutely no show of emotion.

"We apologize for bringing you here like this, it is a matter of national security." Twining said.

"I believe the proper term is kidnapping."

Jonathan replied evenly.

"Son, the government doesn't kidnap people."

"Abduct, grab, snatch, waylay, arrest.

Whatever term you prefer."

"It is protective custody." Twining was starting to lose a little of his warm and friendly act.

"May I ask what it is that we are being protected from?"

"There are any number of countries who would be very happy to truly kidnap you and your people and do with you as they please."

"And how would that be any different from our present situation?"

Twining took a deep breath and paused for a moment. Perhaps another tack might be better for now.

"Our people have been examining that remarkable craft of yours. I must confess no one here understands the principles involved."

"That is certainly no surprise." Jonathan

answered in his infuriatingly calm manner.

"A high IQ is no excuse for being rude and insulting. You would do well to remember the position you are in here!" Twining was definitely staring to lose his composure.

"What is my position? You have the inertial tap technology, a troop of monkeys could duplicate the components and refine them. Why are you really holding us? Might it be to keep the world from benefiting from this new and clean and free source of power?"

If you had known the boy for some time you might have detected some anger in his voice.

"You conceived and guided the inertial tap to fruition. This country needs your cooperation, it is your patriotic duty to help, to teach the theories involved." Twining explained, trying to control his temper.

"I would be glad to do just that in a public forum, not hidden away in this underground prison." With that Jonathan stopped talking altogether, no amount of wheedling and threatening could get another word out of him.

"Take him back to his room and lock him in. No contact with the others for now. Let him think some more about just where he is."

Loophole and it's intrepid pilot had disappeared into the Nevada desert but not from the headlines and not from television. A firestorm of demands to know and threats of congressional investigations was brewing. The White House pleaded ignorance despite the eyewitnesses in San Francisco who insisted that men identifying themselves as FBI agents had boarded the UFO. Everyone who knew or had even casually met the Wilde's or Jonathan Grant were interviewed by the media. The White House was depending on the

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nation's short attention span. If enough time passed the people would become bored with the whole thing and only a few conspiracy nuts would be left to carry on. It would not be the first time the nation's leaders had survived a crisis simply by ignoring it.

The full potential of the inertial tap was finally being comprehended by the few people who really mattered. A quiet conversation in the Oval Office between the President, his National Security Advisor and a select few from the CIA and the DIA was underway.

"Inside of a year, six months if we really push it, we can have a base on the moon or even on Mars. We can put payloads into orbit the size of the World Trade Center. No more rolling blackouts because of all of those lawsuits from the green freaks." This from Doctor Barnard Holmes, a

consultant to NASA and the Defense Department.

"But can we keep the technology secret?" Asked the President. "If this tap thing finds it's way to the public the depression of 1929 will seem like a only slight business downturn."

"Sooner or later it will and must replace our sources of energy. The enviro nuts are right about one thing, we can't forever keep burning the furniture just to stay warm."

"Then we make the time to manage a smooth transition." Concluded the President. Oil and power consortiums would need time to diversify and ease the shock to society (and more important to them, to their stockholders portfolios). They would need a lot of time.

Fred Withers and the Wilde's were having a fit, to no good use.

"What the flying fuck is the matter with you

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people? He's just a kid for Chrissakes!" Fred had a tendency to get very loud and profane when properly angered. Fred was properly angered.

"Cool it, pops! No one's mistreating him, he just needs to think about things." Jack Krieger poked a very big finger at the angry black man, he was about a hundred pounds heavier than Fred and none of it was fatty tissue.

"Kiss my hairy black ass!" Fred was really in a froth.

Krieger just turned and left the man to yell insults after him, he could have literally dissected the older man with his bare hands but he had orders not to hurt any of them.

Kreiger followed orders without question, any orders. That was the most frightening thing about the man.

Loophole was being dissected, literally. The

tap powered generators had already been removed. Work was underway to remove the drive tubes. There was nothing else of real interest about the UFO, without the tap units it was just so much crude junk to the engineers and scientists at Site 15. The Wilde's, Fred Withers and Jonathan had put so very much into building what they hoped would lead humanity out of the darkness and into the light. Now it was all just a circular pile of junk. It hurt, a lot.

Eventually Jonathan was let out of stir, in reality it had only been about six hours. After more hugs and kisses from Misses Wilde the boy and his family were escorted up to the hanger. The engineers had a lot of questions. If The boy was upset by the sight of Loophole undergoing disassembly he gave no sign, the others were not so unemotional.

"Oh no!" Jennifer Wilde had worked as hard as anyone to make Loophole a reality.

"Bastards!" Professor Wilde muttered. Fred's remarks exceeded even this account's limits on profanity.

The team leader approached Jonathan and asked him what sort of voltages were being used to activate the tap fields.

"Sir, you may if you please, osculate upon my hairless white buttocks." The boy had overheard Fred's shouted words to Krieg.

It seemed so right somehow but Jonathan's answer once more landed him in Twining's office.

"I have been charged with obtaining your cooperation. I have also been given a free rein about how I accomplish that." Twining began.

"I would presume to take that as a threat." Jonathan replied evenly.

"You would presume correctly. Your intellect is a great asset for this country but assets can always be liquidated. Consider your family."

Jonathan was silent for a time before answering, he knew this moment was coming anyway.

"Very well. I will cooperate as required. If any harm comes to my family that cooperation will cease."

"Then we have an understanding. Now get back to the hanger and properly answer any questions put to you."

Jonathan did exactly that. Professor Wilde and the others asked just what had occurred in Twining's office and why was the boy now working with the engineers.

"We must survive this place. To survive we must all cooperate for now. Perhaps our circumstances will improve with time." The boy's words had a sobering and chilling effect on the adults. Defiance and bravado have their time and place but it was becoming apparent that they had little place just here and now. In San Francisco Susan Makepiece had been raising as much legal hell as you might expect, so far to no avail. Even a court order requiring the FBI to produce and allow access to Jonathan Grant had ended at a dead end. The Bureau simply denied any knowledge of the whereabouts of the boy or his guardians. The law firm of Hale and Abrimowitz had always retained a number of very competent private investigators, none of them had a clue about where the boy was. The usual offers of cash to the right hands also ended with nil results.

At Stanford university there were combined student and faculty protests. It was an odd sight to see the math and physics nerds participating in such events.

A Tale of Two Evolutions

"What do you estimate is the maximum amount of thrust this unit can produce?" Henry Cummings had a degree in electrical engineering and so far understood very little (nothing) about the inertial tap.

"It is limited only by the structural limits of the tube and the resistance in the coil wiring. Given zero resistance and unlimited tensile strength there is no real limit to the thrust. As a practical matter using cooled super conducting wiring and a much more massive casing might produce a thrust in the million ton range." Jonathan's calm explanation left the man stunned.

"A million tons?" Cummings asked in a low voice.

"Yes sir, give or take."

"This thing could power a starship." Henry did understand that much.

"At a steady one gee of thrust it would still take a manned craft a number of years to reach even the closest star." Jonathan replied. "An unmanned

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craft maintaining a steady acceleration of perhaps one thousand gee's could achieve a good percentage of the speed of light. It might also be possible to use a variation of the tap to generate localized distortions in the space time continuum that would create a sort of cosmic 'short cut'. So to speak."

"Do you think that's really possible? A sort of warp drive, like in the movies?"

"I believe so, given enough time and research."

Professor Wilde was listening to this exchange with some amusement. The boy did have a very polite way of making well educated people feel like they were probably better suited for cleaning stables or perhaps even running for elected office.

"You mentioned a 'variation' of the tap, could you explain that?" Cummings asked.

"Do you understand the tap as it exists now,

sir?"

"Not fully.... to be truthful not at all." Cummings conceded.

"Then with no disrespect intended I cannot explain a variation of something you presently do not understand."

Cummings turned to Wilde and asked him if he understood the tap.

"The theories involved have better helped me to understand my intellectual limitations," Wilde replied, "don't feel bad."

"Thank you for that." Cummings didn't feel so bad, just obsolete. Humanity's replacement was standing in front of him wearing a rather grubby Bart Simpson T shirt and faded blue jeans.

Henry Cummings stood five foot six and weighed one hundred and thirty two pounds, he was not given to heroism or strong emotions. That evening in his quarters he did vow to himself that come hell or whatever he would get that boy to a safe place. He would do whatever he could to help mankind's coming successors reach the stars.

"Jonathan needs some clean clothing, we all do." Jennifer Wilde was making Twining feel a little like he was in the principal's office. Indeed Jennifer had once been a grade school principle.

"I will arrange for some, it will take a day or two. This site is very remote."

"Some fresh air and sunlight too." She continued.

"It gets very hot here during the day." Twining countered.

"In the early morning hours, then. I doubt there is anywhere to run to out there."

"Very well, some time outdoors in the mornings."

"We have no radio or television. No internet access."

A Tale of Two Evolutions

"No to all three of those."

"I see." Jennifer had thought it wouldn't hurt to ask. "How long are we to be held here?"

"That I don't know. There is some work at Sandia Labs underway, they want Jonathan to give a closed lecture to some of the people there."

"That's in New Mexico, we would all be so much more comfortable there. Surely..."

"Just the boy," Twining interrupted, "and just for a day or two."

Jennifer Wilde knew that Jonathan would never agree to being separated from them, even for a brief time. She had once insisted that the boy eat some of his lima beans at dinner and had been tactfully informed that lima beans were never intended for human consumption. She served him lima beans for a week to no avail, it was as close as she ever came to being truly angry with him. Jonathan was capable of being incredibly stubborn when pressed to it.

That evening Jennifer related her conversation with Twining to the others. Like all of the conversations they had together the four prisoners had to assume that other ears were also listening.

"Perhaps you should go, Jonathan. It would be just for a day or two." Professor Wilde suggested.

"I think that may be unwise, sir. Apart we would be easier to manipulate. People have been known to simply disappear."

"Surely you don't think....?"

"I do!" Fred interrupted. "These mother...these bastards are playing hardball and right now we're the ball!"

"They may use force and simply take you there." Wilde countered.

"I will not go without you." Jonathan ended the argument, the others knew about arguing with the boy.

The scientists at Sandia were demanding to have the inertial tap's creator explain his theories in person. People were leaning on Twining to produce the boy and very soon.

"Four people can travel as easily as one." Jonathan explained evenly.

"Security gets four times as hard. Pack a change of clothes."

"No sir. Also I still don't have a change of clothes and I have run out of clean underwear from my supply that was in Loophole."

"Then get that so called mother of yours to wash them. You are going to Sandia!" Twining really hated trying to argue with this kid.

"You can of course force me to, your security people are very large. You cannot as a practical matter make me say anything of use to the people at Sandia."

"Perhaps watching Mister Withers getting

beaten to a pulp might persuade you."

"If you are capable of doing that then you are capable of eliminating any or all of us. Allow the four of us to go together or bring the people at Sandia here."

"Do not dictate to me." Twining's voice had become very quiet.

"I do not, sir. We are all of us at your mercy, we have no civil rights here. That does not mean we must cease to be human just to save ourselves."

"Do you know how many different kinds of physical pain exist?" Twining asked softly as he got up and came slowly around the desk.

"No sir. Do you truly appreciate just what you have said? I must ask what motivates you, sir?" Twining's nostrils flared slightly as he fought for some self control, he had just slapped the boy hard across the face.

"You are going to Sandia. Now get out of my office!"

A Tale of Two Evolutions

In the end they simply picked up the struggling boy and carried him to the waiting aircraft, Fred and the Wilde's had been locked in their quarters. Twining was showing just an amazing lack of common sense in handling Jonathan and his family. Had the man really thought about just what the boy would say to the small audience of scientists?

During the flight aboard the business jet Jonathan sat by himself, alone with his thoughts. Henry Cummings was aboard, he had managed to persuade Twining to let him attend the lecture, he too would have things to say to the scientists.

At Kirtland Air Force Base in New Mexico the jet taxied to a remote parking ramp where everyone was hustled into an SUV with heavily tinted windows. It was midmorning when Jonathan and

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his escorts were finally ushered into the small auditorium at Sandia. The were perhaps thirty people in the audience, all sitting together in the first two rows. Henry Cummings took a seat also. The small raised stage held only a large blackboard, the boy was fitted with a wireless microphone as his audience whispered among themselves. Jonathan stood alone for moment as he regarded his audience, finally he began to speak.

"I have been brought here to explain the theory of the background inertia tap. I am here because I am forced to be here." Twining already had a bad feeling.

"Professor Wilde and his wife along with my good friend Fred Withers are at this moment being held hostage at a place called Site Fifteen in the Nevada desert. The good Mister Twining over there," Jonathan gestured to where his nemesis was sitting, "has threatened them with harm if I do

not deliver a proper lecture."

By now the small auditorium was getting very noisy with the voiced outrage of the assembled scientists, they had been told nothing of what was occurring at Site Fifteen.

Twining rose and moved toward the boy on the low stage, Henry Cummings stood up and shouted at him.

"Let him tell the truth, you miserable bastard! The audience stood as one and joined in the verbal barrage aimed at the intelligence officer. A number of the scientists moved to surround the stage preventing Twining and his two security men from hustling the boy out of the auditorium.

"Tell them the rest, Jonathan!" Cummings yelled.

Jonathan did tell them. He told about the construction of Loophole, the plans to let the world have the knowledge. He told them about his family

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being seized at gunpoint, about the jets sent to shoot him down. About the FBI agents who took over Loophole in San Francisco, the threats and the imprisonment at Site Fifteen.

Twining was losing control of this situation, in fact he did lose control. People needed to be notified.

The White House

"Seal that installation, all of it!" The President had visions of his own resignation, if he was allowed that much.

"It's a very large place, sir! Then what do we do?" The Chief of Staff was having thoughts of a retirement in a foreign country.

"I don't give a shit if you have to seal off all of New Mexico! Shut it all down and get that little shit out of there!" A Tale of Two Evolutions

San Francisco

Susan Makepiece was puzzling over all of the odd rubber stamps and postmarks on the padded manila envelope that the mail boy dropped on her desk. Then she focused in on the return address. "Jonathan!"

The woman tore open the envelope in a rush, inside was a CD R in it's own envelope and a letter from the boy she had grown to care so much for.

Dear Ms. Makepiece,

If you have received this letter and the enclosed CD R without any word from me then events have gone very wrong. It is of vital importance that the contents Smart

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of the CD be distributed as widely and as rapidly as you can manage. There may be some considerable personal risk on your part if you chose to disseminate the information on the CD, use extreme caution. You should view the contents of the CD first and then decide your course of action. Whatever you decide to do I will always hold you in high esteem.

With respect,

Jonathan Grant (signed)

"Christ!" Susan Makepiece did as the boy asked and put the CD R into her desktop PC. It was a PDF document, the computer took over and then displayed what could transform humanity.

"Oh my God." Susan whispered to herself after reading the first page.

"I need to talk with Schimmer!" Susan decided.

A Tale of Two Evolutions

Benny Schimmer kept Hale and Abrimowitz's considerable computer network in working order. Benny was also a total wizard about matters involving the Internet.

"What is the best way to get what's on this disc to the most people on this planet in the shortest amount of time?" Susan Makepiece was Benny's secret love, unknown to her. Benny looked like the archetypical nerd (acne, pocket protector).

"What is it?"

"Answer my question, please!"

"A monster data base of e mail addresses and news groups, special servers tasked to handle it. It would cost a big penny." Benny replied, a bit put off by the woman's urgent attitude.

"I need you to devote all of your time to making it happen as fast as you can. I'll square it with management, charge any expenses to the firm. There will be a big bonus for you even if I have to pay it myself."

"Cool. Now what is it?"

"A better world, Benny. You can make it all happen. History books will mention you." "Cool."

Chapter Ten Chaos

Even flabby and pasty white scientists can get totally pissed off. What had happened to Jonathan and the well respected Professor Wilde had turned the normally mild research scientists into more elemental beings.

"Let's get him to the media center!" Maynard Belkin yelled at the others, his bleeding and broken nose not withstanding. Twining and associates had put up a considerable struggle.

"No! Better to get him away from the lab installation entirely, we need media coverage to keep him safe and to keep our own asses in one piece, but not here!" This from Francis Drummond who specialized in laser research.

Jonathan was willing to do whatever they wanted, his thoughts were mostly about the people he had

left behind at Site Fifteen.

Twining and Company were left tied up in the auditorium (duct taped actually, the installation used a lot of the stuff). A caravan of about twenty vehicles then simply drove Jonathan out past the protesting security guards at the main entrance. Free from the constraining bureaucracy the scientists would quickly devise ways of keeping the boy out of the hands of the government, in truth they were enjoying the whole thing immensely. Sandia Labs was revolting.

The situation at the White House was going from bad to grim, they had managed to lose track of the one small person who could cause the downfall of the entire administration.

"We need someone to toss off the sled." The President decided. The man seemed to be aging a

year every few hours.

"CIA," the Chief of Staff replied, "he's a miserable bastard anyway."

"No. He knows where all of the skeletons are and would drop a dime on his own kids to save his hide. We'll lay it on FBI, they did the most of the dirty work."

"Then the story is that we were out of the loop?"

"Entirely."

Benny Schimmer was also enjoying himself immensely, he was spending money that wasn't his and pleasing his secret love at the same time. After crafting together a convincing and eye grabbing web page and placing it on ten high capacity servers spread across country Benny set up the mass e mail program. Most people would of course simply delete the message as spam, Smart

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enough would not and the cat would be totally out of the bag, forever. The e mail message was titled simply "Jonathan Grant's Invention" and contained multiple links to the servers that would download everything one needed to know to begin tinkering in the garage.

At Site Fifteen Jack Krieger had two orders to obey. The message from the White House told him to take the Wilde's and Fred Withers into Las Vegas and quietly release them. The other call had been less coherent and was from Twining. Twining's instructions were for Krieger to take the prisoners out into the desert and dispose of them, something the security agent would have had no trouble with.

The White House outranked Twining and it was their order that he obeyed.

"Get ready to leave in ten minutes." Krieger

ordered as he unlocked the Wilde's tiny living quarters.

"Where are we going? Where's Jonathan?" Jennifer asked, suitably alarmed.

"Vegas. You're being cut loose. I don't know where the kid is, he gave Twining the slip at Sandia, he had a lot of help. Now get ready to travel."

Krieger left them alone for the moment and never mentioned what Twining had ordered.

"I'll bet the people at Sandia simply took Jonathan away from Twining and his goons!" Wilde exclaimed as they made what small preparations they could for travel.

"That boy must have given a hell of a lecture to get those geeks so worked up!" Fred added.

"He's free, for now anyway. With some luck he'll stay that way, ourselves too."

Three hours later Professor Wilde and his wife

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along with Fred found themselves standing somewhat bewildered on the sidewalk in front of one of Las Vegas' more garish sin palaces. After the helicopter flight Krieger had driven them there from Nellis Air Force Base himself. The man had ordered the three out of the car and then their jailer had simply driven off into the afternoon heat, where he disappeared to was anyone's guess.

"What do we do now?" Jennifer asked as they stood in the blazing heat.

"We get the hell indoors!" Fred's suggestion made the most sense. Their money and credit cards had been returned to them, they would get a room in the resort hotel and try to gather their wits about what to do next.

Then they would make a lot of phone calls.

Jonathan's host for the time being held a doctorate in physics and also had a black eye. The

last time the man had been in an actual fight he had been in a bar in Saigon during the war.

"Jonathan! Come look at the TV, hurry!" David Hanson called from the living room, the boy was in the upstairs bathroom toweling off from a hot shower.

Still damp and wrapped in a large white towel Jonathan made a quick dash down the stairs.

"What is it, sir?"

"Look." Hanson pointed at the CNN talking head.

"....internet traffic has overwhelmed some of the web sites. It appears to be the real thing and not a hoax, there are construction diagrams and lengthy explanations of the background inertia tap. Two sorts actually, a power generator and what must have propelled that amazing UFO that disappeared some days ago. So far there is no word on the whereabouts of Jonathan Grant or his guardians. Reports are ..."

"Thank you, Ms. Makepiece." Jonathan whispered.

"What's that?" Hanson asked as he turned down the sound on the TV.

"Susan Makepiece, my attorney. I sent her a letter and CD to distribute on the web."

"Apparently she did just that."

"Yes sir." Jonathan felt safer than he had in some time, there were no more secrets to guard. Now what had happened to his family?

"We've decided that the safest thing for you is to get you in front of as many television cameras as possible, to make you a very visible person." Hanson explained as Jonathan came down the stairs. Four of the other scientists from Sandia had gathered in the living room for a late afternoon planning session, the boy had been taking a needed catnap while they met.

"Yes sir. Has there been any word about....?" "Not yet. We don't think they will be harmed, what would be the point? It may just be a case of making connections with them."

"I do hope so, sir." Indeed the boy did pray so.

Hanson and the boy's conversation was interrupted when one of the other scientists reached over and turned up the muted television. Professor Wilde was being interviewed, at his side was his wife and Fred Withers. The nightmare was over.

Or was it just beginning?

Two days after being reunited with his adopted family Jonathan spent two hours on network television in a live interview. There were no

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commercials. The interview did not lack for an audience.

"Who do you believe ordered your arrest?" The softball 'adult to kid' questions were out of the way. The female interviewer knew she was in the biggest spotlight of her long career.

"The President." Jonathan wasn't the sort to beat about the bush.

"How can you be sure of that? The White House denies knowledge of the FBI's activities."

"I overheard several references to the White House while at Site 15. It was obvious where orders were coming from. I don't believe that Air Force fighter aircraft are under the control of the FBI, nor indeed any of the military."

"You have stated that Air Force fighters threatened to shoot you down near Reno?"

"Yes ma'am, I was able to communicate with them. They were reasonable and had not been informed that I was piloting Loophole and that it was a civilian experimental craft."

"There was a report of four fighters making an emergency landing at Reno."

"Yes ma'am. They were low on fuel."

By the time the interview ended there were a great many very angry people in the United States. The President resigned the following morning. The Vice President had always despised his boss and ordered the ex president's immediate arrest, along with his entire cabinet.

One week after the release of the inertial tap plans on the internet the first working models began to appear in the general population, indeed around the world.

An out of work mechanic outside of Anchorage installed a thrust tube in his defunct '89 Mustang, it

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had a blown engine anyway. The mechanic, Jerry Blimford, hadn't paid a great deal of attention to the cautioning words in the plans to use very low voltages in the field controller. Jerry was going almost one hundred and seventy miles per hour by the time he reached the end on his long rural driveway. By good fortune the thrust tube broke it's mountings and the power leads snapped, Jerry will make a full recovery, eventually. The Mustang will not.

The small town of Bingham (population ninety three) in southern Idaho state sent a rather curt letter to the power company and then disconnected themselves from the power grid. They also switched to all electric heating and had words (two) for the fuel oil and propane suppliers.

These events began to be the norm, stockholders were taking serious note of the energy corporations in their portfolios. It was all

interrelated, try to imagine just the businesses that in one way or another depend of the products and services that use oil as a fuel source. Auto manufacturers, aircraft, parts suppliers, the corner gas station and quickie mart. It is an endless list. Never mind coal and hydroelectric (even solar and wind power).

The world's stock markets totally collapsed ten days after the inertial tap became public knowledge. 1929 would indeed seem like a picnic. Governments began to fall.

Riots.

Revolutions.

Wars.

The first death threats starting coming in after three weeks. Jonathan and the Wilde's were being blamed by a lot of ruined people for their plight. In a way Jonathan was to blame, his invention had changed the world's reality in the space of a few Smart

days.

It was time to disappear.

A Tale of Two Evolutions

Chapter Eleven A Different Life

Jonathan, Fred Withers and the Wilde's quietly drove away from the lives they had known and into the predawn chill. Jennifer Wilde had a sister in rural southern Oregon, the closest neighbor was three miles away. Now if they could just drive the five hundred miles to get there. There was almost a quarter million dollars in gold coins hidden in their minivan.

"At least they're still selling gasoline." Jennifer observed as they moved onto highway 101 and headed north.

"Yeah, twenty two cents a gallon! Isn't that a hoot!" Fred laughed.

"Not if you don't have the twenty two cents, a lot of people don't." Professor Wilde replied. Cash

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had quickly become king, gold was Emperor of The World.

Indeed even with the collapse of oil prices many did not even have the money for the cheap gas. The average family usually had very little in the way of savings. IRA's and retirement plans vanished overnight. Cars were just beginning to appear on the roadways powered by crude inertial taps, small shops were opening that did the conversions, if you had the money. It was illegal to convert a vehicle but people were paying less and less attention to anything the government was saying. Odd flying craft ranging from lawn chairs to large RV's could be seen from time to time drifting by overhead. These too were very illegal but their owners tended to be armed and had little patience with any police interference.

Professor Wilde thought it best to keep as low of a profile as possible and had opted for the

minivan and it's conventional gas engine. Jonathan had agreed with the need for secrecy but had almost revolted at getting his hair dyed and then having to wear 'girl clothing' for the trip.

"It's just for the day," Jennifer Wilde explained for the tenth time, "we can't have you being recognized."

Jonathan said nothing, as usual. It would have been easier for him if Fred didn't grin and chuckle every time he looked at the young 'girl' sitting next to him in the back seat of the minivan.

Everyone in the minivan was armed, even Jennifer had a small .38 in her handbag. Jonathan had a 9mm derringer up under his skirt. Fred had a sawed off pump twelve gauge down on the floor by his feet. There had been reports of bands of roving looters on the highways, a lot of desperate people wanted whatever you had. The nation's many gun laws were by common consent being ignored by the general population. Don't ever try to tell a

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person with any backbone that they can't protect themselves and their families.

The sun was coming up as the small band of refugees passed through San Francisco. The streets were even quieter than normal for this hour, it was the best time of day to be in a big city. The gangs normally didn't stir themselves very much until after noontime.

They crossed the Golden Gate without incident and didn't stop for gas until another four hours had passed.

The van turned inland at Crescent City, they were not far from Jonathan's home but to go there would have been madness. As they crossed over the border into Oregon there was a roadblock, too many destitute Californians were streaming north from the Golden State. It was all very much unconstitutional but Oregon was charging a fee for entry, they had their own problems and the state

needed the cash (or preferably, the gold).

"One ounce of gold per person or turn it around!" The uniformed state trooper leaned down to give the bad news to Professor Wilde.

"Yes officer," Wilde gave the man his best smile, "here's five. Perhaps you can find a place for the extra coin?"

The trooper replaced his frown with a grin,

somehow the extra coin was made to disappear.

"Where are you folks headed?"

"To my sister's place, east of Medford." Jennifer explained as she leaned over to talk. "We're going to help out on their farm."

"Wait here a minute." The trooper walked over to his patrol car and opened the trunk. In a moment he was back with two rather battered Oregon license plates.

"Pull over up there a piece and put these on, people don't take kindly anymore to folks coming up from the south."

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"Thanks, officer. We intend to be no burden on the state of Oregon."

"Good enough. Drive careful." Money does talk, especially golden money.

The Wilde's two grown children, Richard who was twenty two and single, and Patricia who was twenty and also single had arrived at the farm a week earlier. They too were refugees from the chaos. Jennifer's younger sister Mary and her husband Bill Murchison ran a dairy farm and raised vegetables and berries on the side. The farm had always been short on enough people to operate efficiently, now it would have plenty.

"Mom! They're here!" Helen was the youngest Murchison child, she was eleven and would one day drive all of the boys insane.

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A great deal of hugging and crying ensued, also a great deal of laughing and kidding at Jonathan's expense.

"Ooo! Nice skirt, Jonathan!" Freddie Murchision was thirteen and might have been more circumspect in his remarks if he had known that the very famous (infamous?) boy was armed.

"Thank you," Jonathan replied in his patented deadpan, "it is rather cool and comfortable to wear on a warm day like this."

"It's probably the lace panties that keep you cool."

Everyone was trying to hold themselves together at this interchange between the two boys.

"No," Jonathan replied as he pulled up his skirt in front of everyone and reached into his Fruit of The Looms, "I think it's this." He then held out the double barreled 9mm derringer and handed it to the open mouthed Freddie.

Freddie stopped his ribbing at this point.

"Come on Jonathan, grab your bag. Let's go

to my room and get you into some decent clothes." "Thank you so very much."

That evening at dinner there were more serious matters to discuss.

"Money is tight, hell money is pretty well nonexistent around these parts. Things are mostly trade and barter." Bill Murchison explained, trying to not sound like he was being imposed upon by the influx of extra mouths to feed.

"There's almost a quarter million dollars in gold coins hidden in the van, will that help out?" Professor Wilde replied quietly.

It was suddenly very silent at the large table.

"Are you serious?"

"Yes. You can thank Jonathan for that, it's his money."

"Our money, sir." Jonathan corrected.

"Sweet Jesus."

"My funds in the offshore accounts seemed to have evaporated, consider what we have brought here as part of a community fund, take what you need."

The boy's simple words lifted a great burden off of the Murchison's, what was left of the banking system still held the mortgage on the farm. It took a while for the man to find his voice.

"The banks have adjusted what everyone owes them, eight thousand dollars will pay off our mortgage. It used to be almost three hundred thousand."

"Then go and pay off the mortgage, sir." "I believe I will. Thank you, very much." "Thank you, sir. For taking us in."

The government was finally stirring itself to some meaningful action, people needed jobs,

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unemployment was pushing forty percent. NASA was going to build some very large spacecraft and they would all be manned. Large public works projects were being started, never mind that the government was essentially broke. Large hydroelectric dams needed tearing down, power lines needed dismantling. Polluted refinery lands had to be cleaned up. Nuclear reactors were on the list also. It would all take a lot of people, the pay wouldn't be much but then a loaf of bread was back down to twelve cents for the large size.

NASA and the military really wanted the advice of the inertial tap's creator but the boy and his family seemed to have gone missing for the time being.

"Put these rubber boots on over your shoes." Freddie said as he handed the pair to Jonathan. A Tale of Two Evolutions

"May I ask why?" Jonathan was only half awake, the sun wasn't even close to being up.

"To keep the cow shit off your shoes."

"Oh."

The milking barn got cleaned every morning before the cows were plugged in and again when the milking was finished, Freddie had a new helper.

"Is it always this...aromatic?" Jonathan asked, now fully awake.

"What?"

"Does it always smell like this?"

"You get used to it, I hardly smell a thing." Jonathan manned the wide shovel while Freddie did the hosing down. The place was almost spotless until the cows came home, as it were.

After two hours of smelly work it was finally breakfast time. For some reason Jonathan only had orange juice with his large morning meal and passed on the offered milk. A nap was in order but there were berries to pick and then pack for the markets in town.

Farming was entirely too much work but Jonathan managed to keep his opinions to himself. A good many people would be all too glad to simply strangle him if they knew he was here. Hard work was better than not breathing. Besides, Helen was ...well, fascinating.

The White House

"We really need that boy." The new President was in charge of a country close to total collapse. He needed Jonathan's brains safe and working for the government, for NASA and the military. It would also be good public relations when the people finally decided that a new world had arrived.

"No one has gone to the Murchison farm to check it out but that's probably where he is." The new Director of the FBI had no stomach for tying to seize the boy again, that sort of thing was over.

"Do some remote observations, if he's there I'll fly out myself and talk to him."

"Yes, Mister President."

Fred and Jonathan had set to work building a tap generator for the farm, free electric power would be a big plus for any business. More and businesses and individual homes were dropping off the power grid.

"Now how do we get sheet gold out here in the boondocks?"

"Copper will do," Jonathan explained, "it will just need a more powerful charging field."

"And where do we get sheet copper?" Fred asked.

"Perhaps pounding out a few of the gold coins might work instead, obtaining a diameter of twelve inches should be possible from a single coin."

"The way they make gold leaf?"

"Yes sir, only not as thin."

"There's an anvil in the equipment shed, I'll start pounding."

"All right, I'll see if I can come up with enough to build the field generator."

"We could go into town for some of the stuff, someone will have to eventually to get the gas generator for us to convert." Fred replied.

"It's better that we don't, perhaps later if we can't build a generator with what we have at hand here."

"I hear that, we might wind up swinging from a street light or something."

The farm was a good place to lay low, it had few visitors and when it did Jonathan made sure to stay out of sight.

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The FBI had the boy positively identified two hours after they had set up the oversized field telescope. They were a full mile away hidden on a forested hillside. Digital photographs were on the Director's desk in another two hours. Time to go see 'the man.'

"He was helping pick berries in these pictures, Mister President."

"His hair is darker."

"Yes sir, dyed. It's definitely him, Fred Withers and the Wilde's are also there."

"Then let's go talk to him, tomorrow." "Yes sir."

The Medford airport had no advance notice that Air Force One was coming, suitable panic ensued. A C 17 cargo plane was the first to touch down, it held the limousine and security vehicles.

by Richard Stotts

Both aircraft were of course now totally obsolete, within two years they would be replaced by craft with no visible means of support.

Twenty minutes after arrival and with no comment to the hastily assembled local press the Presidential motorcade was on it's way to the Murchison farm. An hour later the President's limousine turned into the one lane road that led to the farmhouse. The menacing black collection of government SUV's that provided security were rather forcefully told to stay put on the main road and to keep the trailing press vehicles at bay.

Jonathan spotted the enormous armored limo first, he decided that flight was probably useless and simply walked out of the equipment shed to face whatever was coming. Before he fully realized what was happening he was shaking hands with the new President.

"Hello, Jonathan. How have you been?"

"Fine sir."

"I apologize for the sudden intrusion, may we talk?"

By now everyone else on the farm had appeared. Fred made the few Secret Service people who rode with the President very nervous until he finally put down his sawed off shotgun.

Introductions were made all around. The President sat down for lemonade on the porch, then they did indeed talk.

"First things first. I offer my apologies and the country's apologies for the way you have been treated, all of you. My predecessor was a damned fool."

"Thank you for that, sir. I must say that I agree with your opinion of him." Jonathan replied. For now everyone else was very content to just sit and listen to the conversation between the boy and the President.

"I will come directly to the point, son. We need

that remarkable brain of yours and you are in some considerable danger living here unprotected. Can we help one another?"

"I believe so, Mister President. No more being locked up, I presume?"

"No. No more being locked up. There will have to be security people to keep you safe, a lot of people are blaming you for their problems these days. I think that will pass when they start thinking straight again."

"Yes sir, and what did you have in mind for me to be doing?"

"The country needs an objective, something to focus on while things get sorted out. We're going to go to Mars, we could use your ideas on the matter."

"Only to Mars, sir?"

"Well... What did you have in mind?"

"Mars first, then the stars. I do have some more ideas."

A Tale of Two Evolutions

Chapter Twelve Loophole II

Houston was still hot and humid, cooler weather was still weeks away. Jonathan and his 'family' had very comfortable quarters at the NASA installation, they were not prisoners. They were safe.

"We think that a cylindrical shape will be the safest, easier to seal off the bulkheads in case of fire or a hull breach." NASA's director was having his first real 'sit down' with Jonathan. About a dozen senior engineers were gathered around the table, all waiting for whatever the small genius might have to say.

"It resembles an aircraft fuselage." Jonathan observed.

by Richard Stotts

"Well, yes. We just scaled up things a bit." Director Hopkins had the feeling that the boy did not approve.

"I mean no disrespect sir, but you have here a design that worries about weight and is needlessly complex. A spacecraft using an inertial tap for it's propulsion would be best constructed in a naval shipyard and built from heavy steel plates and beams. If I may further observe, your design is too small. Think big and strong, weight is irrelevant."

It was very quiet around the table, these people had always had to fret over every ounce they put into orbit.

"But... How big did you have in mind?"

"This is only two hundred feet long and has a crew of ten. There is safety in size and numbers, make it a sphere five hundred feet in diameter and with a crew of perhaps two hundred. Gentlemen, ladies, I would suggest with all respect that perhaps half of the people sitting at this table should be

marine engineers with experience in building large submarines."

"But the weight..." Hopkins could already see the error in their thinking.

"Is something that doesn't matter." Jonathan explained again. "You could build an entire Mars base here on Earth and propel the whole thing if you wanted to. Building a large marine vessel needn't take any longer than designing and building a large aircraft. Less time, actually."

In the more repressive countries of the world things were rapidly coming unraveled. People were just starting to drift away, in a manner of speaking.

In the workers paradise that is (was) Cuba a large bus designated for tourists went missing and then underwent some radical modifications. Over one hundred ungrateful citizens of the island prison made a rather wobbly bus trip (flight) to the north,

by Richard Stotts

finally setting down in a goat pasture in southern Georgia.

Indeed, borders were starting to lose their meaning as the number of flying craft of all sorts started to multiply. The final straw was a harness that an individual could strap on, miniaturized propulsion tubes developed by the Japanese would finally put man on a par with the birds.

Midair collisions were becoming a problem, odd things were falling out of the sky. An informal 'rules of the sky' system was starting to take hold. If you were flying north you flew at five hundred feet above the ground, south was one thousand feet, and so on.

Two idiots in a large converted industrial propane tank made it to the moon and then died there. More attention should have been paid to their air purification system. A number of nations

were starting to build more serious spacecraft. Mankind would soon be leaving it's cradle.

India and Pakistan finally had it out, with nuclear missiles. An estimated twenty seven million people died in the initial exchanges. Everyone agreed that it would have eventually occurred whatever the world economic situation was. Fallout would eventually account for another five million deaths on the subcontinent.

China finally had enough of it's ruling elite, most of the military had simply walked away from their bases and returned to their families. For a time there was no government at all to speak of and the country seemed to function fairly well. Something that all governments might think about before they again raise taxes or impose onerous rules and regulations.

Israel was overrun, hesitation in using it's own

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by Richard Stotts

nuclear arsenal resulted in a predictable but smaller second holocaust. The middle east OPEC countries were at first elated that the hated Jew had finally been driven into the sea. Eventually the lack of oil income would reduce the entire region to grinding poverty, it would be an empty victory that would leave a bitter taste for generations to come.

"What a Goddamn mess!" Fred Withers' opinion of the evening news was one that was widely held around the entire planet.

"There does seem to be some calm settling in," Professor Wilde replied, "perhaps we have seen the worst of it. What do you think, Jonathan?" The evening gathering to watch the news had become a routine for the group, the boy rarely commented on the day's events.

"At times I think it would have been wiser not to have reported Grandfather's death. Millions

have died because of what I have done." All eyes were now on the boy as Wilde tried to find the proper words.

"Billions would have eventually perished without what you have given the world, we all knew that there would be a period of bad times in the adjustment."

"Cold comfort to the dead and dying, sir." With that the boy got up and went outside for an evening walk alone inside the security area, something he was doing more often these days.

"It's eating him up, all of this death. He's blaming himself for it." Jennifer Wilde had voiced this before.

Fred Withers got up to follow the boy, the time was past for gentle reasoning. "You all stay here, I'm going to set him down and put him straight." Jonathan was sitting on a bench near the center's administration building when Fred finally found him. "Mind if I join you?"

"No sir, of course not."

"I need a big favor from you," Fred began. "Sir?"

"I need you to drop the "Sir" crap and start calling me Fred."

"Yes s...Fred." It was difficult for the boy, Grandfather had always been a stickler for proper behavior toward adults.

"Good. Now I need one more thing." "Yes...Fred."

"I need you to drop the sad sack routine and stop blaming yourself for the world's problems."

"But…I.."

Fred totally shocked the boy by slapping him sharply on the right side of his head. It stung.

"That's what my old man did to me to get my attention. Do I have your attention now?" Jonathan hesitated for a moment and got whacked again.

"Do I now?"

"Yes, Fred. You have all of my attention."

"Good. Now tell me where this nutty planet was headed before you came up with the tap?" Jonathan waited too long to answer and got whacked again.

"Kid, you're gonna need a new head at this rate. Now answer me!"

"The ecosystem would have eventually collapsed, it still may if the population keeps increasing."

"And how many people would die? Be quick now."

"Billions."

"What about moving someplace else?"

"Planetary space travel is practical now, I have some ideas about generating temporary worm holes."

"So maybe we get to go to the stars? All of our eggs won't be just in this one basket?"

"Yes, sir."

Whack.

"Yes, Fred. Sorry"

"You seem to be thinking a lot clearer now."

"Perhaps it's the pain."

"It does that." With that the man stood and picked up the boy in a bone crushing hug.

"Now let's get down to work on a way get us off of this mud ball."

"Yes Fred, thank you."

The term is 'having some sense knocked into you.'

Loophole II was well along in construction, the outer hull plates were all welded on, all of the major internal components were in place. First flight would be in six months if all went on schedule. The enormous sphere towered over the NewPort News shipyard. There were by now smaller spacecraft in limited operation, just about every country with any industrial infrastructure was building something. The Germans already had a small base on the moon, the Japanese would very soon.

Loophole was more ambitious, it's first stop would be Mars. To relate all of Loophole's construction would take a very thick book. America had been to the moon, the place was a waste of time. One day it might make an excellent toxic waste dump or an open pit mine.

"Every crewman must have their own pressure suit, something that can be put on quickly." Jonathan attended all of the weekly planning sessions at Houston and had brought this subject up before

"Son, that's over two hundred suits, they take forever to make and you need two men and a mule to get the things on." Director Cranston explained.

"True. I have been designing a less complex suit that will suffice for emergencies. Think of it as a life jacket of sorts." Smart

"Do continue, Jonathan." He did, with the aid of the overhead projector

"The inner layer is an elastic Teflon fabric, very slick to facilitate quickly pulling on the suit. Bonded to the Teflon is the silicon foam layer to contain atmospheric pressure and provide insulation. This is fabricated by spraying the foam over the Teflon, all formed on a body cast of the individual crewman. One time adhesive seals at the body front, boots and for the gloves. The helmet is attached and is not removable, the faceplate opens if need be."

"Son, that thing will blow up like a balloon."

"By itself, of course. But not with this second zip up suit made of Kevlar mesh. I have designed the weave to be flexible at the joints without too much effort. Again, it is tailored to the body mold of the crewman."

"But what about cooling and heating, an air supply?" Cranston asked, still puzzling over the

complex mesh pattern.

"A total loss air system good for one hour, two perhaps. Heat and cold should be bearable for the duration of the air supply. External connections for long term air and power for a solid state heating and cooling system built into the helmet. If you heat or cool a person's head most of the body will also be likewise affected. A final coverall garment of thick Kevlar fabric for added safety, to be put on when time permits. I estimate the essential parts of the suit could be donned without assistance in two minutes, with practice. Of course more conventional suits will be needed for planned excursions, this design is for emergency use only and can be easily fabricated."

No one at the table could come up with any reason why the suit would not work, the design was just too simple and elegant. Contracts went out the next day. "Mister Withers....Fred. We need to talk." Jonathan had found the man helping with one of the many drive tube mounts on the new Loophole. Fred felt a little useless unless he was building something.

Jonathan and his family had made the move to NewPort News, Loophole II was there.

"What's cookin' kid?"

"I have another idea."

"Oh shit! I suppose I gotta build it?"

"Yes. We need to talk."

"You said that. Come on, let's head back home, my dinner alarm went off an hour ago."

Jonathan explained his "idea" at the dinner table, Jennifer Wilde had performed one of her miracles that other people just called meat loaf. A Tale of Two Evolutions

"It's a third variation of the tap. It's a bit difficult to explain properly but it will focus and 'bend' a small defined portion of the space time continuum, just ahead of Loophole."

"And?" Professor Wilde knew what was next.

"It should pull Loophole along...and through a temporary distortion."

"To where?" Fred asked.

"That's a variable that I need to do some work on. The point of focus should determine the actual distance and direction of travel."

"How far could this effect take Loophole?" Jennifer Wilde was by no means an intellectual lightweight.

"A few miles or a few light years, depending on the focus point."

"Jesus. How could we... How could you navigate?" Professor Wilde asked quietly.

"Inverse inputs should return the Loophole to it's starting point."

"Should?" Fred inquired, some skepticism (a

lot) in his voice.

"Yes. There can be no guarantees. Initial movements may be a great risk until inputs can be better quantified and refined."

It was very still at the table for a few moments before Fred asked his own big question.

"So what does this dingus look like?"

"I have some preliminary sketches. It's not too large. I thought that it would be best to install it in one of Loophole's auxiliary craft for initial testing. It could be done in deep space well removed from the Earth or any other vessel."

"Why can't it be tested here, on Earth?" Jennifer asked.

"The distortion effect with so much mass close at hand could be... rather untidy."

"You mean damned dangerous?" Fred asked. "Yes...Fred."

"And who gets to test this thing?"

"Well, I would be the logical one. It's my design and all."

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"That's too dangerous! You're too valuable to do that." Professor Wilde replied with some force.

"Well sir, then we need to find someone else who understands the theories involved and who can make the proper operational decisions during testing."

"You know damned well no such person exists, that we know of!"

"Perhaps we could place an ad in the paper, sir?"

"Very funny. I forbid it!"

Jonathan had anticipated this and had been in contact with Ms. Makepiece for several weeks now. If anyone could get him declared a legal adult it would be her.

Jonathan had yet to discuss his latest 'idea' with the NASA people, they had enough on their plate as it was. Loophole II might one day be mankind's first starship. On the other hand it might simply disappear, forever.

Loophole II did not lack for volunteers to form the crew. A crew of two hundred had been the target figure, the craft had room for many more. Current and retired astronauts were obvious choices, navy submariners with experience in air recycling and oxygen generation systems. Loophole would have a fully staffed medical unit, including a full surgical facility. Cooks (again submariners), electrical engineers, machinists. It was a diverse list.

Fred Withers would be in charge of the craft's five man machine shop. The man was in machinist's heaven as he had ordered and installed the very best of equipment and stock supplies. Loophole would be a long ways from any repair facility and would need to take care of itself. Very early on Jonathan had made it very clear to NASA that if they wanted his help he would have to be part of the crew. It didn't take much convincing, there were only three other people on the planet who understood even the basics of the inertial tap and they mostly spent their time arguing with one another about it.

Loophole II was two month from lift off when Jonathan told NASA about the third variation of the tap. There were by now daily meetings in the Directors office.

"May I speak for a moment, sir?" As always the boy was polite to the point of being exasperating.

"Of course, Jonathan." Director Cranston replied.

"I have a device that I would like to install in

Loophole's shuttle number four, sir. For testing when we are on our return leg from Mars." Everyone around the large meeting table looked at one another with raised eyebrows.

"What sort of device, son?" Cranston wondered what the amazing child had come up with now.

"It is a third variation of the tap and perhaps the most important."

"Go on, you certainly have all of our attention."

"Not to sound overly dramatic, it is a sort of warp drive."

"A what?"

"A means of using background inertia energy to cause localized distortions in the space time continuum, for lack of a better description. A means to travel to the stars."

It was so very quiet at the table for a very long time.

"This isn't a joke, I presume?" Cranston finally asked in a low voice. He knew it wasn't, the boy

had all of the sense of humor of an IRS computer.

"No sir. Fred Withers and myself have a working prototype almost completed. It cannot be safely tested here on Earth."

It was still very quiet around the table, mouths were hanging open.

"Why not?"

"It will generate a fairly large field of distortion, on the order of several miles in diameter. Anything inside that field will be....distorted."

"But... How does it...?"

"The distortion is generated in a cone directly ahead of the spacecraft creating a temporary tunnel, or worm hole. A shortcut."

"A shortcut to where?"

"The stars, sir." Jonathan had thought that much was obvious.

"Will it work?" Cranston was trying to hang onto his remaining sanity.

"I believe so sir, the risks are acceptable."

"And what are the risks?"

"Miscalculating the point of focus or field size could result in a one way trip, as it were."

"Then it is not acceptable."

"But it is acceptable, sir. If we are to ever insure the survival of humanity then we must have more than the one small place to live. It is a risk, but we cannot afford not to take it."

"And who would take this risk?" Cranston already knew the answer to that.

"Myself. No one else that I know of can understand the device or the principles that are it's basis. Mister Withers has volunteered also, he knows all of the construction details of the device and is a good person to have at one's side."

"No."

Cranston had said no but could he keep saying no? Could anyone deny mankind the stars because of the risk to two human beings? A Tale of Two Evolutions

Chapter Thirteen Up Ship

"Happy birthday, kid." Fred handed the boy a small wrapped package from across the breakfast table.

"I beg your pardon?"

"Nitwit, today's your birthday." Jennifer explained.

"Oh. It is, isn't it?"

"Twelve years old, cripes! Open the present, kid." Fred urged.

It was a blue NASA T shirt that read "Loophole II

Crew" and under that "Warp Drive Engineer."

So far the public hadn't been told of the third variation of the tap, perhaps they never would if it failed.

"Thank you, Fred. Very stylish." Jonathan

almost managed a grin.

"You're still not going to test that thing!" Professor Wilde declared.

"Actually, I am sir. NASA gave the go ahead last week.

It was going to get very noisy in a moment.

"They aren't your guardian, I am! Or rather Jennifer and myself."

"I have been meaning to discuss that very issue with you, sir. It's rather awkward but I have had myself declared by the courts an adult in all matters. Ms. Makepiece has been most helpful. I hope this doesn't seem like I am ungrateful for all that you have done for me. The tap drive must be tested, there is no one else qualified. Fred will be along."

Wilde glared at Fred for a moment, then asked with barely restrained rage "How long have you known about this?" "For a while now, it was the boy's place to tell you about it."

"Adult or not, you are not going to test that awful contraption!" This from Jennifer Wilde. Jonathan said nothing but remained as impassive as ever.

Wilde was nearly shouting by now. "I'll go public! I'll get a restraining order!"

It was very ugly for a time, Jonathan finally moved in with Fred to avoid the chilly climate and sudden storm fronts at the Wilde quarters.

The scene at the shipyard reminded many old timers of wartime conditions in which a great many large vessels were built in a hurry. Crew training for Loophole II went on even as the space craft was still being fitted out. After much pushing and prodding by Jonathan the designers had finally got into the spirit of building a massive space going vessel. Strong always won out over weight

considerations. If a weld wasn't pretty to look at that was fine, as long as the weld was sound and airtight. Fireproof was the main decision maker in interior finishing materials and coatings. If you could get it to burn something else was used. Redundant systems were the rule, especially in the air recycling equipment.

The first flight would have a crew of about half of what the vessel was designed to eventually carry, most could have private cabins (small) on this trip. A ship's commander was settled on and to no one's surprise the man was not an astronaut but a former submarine captain. Rear Admiral Winston Banks had been on the project since Loophole's 'keel' had been laid down. The man knew every weld and bolt of the vessel but like everyone else he was clueless as to how the tap actually worked, it was enough that it did work.

Like everyone else Jonathan had an

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by Richard Stotts

emergency pressure suit and like everyone else practiced getting the thing on in a big hurry. All crew members would have two suits, one hung in their quarters and the other was kept in a carrying case that was to be kept at duty or work stations. Jonathan's T shirt that Fred gave him wasn't too far off the mark, the boy was designated as Senior Propulsion Officer. It wasn't an honorary title, after all who better knew how it all worked than the person who invented it in the first place?

Shuttle Number Four was a general purpose cargo and people hauler and was about the size of a city bus. The shuttles were by now well tested and like their mother ship were very sturdy and simple to operate. Each shuttle had it's own small hanger in Loophole equipped with a massive airtight hatch. During the last month of fitting out Fred and the boy would spend most of their time getting the 'warp drive' device installed and tested. Testing didn't include actually turning the thing on

but every circuit and component was checked and triple checked. An extremely precise control system had been devised by the boy, input settings to eight decimal points were possible and needed. The device was about the size of an average refrigerator and looked like an inside out television.

There was one final and sad confrontation between the Wilde's and Jonathan. The man and his wife would finally resign from the project in protest over the boy's and NASA's intention to test the third variation of the tap.

"I am begging you, son! Please don't do this!" Professor Wilde and his wife had cornered Fred and the boy in Shuttle Four's hanger. Jonathan was never very good coping with emotional people, even those he cared a great deal for.

"Millions have perished because of the tap. If the third variation works as I expect it to mankind will have other planets to live on and to insure it's survival. You know that, sir."

"But the risk!"

"Is very much more than worth it. You know that too, sir."

"But not you! Your brain is just too valuable! You have nothing to atone for."

"Fred will be with me, you don't seem so very concerned with his safety."

"That's not fair and you know it!"

"Perhaps. In any event it is going to occur. I apologize for what I have put you through. I thank you and I do love you both. I'm not very good at expressing this sort of thing."

Wilde and his wife embraced Jonathan and the oddly silent Fred. Then they turned and left to return to California, they could not bear to be a part of what they felt would be the end of their 'adopted' son. The boy had the urge to call after them to stop but could simply not find the words. Neither could Fred.

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At last the bottle of champagne was smashed against the massive hull of Loophole II, it didn't actually move or slide down anything. The President gave a pretty good speech with Jonathan standing off to one side. The boy had of late undergone a public relations turnaround but a few people would always despise him. Those with any brains could see what he had really done. The President and his handlers had wanted the boy to speak at the ceremony, they did very well indeed just to get him to stand on the podium wearing a suit and tie.

All of Loophole II's systems were online and triple checked, all of the supplies had been loaded. The crew was mostly all aboard and spending the pre launch evening in their own cabins. Fred and Jonathan had opted for one of the larger four man

cabins, there was lots of room.

"Nervous?" Fred asked.

"Anxious, perhaps." Jonathan replied as they sat across from one another on their own bunks.

"I hope Captain Kirk (Admiral Banks) keeps the zero g shit to a minimum, it gives me the heaves."

Everyone had undergone some zero gravity training in one of the still in use 'vomit comets' operated by NASA. Jonathan had managed to keep his light breakfast but Fred hadn't.

"Take the motion sickness tablet, we'll be in Earth orbit for a good six hours of tests before the one g acceleration for Mars."

"I know. Shit!" Fred planned on no breakfast and sitting (clinging) very still at his post in the machine shop. The man could not bring himself to think about the zero g toilets.

"I wish the Wilde's were here." Jonathan softly added.

"Me too, kid. Maybe they will be someday."

"If we get back."

"Is that thing gonna work?" Fred asked.

"It will work, that's assured. Precisely how..." In any event the third variation of the tap wouldn't be tested until Loophole was on it's return trip from Mars. A return trip from Mars seemed fantastic enough by itself.

"Propulsion?" Captain Banks was going down the final checklist.

"Online and holding at minus fifty tons. Power generators are optimum." Jonathan had all but that small amount left for the helm to compensate for, then Loophole II could lift off. The boy sat belted into the airline pilot type seat to the left of the Captain, large plasma video screens replaced conventional windows.

"Helm?"

"Trajectory is laid in, control and navigation

computers are all in agreement." Loophole II's control and guidance was vastly more refined than its predecessor, even so there were manual backups for everything.

"Switch propulsion control to helm."

"Yes sir, transfer complete." Jonathan's formal job from now on was to just monitor the status of the drive tubes and power generation. It would be a boring job that others could do just as well. For now the most qualified people were all at their posts.

"Upship!" the command dated back to the time of zeppelins and blimps. There was certainly not going to be a "blast off."

Conventional landing struts were deemed impractical for the thirty eight thousand ton Loophole II. Instead, a ring of linked together vertical columns supported the craft. It was all very simple, massive springs of the sort used to shock insulate NORAD inside Cheyenne Mountain took up the load. The columns could adjust to uneven ground to a degree but the craft would always need a fairly flat surface to safely land upon. A nation and a world watched as those columns flexed and then lost contact with the earth.

"Climbing at one hundred feet per minute." The helmsman, navy lieutenant Chang was now controlling the heaviest object to ever become airborne.

Lift off had been so gentle that so far there was no sensation of any movement at all. This was fine with Fred as he sat in his airline passenger seat in the machine shop. All but the bridge crew would use salvaged airliner seats during any maneuvering, accelerations would always be under two gravities at the most. Nearly forty thousand tons of steel doesn't do anything in a hurry, at least not if the helmsman has any sense at all.

"Initiate orbital acceleration profile." Captain Banks ordered.

"Aye, sir. Increasing acceleration to one point two G's."

It was like the takeoff pressure you felt pushing you back in your seat in an airliner, except it didn't stop.

"Systems report." Banks ordered.

"Helm is on track."

"Propulsion and power?"

"All nominal." Jonathan answered.

"Life support?"

"The hull is sealed. All systems in the green." And so it went. Loophole II would pour on the coal when most of the atmosphere was beneath it. The craft had two large communications dishes folded down against it's hull that would not take kindly to excessive wind blast.

"Increasing thrust to one point seven five G's." Helm reported.

This sort of acceleration would soon have them up

to orbital speed. Achieving orbit wasn't really necessary except for a testing pause, they could have just as easily headed straight out to Mars. Now it felt like someone was sitting in your lap. Fred didn't care for it at all.

"I could be fishing right now. Shit almighty!"

A two hundred mile high orbit was reached twenty minutes later. Thrust was eased off over a period of one minute out of deference to the non astronauts who made up the bulk of the crew. Fred managed to keep his skipped breakfast, barely.

"With your permission sir, I will commence the planned inspection of the drive and power components."

"Go ahead, Jonathan. And congratulations." Banks offered his hand to the boy.

"Sir?"

"For this ship. For this true spaceship."

"Oh. Thank you sir, I did have some help."

Jonathan unbuckled his seat harness and fought to control the sensation that he was falling. Indeed he was only floating. Captain banks snagged him by an ankle and gave him a gentle shove towards the open bridge access hatch. Other crewmen (and women) throughout the ship were also starting to become unattached as they went about the planned orbital systems check.

"Fred?" Jonathan had finally arrived at the centrally located machine shop.

"In here!" Fred was trying to corral a loose box of welding rods that hadn't been properly stowed before liftoff.

"Where are the rest of your people?" the boy had at last managed to drift over to where Fred was wrapped around a drill press.

"Those pussys are all still puking their guts out in their cabins!"

"How do you feel si .. Fred?"

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"Better. How about you?"

"Better also. We need to make our rounds now, are you up to it?"

"Lead on kid, just don't expect any quick maneuvers out of me."

There were a total of forty eight main drive tubes in a ring inside the 'equator' of the vessel. Fred and Jonathan dutifully inspected each one in turn, as expected all of the devices were in perfect working order. After all they had no moving parts. After three hours of this routine all that remained to check were the tap power generators.

"Its forward main bearing sounds rough." Fred was listening to the generator's drive shaft through a stethoscope like device that auto mechanics often used.

"Let me hear." Air Force major Carl Hampton was Loophole's power management officer. Jonathan stood (floated) to one side and let more

experienced people tend to business. Hampton listened for a minute and then did the same on the adjoining generator.

"You're right. It does sound rougher. What do you recommend?"

"Take it off line and replace the bearing, a two hour job. Maybe longer floating around like this." Fred replied.

"I'll suggest to the Captain that we shut it down and wait until we have acceleration gravity to replace it, we have five other units. The ship can run on just two."

Eventually it was time for all departments to report in to the Captain. Did they go to Mars or return to Earth?

"Life Support?" Banks was almost finished with the list.

"No anomalies sir, all systems in the green." "Propulsion and Power?" A Tale of Two Evolutions

"Number three power generator remains off line per your orders. Repairs will commence when we are underway. All other drive and power components are optimal." Jonathan had the only major flaw to report. Loophole II was going to Mars.

"Very well. Unship the long range data antennas and standby for one gee acceleration. Notify Houston."

Chapter Fourteen Mars

Thirty two feet per second, per second. It tends to add up to a monstrous velocity very fast. Even so Mars was a good ways off. Until it was about halfway there Loophole would be accelerating, the last half of the way it would be decelerating. It all made for normal 'gravity' aboard the spaceship. Allowing time for such affects as the Earth and Mars' gravity and a casual midcourse turnaround, Loophole would be above the Red Planet in about five days.

The time lag in communications with Earth was making normal conversations impossible so one way messages were becoming the norm. Jonathan and Fred recorded and sent a short video greetings to the Wilde's saying that all was well and

that they felt fine. So far no reply had come in.

The dangers involved with extremely high velocities became apparent on the second day. A small rocky piece of the universe about the size of a pea impacted on the Number Two communications dish and vaporized about ten square feet of the antenna's thin metal reflector. The energies involved were high enough to have actually generated a small burst of x rays that the ship's external detectors picked up. The dish still worked after the impact, just not quiet as well. Such an impact with the inch thick hull plates of Loophole could have easily killed some people. Perhaps a lot of people.

The impact of course set Jonathan's extraordinary brain cells off on another tack.

"There ought to be a way to shield against such things." Jonathan said rather absently as he lay on his bunk. "What's that?" Fred was trying to watch a newscast relayed from earth.

"A shield device, perhaps a locally focused variant of the special drive."

"One thing at a time kid, let's see if the drive dingus works first."

"It will work "

"I know, but how?"

"You know one person can test it, you needn't risk..."

"Shuddup kid. I'm coming."

"Yes sir."

"Fred!"

"Fred."

"Why don't they just land this damn thing?" Fred was complaining about the zero g again, Loophole was in orbit around Mars.

"They're still checking out the landing sites

with the Big Eye." Harry Stanton replied. Harry also worked in the machine shop.

"Big Eye my ass! Just find a flat place and land!"

A flat place was found at the bottom of the Great Rift Valley. To date no probe from Earth had landed there. If any life might be present this was a good place to look for it.

No one had ever landed such a craft before, let alone on Mars. Loophole had slowed to almost a hover and then began a slow vertical descent over it's targeted landing site. Fred was happier, at least there was some semblance of gravity again.

"Helm?" Banks kept asking everyone for updates

"Holding to descent profile, sir."

"Propulsion?"

"Optimal, sir." Jonathan rarely had anything else to report.

Smart

"Seal all internal hatches." Banks' order was the last major step prior to touchdown. If there was a landing mishap there should be minimal air loss.

"One hundred feet." Lieutenant Chang announced.

"Fifty feet."

Time seemed to pass very slowly.

"Contact."

"Holding at minus fifty tons, sir." Jonathan once more had control of the drive tubes.

"Ease it off slowly son, be ready for an instant lift off if it goes sour."

"Yes sir."

Like giant hydraulic presses the massive landing pads of Loophole crushed the small rocks that littered the surface and then pushed a full five feet into the pale reddish soil before finally halting. Even in the light gravity of Mars Loophole groaned and creaked as the landing columns once again took the vessel's full weight. Hull mounted video cameras could find nothing unexpected.

"Zero thrust sir, it appears stable." Like everyone else Jonathan had been holding his breath. "The tilt meters are indicating zero movement."

"Very well. Let's launch Shuttle One for a look see."

Flight Lieutenant Wells (Left tenant, thank you) was on detached duty from the Royal Air Force. Very detached.

"Shuttle One is out. It all looks as advertised, Loophole appears steady as a rock. No Martians in sight."

"Damned comedienne!" Banks muttered.

"Ah, Loophole. One correction."

"Go ahead, shuttle."

"There are Martians."

"Say again, shuttle?" Banks was starting to get pissed.

"I've just spotted something about the size of house cat with far too many legs. I'll feed you the video." Wells seemed remarkably composed.

It didn't look anything at all like a house cat. More like a skinny armadillo grafted to a large spider. It was moving very slowly away from Loophole and it would have been difficult to tell which was the front end if it had been standing still.

"Ho leee shit!" Banks finally managed to say.

"I agree, sir." Jonathan added.

Below decks the biologists were having intellectual orgasms.

Mars had once been much warmer and a lot wetter. What remained of the life on Mars had retreated to the lowest places. Places where the tenuous atmosphere was the thickest, where there was a better chance to find water. Lieutenant Wells' discovery was permanently dubbed the "Mars Cat" by one and all. Apparently it was the largest animal life form left on the planet and it was a carnivore.

Smaller animals resembling overgrown sow bugs fed on the tough lichen like plants that clung to the sheltered areas. They were about the size of mice and were of course dubbed as "Mars Mice." Specimens of both the 'cats' and 'mice' were collected and brought into Loophole's biology lab. It was with greeted with some dismay when the two 'mice' and the one 'cat' promptly burst into oily flames when exposed to the oxygen rich atmosphere of the ship.

Jonathan had been poking his head into the lab when all of the excitement took place.

"Metabolism." Jonathan calmly observed.

"What?" Jane Eason still firmly gripped her fire extinguisher as she turned to the boy.

"It would stand to reason that the creatures are very efficient at utilizing what little oxygen that is available to them."

"So that made them...inflammable in our atmosphere?"

"Yes ma'am. That would appear to be the case."

"Perhaps we should just study them in the field?"

"Indeed." Jonathan just turned and left at that point, the specimens were by now only small piles of rather smelly ashes.

None of the life on Mars could not survive on Earth, perhaps just as well. At least there would be no 'Mars Plague' to worry about.

Portable structures and equipment for a small research base had been Loophole's main cargo. Bi monthly trips were planned for the foreseeable future, each trip enlarging man's presence on Mars. Ten people would remain behind after this first visit, when Loophole left they would be the most isolated humans in the universe.

Everyone on Loophole of course wanted to set foot on Mars but it just wasn't possible at the moment. Most of the crew, including Jonathan and Fred, only had their emergency pressure suits. Those with excursion suits did the exploring and had all of the fun, everyone else had to make do at the few view ports and the many video displays.

"I went to Death Valley once," Fred observed, "this place makes it look like the Garden of Eden."

"I certainly have no plans to retire here." Jonathan agreed.

Maybe there were other places better suited for humans.

But not in this solar system.

Chapter Fifteen The Third Variation

Loophole II was slowed to a dead stop halfway between Mars and Earth. It was all up to Jonathan and Fred now.

"Son, no one on this vessel or anywhere else will think the less of you if you just call this off." Captain Banks began.

"What anyone thinks is irrelevant, sir. The third variation must be tested, it has to be tested."

"Withers, will you talk some sense into this boy?"

"I've tried. Waste of time."

"Then God bless the both of you and God forgive me for letting you do this."

Shuttle Four sat bathed with brilliant artificial light in it's small hanger as the atmosphere was

being pumped out.

"What will it be like?" Fred asked as he finished buckling himself into the right hand seat.

"I have no clue." Jonathan replied.

"Sure you do, at least a guess."

"It should be very quick I suspect. One way or the other."

"No special effects like in the movies?"

"I would think not."

Fred was silent for a time before speaking again.

"Either way it has been one hell of a ride, kid."

"Yes sir."

"Fred!"

"No. Sir!"

Jonathan eased the bus sized craft carefully out of it's hanger and into the deep black of space. The boy had been consulted on the shuttle's design and had flown them several times on Earth. The glare from Loophole's white hull blotted out the stars but that would soon change. "This is Shuttle Four, commence your observation program."

"Roger shuttle, good luck and God be with you."

Loophole moved away and started a circular orbit around the shuttle. The orbit would be almost one quarter of a million miles in diameter, balancing thrust and direction would provide gravity for the mother ship. What the shuttle would do was very much in question. Loophole was prepared to wait in it's odd artificial orbit for ten days if need be, that was the limit of Shuttle Four's air supply.

Shuttle Four had been drifting for the three hours that had been agreed upon. Loophole had signaled that it was in position.

"I really hate this zero g shit. Flip the switch!" You know it was Fred who said that. "Very well. One thing to do first." Jonathan answered.

"What?"

"This"

Fred Withers had been amazed by many things in his life, none of them exceeded the boy floating over to him and giving him the strongest hug he was capable of. Then Jonathan notified Loophole and did indeed flip the switch. The universe seemed to blink.

"Oops."

Fred had never heard the boy say that before. Also the stars weren't where they used to be. The sun wasn't either.

"Don't you be giving me any of that "Oops" shit! What happened?"

"It would seem that I miscalculated the input settings?"

"Speak English!" Fred had progressed to the yelling point.

"Remain calm. We have moved further than I planned for."

"How much?" Fred demanded.

"That far." Jonathan pointed to the distant planet that was drifting into view as the shuttle slowly rotated. The planet looked blue and white like Earth, but of course it was not the Earth.

"That's Earth!" Fred felt better now, they would beat Loophole home.

"No. Look closer."

"What?"

"Look closer."

Fred did. It is very hard to faint in zero gravity but Fred came close.

Loophole II

"It's gone!" Lieutenant Chang stated the obvious. The small dot that was the shuttle was no

longer centered in the Big Eye's view screen.

"There was for just a second a sort of blurring, then nothing." Captain Banks was relaying his observations to NASA back in Houston.

"Align the number two dish towards Neptune, if they are there we should get their signal, eventually."

"Where are we?"

Jonathan had been spending the last three hours carefully examining the control inputs on the drive 'dingus.'

"My best estimate is twelve hundred or so light years beyond our target of Neptune. I seemed to have dropped a decimal point in the programming. I'm very sorry, there is no excuse for it really." It was Fred's turn to administer hugs and he did.

"Lighten up, kid. Can we get home?" "In theory. Inputting the inverse settings

by Richard Stotts

should return us to our starting point."

"Then let's do it."

"Yes. But look." The boy pointed at the planet before them.

"Oh shit." Fred whispered.

"Just a quick look. It could turn out to be Earth's first colony. It is the wildest coincidence that we are even close to a star, much less to a planet like that one."

"There are no transmissions in the RF spectrum. No lights visible on the night side." Jonathan's observations from orbit had found no signs of technology below them.

"So maybe they have spears and clubs." Fred was ever the pessimist.

"They?"

"Whoever's down there!"

"There may not be anyone down there. Or anything with any intelligence."

"Maybe. What if there are really big and nasty

critters who've missed a few meals?"

"Then we don't land. We don't need to land in any event, just take a lot of photographs and return home."

"If I ever get home I'm going to open a bait shop!" Fred was a normal sort of person and had been pushed far beyond his operating specifications.

"We'll make a slow descent. Let's break out the cameras and get them set up."

The planet had weather that included thunderstorms, Jonathan detoured far around the towering clouds as the shuttle continued to descend.

"Over there," Fred pointed, "it looks like clear weather."

"I see it. Keep taking pictures." Fred had one of the newer digital cameras clicking away, it's tiny hard drive could hold hundreds of very high resolution images.

"Check out those trees!" Fred exclaimed. There were indeed trees, forests actually. From the shuttle's one thousand foot altitude they could pass for a pine forest.

"Let's get a closer look at them." Jonathan eased the shuttle down to treetop level and then nosed up to one of the blue green trees.

"The leaves are rather narrow and flat looking, not like pine needles." Jonathan observed. There was a voice recorder going, all of their comments and narration would be a permanent record.

"Whoa! What the fuck was that?" Fred had ducked instinctively as a large brown and white something flew towards the shuttle and then veered away.

"It resembled a large raptor of some sort." "Like in those dinosaur movies?"

"No. A raptor is a bird, such as a hawk or an

owl. You're thinking of velociraptors."

"Anyway it looked like it had feathers. And claws!"

Jonathan steered the shuttle toward a clearing covered with low grasses and an occasional shrub like plant.

"Let's set down here for a bit and just watch things. Perhaps some other animals will appear."

"Yeah, well... If it's big and ugly you take off fast!" Fred replied.

"That is my intention."

It didn't take very long. Four fur covered creatures resembling fat kangaroos hopped by in front of the shuttle without so much as a glance at the craft. They were moving pretty fast.

"They just ignored us." Fred seemed a little disappointed.

"Here comes the reason why." Jonathan pointed his own camera at a blur of brown striped fur complete with teeth and claws. Lion sized.

"Shit!" Fred had almost been tempted to venture outside, not now.

"It was very fast." Jonathan observed. "Too fast. Get this heap into the air." "Agreed."

A coastline came into view as the shuttle glided silently over the new world. The ocean was a brilliant blue green and very clear in the shallows near the sandy beaches.

"Look!" Jonathan was as excited as he ever got as he pointed to something on the edge of the wide beach.

"What is it?" Fred's eyes weren't as sharp as they used to be.

"Structures."

"Say what?"

"It looks like a small village of some sort, let's get closer."

It was a 'village' of sorts and it was inhabited. "Look, people!" Fred yelled.

"No, not people. Look closer."

From a distance they did look like humans, up closer there were a number of differences. Smooth brown fur covered them from head to foot, their hands only had four webbed fingers, feet likewise with four long, webbed toes. Eyes, nose and mouth were in their proper places although oddly shaped. They had no visible ears. There was no mistaking that they had two distinct sexes. The 'natives' also didn't seem much afraid of the shuttle as it slowly drifted to a halt and landed on the beach.

"They don't seem frightened of us." Jonathan observed.

"Maybe they're too stupid." Fred replied.

"Perhaps. I would guess that they have no frame of reference for this shuttle. I don't see any evidence of fire but they are at least intelligent enough to build shelters from rocks and wood."

One of the larger 'male' natives was approaching the shuttle. Jonathan kept his camera clicking steadily.

"Christ, he's hung better than my cousin Charlie!" Fred chuckled.

"Beg pardon?"

"Never mind. Do we go out and say hello?"

"I think we had better not. We have no weapons and we know nothing about how they might behave."

"We could wind up in the stew pot then?" "Yes, and that would be most tiresome." Jonathan lifted the shuttle back into the sky and then followed the coastline for a distance.

"This planet will not do. It is already inhabited by intelligent beings."

"There's lots of room here, maybe we could get along with them?" Fred answered.

"We would eventually destroy them the same way that we did to the primitive cultures on Earth. Even the good intentions of missionaries usually resulted in a culture's demise. Cultural shock."

"Cultural shock?"

"Their lives would be totally disrupted, they could never live and evolve in their normal manner."

"Then let's go home, this place is starting to give me the creeps. As I understand it this is a very large universe, we can try someplace else."

"Agreed. After the drive is better sorted out."

"Amen to that." Fred had by now decided that he wasn't cut out for this explorer crap. He just wanted to go home.

"The settings are exactly reversed, including the decimal error that brought us here." Jonathan explained. The shuttle was a good quarter of a million miles out from the planet they had briefly explored.

"So now comes the sweaty part."

"Yes." Jonathan's hand wasn't entirely steady as he once more activated the drive. Would it take them home?

Blink.

"Oops."

"Dammit boy, stop saying that! Now what?"

"Standby a minute." Jonathan switched the communications receiver over to the long range dish that was unfolding from the shuttle's roof.

"What are you doing?" There was nothing but a very distant sun in view, that and all of the stars in the universe.

"We're back, listen." Jonathan switched the sound from his earpiece to the overhead speaker. The BBC World Service was discussing the current monetary crisis in western Europe. The signal was very, very weak.

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"So why is the sun so damned small? That is the sun, isn't it?"

"Yes. We're further out than our departure point, perhaps too far."

"Too far?" Fred had a very queasy feeling.

"We may run out of air before we get in close enough to be picked up. We need to start accelerating sunward right now. That and start sending out an SOS."

"Then do it kid, I want to go fishing."

"Yes..Fred. So do I."

The shuttle's electric heaters had kicked in, without them they would soon freeze to death. The sun was too far away to provide any useful warmth.

Loophole II

"Still nothing?" Banks, like the rest of the crew, was in a total dither.

by Richard Stotts

Smart

"No sir. They should have reported in twelve hours ago if they were where they were supposed to be." Chang had very little hope that the boy and the old man would ever be seen again.

"I'm going to use the nav bubble and try to triangulate our relative position." Jonathan was swinging open the safety hatch that covered the bottom of the lexan observation bubble on the roof of the shuttle.

"Can you do that?" Fred's knowledge of math didn't extend much beyond what a good machinist needed.

"Yes, if I can identify the proper stars it will be easy."

Using a simple sextant like device the boy spent thirty minutes or so measuring the angle between the sun and various stars that he could

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identify (he hoped) before closing the safety hatch. He didn't need a calculator to do the math.

"Well?" Fred was hovering nearby. Jonathan hadn't said anything for too long.

"We're too far out. We're out past Pluto even. The acceleration needed to get us home in time would kill us. We'll have to try using the drive again."

"Oh crap." Fred whispered.

"Yes."

"Can we do it?"

"The input device can't be set fine enough for accurate transitions and needs to be redesigned completely. There will be some considerable luck involved."

"Do we have a choice?" It wasn't really a question and Fred knew it.

Loophole II

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After a very long trip the now feeble SOS that the shuttle's main transmitter was endlessly repeating finally reached Loophole II.

"How far out are they?" Banks asked. Navigation had asked Loophole for triangulated readings on the signal as the vessel continued it's circular station keeping.

"Too far, sir. Past Pluto by half."

"Then we go get them."

"Waste of time, sir. They'll have to try the special drive again. They would be long dead by the time we could get out far enough and then slow for a rendezvous of some sort, even with both vessels moving toward each other."

"It's truly too far?"

"By at least eight billion miles, sir."

"God help them."

"What if we wind up too close to the sun or something?" Fred asked. It was getting a little chilly in the shuttle, the heaters weren't keeping up with the cold. The far away sun was no help.

"We would have to make an immediate transition again, assuming we weren't simply vaporized."

> "Let's get it right the first time, kid." "I am trying, Fred."

As they were talking Fred had been transferring all of the digital images of the world they had visited into the shuttle's computer. Fred wasn't as ignorant of some things as he at times pretended to be. They had both agreed to transmit everything they had recorded before making this next jump. With data compression it would take perhaps another twenty minutes. Jonathan had also dictated some ideas he had for a more accurate way of making transitions. It was all a little bit like a last will and testament for

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the both of them.

Finally there was nothing left to do but pray and flip the switch.

"If this turns out really dry it has been an honor to know you, Fred. Thank you for everything."

"Likewise, kid. Throw the damned switch, my feet are cold!"

Blink

The sun was a lot closer, but not too close.

"Kid, if you say "Oops" one more time I'm gonna knock you up 'side the head!"

"Hand me those binoculars, please." Jonathan pointed to the small compartment next to Fred.

"What do you see?" Fred fumbled quickly to get the powerful binoculars and then handed them to the boy.

"Just a minute."

Jonathan managed an actual smile.

"Well! What?" Fred was about to faint.

"We're going to beat Loophole home, that's the Earth and the moon over there."

"Well hot damn." Fred said quietly.

"So where do we go fishing?" Jonathan asked after a time.

'I know a good spot up in the Delta, outside of Stockton. Big time stripers."

Loophole II

"They made it, sir." Chang's doubts had vanished.

"Where?" Banks asked, not quite shouting.

"They're ten hours out from Earth. Shall we go home now?"

"Yes. Take us home." There were tears in Banks' eyes, he did not attempt hide them. Smart

Mankind would have the stars.

Epilogue

"You got to be patient with the fish! Shit!" Fred could see that the boy would probably never catch more than a sunburn.

> "This is a bit tedious. It's also very hot today." "Then have a beer!"

"Beg pardon?"

"Have a beer, it's about time you had one."

"I tried one at your house, remember?"

"You took a sip. Drink one, maybe you'll grow some hair someplace besides your pointy head!"

Jonathan dutifully did as he was asked. After a short time the fishing trip became less tedious.

Smart

Smart

Smart

Smart