LOCALITY

by Jeremy VanSeader

PART I

1986: Chernobyl, Ukraine

CHAPTER ONE

Exothermics

Aleksander Berezin sat alone on the wooden park bench, green paint already cracked and peeling, awaiting another waste of time with dwindling patience. It wasn't as if he had more pressing matters to attended. No interesting pastime to look forward to, no pleasant distraction to put a smile on his face. Such things were a part of the past, beyond him. He didn't expect to meet those old friends again. No, it was the waiting that annoyed him, it was the talking that would lead to nothing, it was forcing himself to profess concern when none existed.

There was one footpath that wound through a tasteful sprinkling of trees, none of which had started to put out new springtime buds yet. It took almost five minutes to walk across the park, an act that Alek was familiar with. He walked along the park path whenever he needed to escape the inane charade of dealing

with people. Today, he was alone at far side of the park, which suited him just as well.

Alek stood up slowly, jaw set in expectation of the discomfort that comes with moving his left leg. He was well into his fifty-eighth year, a fact given away by the grey fringe in his hair, and had collected his fair share of health problems. The leg was a reminder of a time his car decided to roll over on the highway. It was fine, though. He endured it.

The sun was still a few hours above the horizon, casting long shadows behind him. The ground still had some soggy patches from the recently melted snow. It was late April, and everyone had their hopes up that it was they last they would see of winter. Alek squelched through the muddy grass uncaring, and flipped the collar of his overcoat up against the wind. The park was located on a raised piece of land that overlooked a large lake. It was a man-made lake and had no name, simply The Lake, or officially Coolant Discharge Reservoir 38-2. It was built about seventeen years ago along with the city. Beyond the lake was the thin, muddy ribbon of water that made up Pripyat River, from which the city got its name.

The metal of the railing was cold against Aleksander's hands, helping fight off the exhaustion he was feeling. This week his team had pulled the night shift which he had already completed today. Alek currently held the prestigious rank of Captain Aleksander Berezin of the Soviet Armed Forces, Strategic

Missile Division. He, and his squad of four men, had been posted to Pripyat military base for the last three years, and Alek presumed that he would hold this post until he died - most likely of old age. It was fine.

At the end of his rotation, he had held out some small hope that he could have retired to his bed. Should have done so hours ago. Instead, he had been forced to stay up to come meet with Boris Kovalenko, Plant Director for V.I. Lenin Power Plant. The power plant itself loomed a few minutes walk away to Aleksander's right, its four large reactor stacks standing proud against the clear sky. A steadfast bastion providing proof of the greatness of Soviet ingenuity. Alek sighed inwardly.

Looking over the railing, down at the lake below him, water swirled and churned around a series of three spillway vents, each about a meter across. The lake was not very deep here, and a number of concrete chute blocks jutted out of the frothing stream like giant teeth. He stared at the water for a time, watching the hotter outflow water interact with the cool lake water, creating small whirlpools and long trails of froth. It relaxed him and the playful dance unfolding below helped take his mind off of some unwanted thoughts.

"Go ahead and jump, huh?" a rough voice called from behind him, perhaps hitting a closer to the mark than either man realized.

Aleksander turned, favouring his right leg. So here we go,

he thought. Alek gathered himself and painted a smile on his face. Well, hopefully it will pass for a smile.

Boris Kovalenko stopped walking when he reached the edge of the path, not wanting to trod through the soft muddy grass. He had the last remains of a cigarette in one hand, one of the unfiltered kind that were cheaper to get but tougher on the throat. Seeing that he had Aleksander's attention, Boris tossed the butt on the ground and stepped on it.

"Such a long face, and here at the start of a wonderful spring", he said, gesturing broadly at the barren trees, drab concrete buildings, and empty flowerbeds.

Alek slowly made his way back to the bench and sat down without ceremony. "I have been waiting for you for so long, it tries one's patience," he replied, sterner than he meant to, "Why are we out here anyhow?"

"My office isn't the best place to meet right now," Boris explained as he lowered himself down at the other end of the bench. "We are trying to manage things ourselves, without interferences, you know?" Boris flashed a toothy grin at this last comment.

Alek had a hunch that he knew what the other man was getting at, but wanted to get Boris to state out in the open with no misunderstandings. He decided to get through this as directly as he could.

"Ok, let me begin with the topic I tried to bring up on the

phone earlier," Alek said with a touch of annoyance. This entire meeting should have been a matter of a quick phone call to sort out the civilian shenanigans at the power plant. Instead, Alek had let Boris talk him into coming out to the park after shift rotation. He couldn't get Boris to budge on the matter.

"This is a very busy week for us," Alek began, making sure that Boris understood that 'us' did not include him or his people at the plant, "and any kind of deviations from normal operations during the week is going to only cause problems for everyone. We..."

Boris chuckled amicably and clapped Alek on the shoulder, cutting him off, "Yes, yes, you don't need to be so serious about it. Come on, Captain", Boris said this last word with mock seriousness, "The news of General Maksimov's arrival is all over the city. This is exactly why we need to do these extra tests - to show him. You don't know what this means for us. It's fine, what do you care, huh?" Boris stood up and started arranging his overcoat around him eager to get back. There was an eagerness to get back about the plant director. The man's excitement about something was apparent just under the fake smile he shone at Alek, in the quick way he tried to end the talk.

Alek stayed seated. He could feel himself becoming irritated and tried to stomp it down. Not at the other man's insistence at screwing up the military's plans, but at the jab at his rank. It seems that his past would never leave him alone

and everyone in this damned city would make sure of that.

"Alright, no seriousness, just friends talking right?" Alek tried on a grin. Boris nodded back at him happily but distracted, more intent on locating which pocket currently held his pack of cigarettes. Clearly the other man was already imagining himself back at the plant preparing his tests. "You are right, what do I care? I'm sure that you have involved Bukosky and he has agreed with it. What about Pletrev? What did he say?"

Vladimir Bukosky was the science manager at the plant.

Vladimir was one of the most knowledgeable people there that knew the inner workings of the how the plant operated, back to front. Usually, any change to normal operations at the power plant had to be approved by him to avoid anyone causing an accident. The only person who might know more than Vladimir was Vanko Pletrev, the chief designer. Vanko was kept on at the plant to consult on matters to do with the facility itself, the building and infrastructure that ran the reactions. Alek knew all this, since all military personnel had to have full understanding of the civilian workforce. The opposite was not true. Alek also knew that Boris had not conferred with either man.

Boris quickly sat back down and grabbed Alek's arm hard with a firm grip. "Now you listen, Berezin", Boris hissed, all pretence at camaraderie was gone. "Neither of them know, and do

you know why? They would steal the glory for themselves! They would tell the General that it was their great plan to fix the power grid problems. No! It will be Boris that gets the glory!

"Do you know how many times a solution to this problem has been tried? Three time! Three failures. But this one will not fail. I know it will work this time. I figured it out!"

Alek had expected as much. The power grid problem was a concern, but only a minor one. In the event of the national power grid going down, the reactor's water pump would stop pumping cold water into the reactor. The plant had backup generators that would take up to a minute to restart the main water pump. This would leave a minute where the reaction could get dangerously hot. Overall, it was a rare event, but with the current conflict in Afghanistan and other tensions with the Americans, any attack that might impact the Soviet power grid scared the Generals, and the powers that be wanted every hole plugged.

"We have our own tests to run too," Alek argued, "Tests that actually matter more than you begging for a treat like some mongrel. Now, my team is going to be on station at the time you have scheduled this so called 'maintenance window'. I do not need you putting the power plant through shutdown drills and dicking with turbine outputs all while we are trying to carry out the General's agenda. How do you even plan to carry out your clandestine tests without Bukosky finding out?"

Boris had loosened his grip on Alek's arm and had resumed the search for the cigarette pack. He shook his head at the last question and smiled the way one does when he is about to impart some great wisdom. The man was so capricious, Alek could feel his mood growing darker.

"Why do you think the test is set for after midnight, huh?"
Boris explained with a wink, "We solve our problem, with proof,
and none the wiser until we make the presentation to the
General."

"You will be simulating a grid failure, then?" Alek pressed.

"Yes."

"And during this period of no power, the plant is required to run at low power output, is it not?"

"Well, yes. Until the turbines get the pump up to speed,"
Boris had finally freed his cigarettes from his inside coat
pocket and lit one. The smoke blew towards Alek, making him wish
the man had better taste in tobacco. "But only for a moment. The
new procedure will have almost no down time"

Alek decided to lay all his cards on the table, to make the plant director understand his situation, as much as Boris was allowed to know.

"Listen to me, now," Alek started, "We need the base at full power. If the grid is down, we must rely directly on the plant. If the plant is running at low power, it may cause

problems for us. What if the safeguards activate when the reactors get too hot? You could have done this weeks ago, not now.

"If things go bad for us they will go very bad for you and worse for all the others." Alek turned his gaze toward the city lights where almost 30,000 wives, children, merchants and others not directly working for the base or the plant lived. "Maybe you better eat well tonight, who knows what types of rations will be available next week."

"You really are a grumpy one," Boris said, "Look, nothing will go wrong. Nothing I have planned endangers the reactor cores, it is just the diesel engines. You will still have full use of the reactor output."

"Not if it is in low power mode," Alek countered.

"Only for the briefest of moments. What do you guys do to need so much power?" When no reply seemed forthcoming, Boris clapped Alek on the back, "It will work this time,"

Boris stood up to leave again and turned to point a finger at Aleksander. "It doesn't matter anyhow. If you tell Pletrev or Bukosky, it will still happen. They would run the tests themselves, you know it. This is my chance and it is happening. Why don't you do your job and let me be."

The plant director didn't wait for any reply and strode away back down the path in the direction he had come, the direction of the power plant.

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Aleksander watched Boris Kovalenko head back along the path and disappear into the long shadows of the oak trees lining the edge of the park. He had actually held onto some small hope that he could appeal to Boris somehow, to convince him to stop fiddling with the plant during the General's visit. The experiments with the turbines could be done next week, Alek was sure, the results mailed in to Moscow, however Boris had his eyes firmly on the promise of acclaim and advancement. A placement at the Pripyat facilities didn't hold the highest regard in either military or civilian service. Most people did their time there while keeping an eye out for something better. Alek simply wanted to keep his superiors off his back a little more, which was not very likely given the outcome of their clandestine meeting. It was bad enough that he had had to wait until Boris's own shift ended so they could meet, but the meeting had let Alek verify his suspicions that the plant manager was indeed planning to alter the power plant's operation during his shift.

[Be more descriptive?]

Unknown to the civilian power plant workers and to most of

the population of the city, the military base located at Pripyat housed three long range MIRV-type ballistic missiles, designated 15A18, each carrying multiple 700 kiloton nuclear warheads. It was one of the many defence bases of the Soviet Strategic Rocket Forces secreted throughout the Ukraine, in rural areas, safe from American detection. Many of the city's populace probably suspected the truth, but there was no official acknowledgement publicly. The power plant was seen as a perfect cover for the radiation signature of the missile silos, so once the base was ready, the reactor was built around it and then the city to house the workers and their families. Alek and his team were one of the many silo technical teams that manned one of the three control rooms in shifts.

Boris's plans meant that there was a real possibility of a power failure in the missile silos during the military demonstrations that were planned for the week. As well, civilian plant personnel would be active in parts of the plant that joined with the underground base, possibly getting in the way as they were apt to do. It was a complication that should have been entirely avoidable, but the presence of the general being in the city had the unforeseen effect of rallying the power plant staff to showing off their solution for the power grid problem. Such good Soviets.

Alek stood and took in another view of the lake before turning to leave. The far side of the lake was already starting

to darken. Beyond the river, past the east bank, the country side stretched to the horizon showing off vast forested regions and empty grasslands. There were no other signs of civilization to be seen beyond the city limits. Any roads that might exist was too small and well hidden to be visible from here.

Behind him, west of the park, was the city proper. It wasn't a large city by any standards, but it was big enough to have its own hospital and shopping malls, a movie theatre and graduate school. The small commercial and civic regions were surrounded by modern three- and five-story residences, including several buildings reserved for married couples. The streets were largely broad avenues, free from the close quarters of other soviet cities. They were quite well lit and tree lined that getting about the city on foot was rather pleasant.

His left leg wasn't complaining as much as he knew it could, which was a blessing. He walked along the footpath away from the power plant, the base, and the coming problems. The park was starting to fill up with couples, lost in each other's company, going for lake side strolls. A boy about six years old came bursting from between two trees followed closely by a white and brown sheep dog. He laughed and threw a ball he was carrying for the dog. The boy's father brought up the rear of the group, nodding at Alek as he followed after his two small charges. It was high time to leave before the sight of so many happy faces started to turn his mood ugly.

The park adjoined onto Builders Avenue, which Alek turned onto and headed towards the residential complex that housed his apartment. The route would take him in the direction of the city centre where a stage and fencing were being hastily constructed in front of city hall, in preparation of the General's visit. The sidewalks were beginning to fill up and Alek forced a few early evening revellers to step out of his way as he refused to move aside for them.

The neighbourhoods he was walking through was quickly changing from parks and broad avenues to low rise buildings and store fronts packed shoulder to shoulder along the streets. He approached an elementary school on his right consisting of a squat two story concrete structure next to a small paved playground with a chain link fence around it. Alek had forgotten that the school was on this route home and would have liked to have taken another way.

Several dozen school children, from all grades apparently, were out in the playground arranging themselves in orderly lines. A few taller figures standing apart from the kids were busy waving their arms at the children. The teachers, no doubt, putting the students through their paces, practicing some sort of presentation that they would perform for the arriving dignitaries. The happy din of carefree young children reached his ears as he grew closer. It was a sound he was not completely adverse to, and despite his desire to get home, he found himself

stopping to watch the proceedings.

The students were still wearing their smart looking dark blue uniforms, white dress shirts and red ties for the boys, knee length dresses for the girls. It was almost the same exact uniform his little Sasha wore to school when he was little. Alek could easily imagine his son being one of the proud children going through their steps that would be so important tomorrow during the presentations. He scanned the faces of some of the smaller boys, looking to see if any bore even a passing resemblance to Sasha. None did, but it didn't stop Alek from thinking about his son even more.

Sasha used to be the first one to wake up in the family sized apartment they were assigned to. He would awake full of happy exuberance, bounding into the bed he shared with Sonja, eager to see his parents each morning and start breakfast. Alek could still feel the little hand curling around his index finger as Sasha tried to lead him to see a spider he found, or to play a game that he invented. Could still remember the way Sasha laughed as he ignored his father's calls and ran ahead of Alek on their walks to school each morning. Alek would good-naturedly jog along behind, letting his son win every time.

Of course the apartment was long gone now, reassigned to a family that needed it more. Those times he fondly remembered of the three of them enjoying each day as it came were also long gone. Sasha was gone. That was before the drinking started.

Alek tried to banish these dusty thoughts but they were determined to stick around. He forced himself to look away and keep walking, head down to examine the cracks in the sidewalk as he passed over them. It was no good to dwell on things that he couldn't change anymore. It was best to leave such happy thoughts to a time when happiness bloomed and didn't wither and die, the way it had afterwards.

It wasn't far to the apartment now, just three more blocks to get past and he could get some rest. Alek didn't make it that far though. Between him and his bed stood the Builder's Beerhouse. The tavern occupied the bottom floor of a three story building and had a sign hanging out front over the sidewalk showing a hammer and a beer. Alek was still lost in thought when his feet turned him in towards the tavern entrance and he pushed open the heavy wooden door. He had had a lot of practise with this door over the last few months.

Inside the Builder's, the air smelled of beer, sweat and maybe a hint of someone's lunch that had come back up. The lights were dim but Alek could still make out some of the regulars at their usual spots. There was the old guy that mumbled all night seated at the end of the bar. The three husky men, probably construction workers, aptly enough, that liked the table back in the corner were there. Alek didn't know any of their names, he couldn't care less, and none of them paid him any attention when he took a stool along the bar, away from the

old man.

Tonight, there was also a man standing by himself in the shadows near the door, holding an untouched pint glass in his hand. A couple kids from the professional school where at a table along the wall, near shelf with the radio, hollering and laughing about some triviality. And oddest of all, a woman also stood at the bar accepting a glass from the barkeeper. She appeared to be alone and sipped her drink quietly while looking over some papers. The radio was pumping out some upbeat song that Alek didn't recognize. Disco music was the new fad among the kids this year.

Alek caught the barkeeper's eye and waved him over. The barkeeper was a middle-aged balding man who didn't mind having a drink himself, from the size of his gut. Alek waved the man to come in closer and leaned forward, something the barkeeper's protruding waistline prevented him from imitating.

"I need something today, Yuri," Alek said, "What have you got?"

Yuri placed his hands facing up on the top of the bar. "Hey, I have nothing today, maybe tomorrow, you know?" he replied apologetically.

"Don't give me that," Alek said, "Just give me anything, whatever you got, I don't care."

"I'm out, my friend," Yuri straightened up and absently picked up a nearby cloth, "Times are tough, harder to get things

lately. How about beer today? Vodka?"

Alek sighed, "No, I just...," he started, seemed to change his mind, then said "No."

The barkeeper shrugged and went to busy himself wiping out a glass left on the bar.

Alek looked around annoyed at Yuri, and then felt annoyed at himself. What was he doing here? The best thing would be to just go home to bed and get what sleep he could. Still he stayed in the bar. He could feel the familiar craving nagging at him and wouldn't let him be until it was sated.

His gaze fell across the figure standing in the shadows by the door. Alek could feel their eyes meet and looked away.

Something about the man bothered him but he couldn't place the feeling yet. On the radio, some song by Kino started playing causing the grad students to begin singing and banging the table.

"Aleksander Berezin," the woman at the bar beside Alek said, "Is that you? Are you still smoking that awful hashish?"

Alek stared at the woman in surprise. This was someone that knew him, and his habits, but who could be here at the ass end of worthless postings? She turned to look at him and right away he knew.

"Miri, what are you doing here?" he said.

Miri turned back to her drink. God, she was still gorgeous. Her round face still had a youthful glow about it, and her deep

set eyes hadn't lost their power to draw men in to their sultry gaze. She had her brown hair long, reaching just passed her shoulders, and appeared to been as thin and lithe as ever.

"Are you following me?" Alek asked.

She laughed with honest surprise. "Follow you, Alek," Miri replied, "No," She paused and looked at him, seemed to consider what to say. "I got a job here. Secretary at the power plant.

Meeting you here is just a happy coincidence,"

"Thought maybe Sonja sent you," Alek said quietly.

"No, she didn't," Miri said. She turned herself fully on the bar stool to sit facing him. Alek was bothered to see a look of pity in her eyes. No, maybe he was only seeing things. "She is done with you, Alek. After everything? No,"

Alek stared at down at his hands on top of the bar's dark surface, unsure how to proceed. He no longer wore the silver wedding ring that once lived on his left hand ring finger, but it had left an impression on his skin that remained. He hated for Miri to see him here like this, hated the way so many memories of his wife swam to the surface when he saw her. Did she still talk to Sonja? Letters perhaps? Did they still get together on birthdays, maybe? They had been friends longer than he knew Sonja. He cleared his throat and prepared to ask the questions that he would hate himself for later.

Miri took in a breath and exhaled loudly before preempting him, her tone suddenly adversarial. "Why are you still smoking

hashish? Did you learn nothing from the car accident? What would Sonja think? It was nearly the death of you both, and can still be the death of you," The last word was said with emphasis.

"I live with that crash every day, Miri," Alek said, hand unconsciously moving to massage his left knee. "Things are... hard for me,"

Alek hadn't meant to talk so openly to Miri, but something about seeing an old friend of his wife's, someone who knew them from Before, had made him want to rekindle the last spark of a connection to Sonja, however fleeting.

Miri laughed at him. "Hard for you?" she asked incredulously. "Do you know what Sonja had to endure since walking out of your home that night? What kind of life she can make now? But you don't care, its all about Alek still. Maybe I should tell you she has to sell herself for money. Would you care?

"She can't even get a proper divorce and start a new life it is too expensive. I don't know how she can endure it. First
Sasha's death, then you and your drugs, trying to kill her,"

"I didn't... " Alek tried to protest feebly.

"She is better without you there to ruin everything, not that there was anything left to ruin. You were horrible for her, Alek. Horrible"

Miri stood up and placed down some money on the bar, underneath the glass.

"I never wanted to see you again. Neither does she." Miri made this final pronouncement and walked towards the front door of the tavern. Alek didn't watch her leave. Screw her. Why did she have to be here now, of all places. He didn't need this, the constant reminder of things he worked to forget. In her reaction to him, he saw himself as clear as if she had held up a mirror, and he didn't like it. He tried his best just to get through each worthless day and onto the next. And now she was here to taunt him. Bitch.

"Yuri! Vodka," Alek called to the barkeeper who had disappeared somewhere in the back.

The sound of metal scraping on wood immediately to his right brought Alek out of his dark downward spiral. His head snapped around to see who it was now that had come to bother him. His face had become quite stern, lips compressed in bottled anger as his thoughts started to feedback on themselves. It was the stranger from the door who sat on the barstool looking relaxed and at ease. The man wore a dark blue woollen overcoat, common among the people of Pripyat, but when Alek caught a glimpse of his pants, the fabric seemed to be something finer than wool. Could it be silk? Alek couldn't be sure, how could he be? The stranger placed his still full glass on the bar with a thump, exposing his left wrist from the confines of the coat sleeve. Alek was given a brief glimpse of a large silver wristwatch, bigger than any watch he had seen before with a

peculiar face. It seemed to glow softly in the dim light of the bar, but his view of it was too fleeting to be sure.

The man had short sandy hair over a square face that sported a short pointed nose. Dark glasses prevented Alek from seeing his eyes, maybe that was what threw him off before.

Nevertheless, Alek could feel those eyes skewering him from behind the tinted circular lenses. The man's gaze was intense and strong.

"Forget her, mine friend," the stranger said with oddly accented speech, "I could hear it all, ya? Fuck ze bitch," The man's comments echoed Alek's own thoughts. Alek didn't acknowledge him.

Yuri had finally reappeared from the back of the bar and had a bottle of vodka and an empty glass pinched between two fingers. It was some of the crap Hrenovuha stuff, Alek saw, but it would do. The barkeeper started to pour into the glass, but Alek took the whole bottle from his hand. Before Yuri could get out of reach, the stranger grabbed chubby man's wrist, eliciting a questioning glance from the barkeeper. The stranger said nothing but nodded towards the left side of the bar behind Yuri, and released his wrist. Yuri frowned at this silent directive but complied anyways, stepping backwards to fetch a small wooden box from under the bar.

"Mine friend, I think I have somezing better for you den zat," the man said softly. Spinning the box around so that the

hinge was on the far side, the man opened the lid. Inside lay six rolled cigarettes, no doubt the hashish that Yuri claimed to not have. "My own supply, better zan what this buffoon serves, ya? He holds it for me." The man again seemed to know what Alek was thinking.

Alek continued to ignore the stranger, pouring himself a drink from the vodka bottle. The small wooden box and its contents drew his gaze though. The odd man sitting beside him smiled and nudged the box closer.

"Indulge me, then" the man said, taking one of the cigarettes for himself and materializing a lighter with a flourish. He lit the end and left it dangling at the edge of his lip while holding out one for Alek. Alek took the man up on his offer. What the hell, his initial need that drove him in here hadn't diminished any with running into Miri. If anything it had grown.

"What happened to your son? I can see za damage it has caused. Your pain tried to hide behind uncaring, but it is still there, ya?" the man went on, not leaving Alek alone. Perhaps he thought he was entitled to some level of discourse in exchange for the hash. Alek took a drag on the cigarette, letting the smoke linger inside before releasing it.

"I too had a son once. Mine boy was eight years old, so happy, so carefree. We loved him," the strange said, refusing to give up on Alek. "He was hit by a train while walking home from

school. My wife saw it. She was heading out to meet him halfway so zey could walk home togezer. She was never za same. None of us were."

The stranger took off his glasses and folded them carefully into his coat pocket. He had greying blue eyes that had some urgency about them. "I see myself in you. I see your anguish and recognize it for mine own."

"My son was twenty," Alek said after a pause. "We don't know what happened. He was away at the time." Alek looked up at the man before continuing, "Afghanistan."

The stranger sighed, "Ah... dat is ugly business, za war."

He took a thoughtful pull on his cigarette, "You shouldn't blame yourself, zou, you couldn't be zere. It happened, yes. A tragedy happened and you are stuck now, feeling sorry for yourself, ya?"

The man shook his head slightly.

Alek didn't know what the man's deal was or why he felt the need to be so talkative. This odd man with a funny accent thought he knew Alek, thought he understood what Alek had gone through, clearly, by some shared experience. Alek felt the need to show that he was not so easily read.

"I do not spend my time feeling sorry for myself. Maybe you did, I feel nothing anymore," Alek said. He put the man's cigarette down on the edge of the bar favouring the vodka to the hashish. He drank what was in his glass and refilled it.

"But you did feel something, when it happened?"

"Yes"

"Self pity? Sorrow? Did you need a shoulder to weep on?

Someone to wipe your cheeks?" the man queried, steeling an

unseen glance at Alek as if to see what effect his words were
having.

"I was angry, ok? Of course I was angry," Alek spat out,
"Fucking Afganistan. Fucking war. Fucking Americans."

The stranger smiled this outburst but again Alek missed seeing this reaction, he was focusing his gaze on the bottle.

"Anger, yes," the man said approvingly, "You raged at za machine dat ate your son. At za ones dat took him from you,"

"It was so pointless," Alek went on, "and for what?

Nothing. American influence spreads everywhere, it is their nature to fight and destroy. The Soviet republic can not stand up to them. Sasha died standing up to them, we were told everyone must help to stop them. But they lied, we can't stand up to them. I hate them."

This last simple statement brought a sparkle to the strangers eyes. He poured Alek more alcohol which was accepted and downed readily.

"The Americans deserve your hate. Zey are a scourge certainly, zey can not stand to see the Soviet empire prosper and gladly kill its sons to prevent it. But what of our own leaders, surely zey are not blameless?"

"No one likes this war," Alek agreed, "There is no reason

for it. Still we are told to send our sons out to die. They lie, they never stop lying". Alek's hash had kept burning during the discussion and was mostly turned into a long ashen snake. Alek didn't mind, tonight seemed to call for vodka after all. He took another drink straight from the bottle.

"We can't do anything, better to give up. Everything is pointless. We are nothing, cogs in a machine that doesn't care that the gears are stripping"

"You are wrong, mine friend," the stranger said, leaning in closer, "Zere is always something we can do. One man can have power. One man in the right place can make a decision that could set everything straight. Punish ze Americans, send a message of displeasure to our leaders. One man. Listen..."

[Add more]

[Add kids in bar being boisterous, they are soldiers, loud and visibly angry at the govt also.]

[Kids provide hints at the prank coming next]

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It was getting close to midnight when Alek finally exited the Builder's Beerhouse and started making his way home. He felt very lightheaded from the vodka, and took a few cautious steps in the direction of his apartment complex. It was a good thing he had the next shift off, otherwise he would almost be time to start heading in to the base, and he was in no condition for

that. Alek stopped and peered down the street, blinking a couple times in an attempt to clear his head for a moment. Alek reconsidered his direction, turned around and started off again in the opposite direction. He hoped it was the right way. The alcohol seemed to have numbed his aching knee into an uneasy truce.

Alek continued a slow steady pace along the sidewalk.

Ahead of him, the store fronts and three story apartments

started to give way to tree lines strips of grass as the street

expanded into an avenue. There was no one else to be seen in

this part of the city, but the sound of distant traffic

remained. Alek walked blindly, step after step, babying his bad

leg and looking forward to getting home to his bed. It wasn't

until he got to the city centre again with its partially built

stage and scaffolding that he looked around and realized he had

gone the wrong way after all.

The hour was much too late for workers to still be constructing the stage but Alek saw movement there, nonetheless. A figure dressed in black was placing a ladder against the left side of the scaffolding. It wasn't long enough to suit his needs, apparently, because the figure began efforts extend the ladder with much shaking and loud rattling.

"Hurry up, man," a nervous voice called from the side of the half built stage. Alek looked closer in the shadows there and saw two other black clad figures, one straddling a large bag of some sort. The man wrestling with the ladder ended the struggle with rattle from the ladder and finally seemed happy with its placement. Alek soon realized that the ladder wasn't the only source of the loud noises.

Turning around, slowly so as not to upset his spinning head, Alek saw a convoy of five or six military trucks making their way down the avenue towards the base. They were all the same model of truck, having cargo areas covered in canvas held up by a series of iron bars, like automotive rib cages. As they grew closer, it was clearer that the convoy was five trucks long. The second and fifth trucks had a pair of soldiers hanging off the backs, standing on the rear bumper.

The loud engine noises did Alek's head no favours as the convey approached the city square. The sidewalk Alek as on ran along one side of the public space that housed the stage. It was prudently lined with short bushes and a park bench, which he shuffled over to in order to take a moments rest. Once seated, he bent over and placed his head between his hands. It helped a little.

"It's upside down, idiot!" the same nervous voice called out. Alek lifted his head enough to watch whatever activity was happening at the stage. The dark figure with the ladder had climbed it to the top of the left scaffolding and was attaching a banner to it. The banner had been rolled lengthwise, but had become partially unfurled when the person had taken the one

corner up the ladder. At the instruction of his accomplice, the figure flipped the banner over, further unrolling it. By the light of the street lamps, Alek could read "Eat shit and die, General Maksimov!". [Zhri govno I zdohni] He laughed in spite of himself. Some junior ranked soldiers were clearly not a fan of the General or his policies and were making their voice known though a classic schoolboy's prank.

The person on the ladder climbed down, jumping off of the last few rungs in haste. For a moment, he was bathed in lamp light and Alek recognized the loud mouthed boys that were in the bar earlier. While the ladder-man, as Alek thought of him, sprinted over to the other side of the stage to prepare to string up the rest of the banner, another prankster emerged and started up the ladder with a bag in tow.

On the street, the first of the green convoy trucks had passed by Alek and was along side the stage. The two youths were committed to their prank now and didn't seem to take any precautions against the convoy soldiers seeing them, other than keeping their dark hoods drawn. The figure with the bag was pulling something out of his bag and attaching it to the rigging where the banner was hung. Alek could hear the familiar sound of duct tape being employed but couldn't see well enough to tell was the object being attached was.

An annoyed voice suddenly spoke up behind Alek, "Damn it, gramps, move it. What the hell," It was a third prankster

crouched in the bushes at the side of the bench. The annoyed kid behind him gave a Alek a shove, knocking him off the bench and onto his hands and knees. It took a moment for the world to stop swaying side to side, and for Alek to regain his senses. From his new vantage point down on the ground, a length of wire was clearly visible trailing away through the grass towards the stage and the second prankster taping up the small objects. Looking back at his shover, Alek saw the wire was attached to a small control box that the kid was trying to hide in the long grass underneath the bench. The control box was one Alek had seen many times before during his service. It was a small detonator box used to set off explosives, or in this case, Alek was sure, fireworks. Where did these three manager to steal fireworks from? There shouldn't even have been any on the base. Perhaps is was simply blasting caps they were rigging, a loud bang to coincide with the unfurling of their protest banner.

The kid had come around the side of the bench to kneel down and peer at his handiwork. He was clearly unsatisfied with it and pulled the box out from its hiding spot in the grass and placed it directly under the bench where the lights didn't reach. More pleased this latest hiding spot, the boy then pulled out the box again and flipped a switch on it, causing a red light to illuminate. The kid nodded to himself this.

Alek watched this all take place over the span of a couple seconds. Placing one hand on his good knee, Alek slowly began to

prop himself up. It was time enough to head home. The short break hadn't really helped as much as Alek had hoped. On the street, the third convoy truck was thundering past the square.

Alek had almost regained his footing when his bad knee gave out on him. He fell over with a cry and landed on top of the prankster holding the control box.

"Oh shit, gramps." The kid whispered urgently, "oh shit, what did you do?" The kid jumped to his feet looking back at the stage franticly. He glanced at the passing convoy, seemed to reach a decision and sprinted away from the stage and his partners in pranking.

Alek again tried to regain his feet, and succeeded this time. From the direction of the stage, a loud whooshing noise started up followed by an ear splitting whistling sound and a cry of pain. The prankster with the bag had jumped down to the ground cradling his left hand with his right. Behind him, a bright blue flower burst was exploding against one of the store front windows with a concussive blast that shattered the glass. The blue flash lit up the prankster's panicked face.

The small object, which had revealed itself now to be fireworks, had worked one end of the tape loose and swung in a shallow arc below the scaffolding. Alek watched, unable to look away, as another bright flash emerged from the end of the firework and shot a charge towards the fourth passing convoy truck. The charge punched through the canvas canopy of the truck

with ease. A brilliant blue flash lit up the canvas covering. A few stray sections of the flower burst erupted from the open back of the truck as small blue fireballs. The canvas covering quickly caught fire and began to billow black smoke. The acrid smell of burning wood and cloth filled the air.

The two soldiers on the back of the last truck jumped down and ran as fast as they could to take cover away from the open expanses of the city centre square. The drivers of the fourth and fifth trucks took a bit longer but they quickly stopped their vehicles and also emerged from the cabs, immediately sprinting after their fellows. Shouts and confused demands to know what happened reached Alek from the far side of the square.

The first three trucks in the convoy didn't stick around to see what had happened, or perhaps they were not even aware.

The two remaining pranksters were no where to be seen.

The sight of the fleeing soldiers and smell of smoke snapped Alek back to full attention. He spun around and began running, alternating between steps and hops, back the way he had come along the side walk. His left knee was fully awake now and screaming in protest. Alek propped himself up against the store front windows as he ran, trying not to fall over.

He had made it down one block when the explosion happened. The sound of it was so loud and startling that Alek lost his grip on the wall he was pushing against as he ran, and fell to his hands and knees once again. The sound of tinkling glass

followed, signifying more store front windows that had fallen victim to the prank. Alek felt the heat from the explosion on his neck, his shadow cast by the raging fire danced crazily in front of him.

Up and down the street, lights were coming on and people pulled back curtains to see what calamitous event had woken them up. In the distance the wail of the fire trucks could be heard.

Alek kept moving, not stopping until he was back in his bed.

[This prank is critical for the finale, creating a disturbance and providing cover for people to masquerade as cleanup workers as cleanup is going on]

#

The following day, Alek awoke with a slight headache, the lingering effects of the previous night still refusing to go away. His alarm was set to wake him for the start of his duty shift, which began at midnight, but today he had woken himself up before the alarm rang. The first thing he had to do when he reported in, was to meet with Major Sergei Volkov, the base's commanding officer, to discuss how his meeting with power plant manager went. If there was any conceivable way to avoid talking with the Major after Alek had completely failed to convince Boris of delaying or cancelling the tests at the plant, he would have taken it. Most people tended to walk softly around Major

Volkov on a good day. When the Major became upset about something, his displeasure tended to explode unexpectedly on anyone nearby. The trick was to avoid the shrapnel.

The route to the base from Alek's apartment block took him down the same main avenue from the previous night, past the stage at the city centre. Today, all roads leading to the centre square were blocked off by military barricades a radius of one block from the damaged stage and stores. Alek could see one guard manning the barrier ahead of him. A hastily erected tripod with a floodlight mounted on top shone a soft yellow glow across the street and around the guard station. The guard leaned on the end of the wooden sawhorse that was set up to block traffic and pedestrians alike. He was currently engaged in chatting up a couple women that were walking quickly past. At this late hour, there were no cars to draw the guard's attention. The women were probably the only other people he had seen in a while.

Alek turned right planning to take an adjoining street in order to take an alternate route around the damaged area. He had no desire to pass fake pleasantries with the guard. He would need all of his energy to get through this next shift. It was bound to try his patience to the limit, with the military brass looking over his shoulder and judging every move his team makes. He would have to be sure to keep up the dutiful Soviet act as best he could for the next twelve hours. It would be draining.

The city square to Alek's left was lit up by six of seven

additional flood lights similar to the ones positioned at each barrier. The two trucks that got caught up in the fire had been removed sometime in the day, but a large black scorch mark still existed burned into the pavement in front of the stage, which had emerged relatively unscathed. The air still held a lingering odour of smoke. A few of the damaged store fronts had put up some plywood where glass windows once existed but most window frames were still empty, staring out at the street like empty eye sockets. The store owners probably spent most of the past day moving whatever stock they had into a back storage room.

A lot of the evening spent at the Builder's Beerhouse were fuzzy to Alek but they events that unfolded here at the square were burned into his memory clearly. He remembered falling onto the youngster near the bench, triggering the misfire of the fireworks. One man had definitely made a difference that night, just like the stranger had said. Oh yes, he also remembered meeting the stranger at the bar. Well, it wasn't a meeting so much as the stranger had forced himself into Alek's company. They had ended up talking most of the evening, as long as the stranger had a supply of hash and was paying for the vodka. Alek hadn't gotten the man's name. Hadn't even asked anything about the man himself, most of the conversation was about Alek. The man had done his best to pull him out of the inward spiral he had been in ever since that one year when everything ended. The year Sasha was taken from them, killed. By the Americans,

probably. By the Soviet government, certainly. The year Sonja left him and he found himself alone with no one to help him except the drugs and the alcohol.

As Alek drew closer to the main entrance gate of the military base, the amount of people on the streets increased. A lot of the shifts changed at midnight. Many of the personnel coming from the base were smiling or laughing at some shared joke. Groups of relieved soldiers headed towards to bars to celebrate the end of another duty cycle. Other base staff could be seen headed home towards the residential quarters or headed to a restaurant that held late hours. Their faces markedly different from those that were headed towards to base, just about to begin another eight or twelve hour shift doing the important work of protecting the Soviet republic from the threat of the United States.

Alek walked with a determined pace towards the high command building, avoiding all eye contact with his fellow servicemen and women. Normally, high command was unoccupied for the midnight shifts, but since the General's arrival and late scheduling of the tests, all the brass were present. In the parking lot adjacent to the building, Alek spied a shiny GAZ M1 parked in a VIP spot, no doubt the General's. Its black finish and sleek look made it look majestic in the shadows in the parking lot. The thing had to be an antique. That the General was able to keep such a machine at top condition said a lot for

his status.

Alek climbed the few steps that lead to thick wooden doors at the building's entrance and went inside. The light were all on in the building, illuminating the white tiled hallway Alek found himself now in. On each side of the hall were three doors with inset windows that opened into offices for various officials at the base. The floor and windows were all spotless, tirelessly cleaned for the General's visit by some unlucky privates.

The last door on the right belonged to Major Volkov. Alek approached the door and opened it, stepping inside.

Major Volkov's office, like all the others, consisted of a small reception area and another inner office. The reception area of this particular office contained a desk at which the Major's secretary sat, and two hard backed steel chairs. The walls were adorned with the required photos of the president Gorbachev, Vladimir Lenin and some other figures that Alek didn't immediately recognize.

From behind the door leading to Volkov's inner chamber came the muffled sound of people talking.

"You have to wait," the secretary said to Alek. She was new and Alek didn't recognize her. She stifled a yawn with the back of one hand. The midnight shift was still unfamiliar territory for her, Alek figured.

"Fine," Alek said and closed the door behind him. He sat on

one of the utilitarian chairs provided and waited.

"Idiots!" the Major's bellow easily penetrated the plaster walls and filled the waiting room. "It took all day to find one man with a burned hand who checked in to medical?! That should take two minutes!"

Alek could make out no reply from whoever was reporting to the Major, who continued his beratement.

"The investigation should have started much sooner. The cleanup still has to be arranged. A replacement convoy to be rescheduled. Why do I have to tell you these things? Where did the explosives come from?"

A low voiced reply answered this last question. Alek couldn't make it out but it wasn't to the Major's liking.

"Find out!" he ordered. "Check the ammo supplies, check if it was home made, you morons." Given the fantastic blue flower burst Alek saw, he was pretty sure it wasn't homemade, or something found on the base. Apparently they had no one that had witnessed the explosion so they thought it was a more crude bomb. Alek had no intention of speak up about it.

"Forget it!" the Major went on, "I will get someone else to find out. I want you two dogs to personally report to the supply dump and start providing additional security details. Well, go!"

The door opened rapidly and two soldiers hastily exited the room. They looked in their mid twenties and one wore the emblem of a lieutentant. They glanced quickly at Alek, expressionless,

and fled the office. Major Volkov stood in the doorway leading to his inner office, staring at the retreating backs of his subordinates, the very embodiment of displeasure. After a few moments, Volkov looked around the waiting room, taking in the unwilling audience that it held, and focused on Alek.

"Ugh, Berezin," Major Volkov said with distaste, "Fine, alright come on." He turned and strode back into his chamber without waiting for a response from Alek, who had no choice but to follow him into the room.

The room itself was smaller than the reception area and contained a sturdy wooden desk and chair. There were no other chairs to be found in the room. The Major didn't like to coddle his men, it seemed. The walls were covered in wood panelling which added some small measure of comfort to the room. Some tall floor lamps were located in the corners of the room casting a warm light over everything. During the day, the room would be lit through a large pane glass window located behind the desk. Tonight, Alek could only see his reflection in the window and wondered why the Major didn't get some curtains to block out curious onlookers.

"So you met with that paper pusher, Boris," the Major had a way of making questions sound like a statement of fact, "And I trust everything is sorted out now. The complications are taken care of?"

Alek knew what the Major's game was and was already weary

of it. "Unfortunately not, sir. They still plan to carry out an experimental test involving the turbines, using them to provide power for the pumps until the diesel engines can take over the load. This will require a simulated power grid failure in order to fully carry out the tests. They are quite insistent, sir. They plan to present the findings to the General before he departs the base at the end of the week. He is expected to commend them all for solving the power problem that has gone for so long with no solution.

"Plant Manager Kovalenko has stated that were he to postpone the tests, the science manager or other would take up the challenge and do them anyhow. The prospect of impressing the General is too much for them to ignore."

Throughout Alek's delivery, the Major's face grew more and more displeased. When the report was finished, he stood up, exploding out of his chair and slammed his hands down on the desk with a bang. The chair scraped back and would have fallen over of it didn't hit the window sill behind the desk.

"Saints in heaven, can no one on this base do their job properly?!" he demanded, "Is it too much to ask that you men display some small degree of competence?" The Major straightened and righted his chair. He turned and appeared to be contemplating his reflection in the window as he continued, "The General doesn't care in the least about power plant efficiencies. He is here for one thing - to get this shithole of

a base operational and to get the hell out of here. He is not interested in any trivialities from the civilian sector. Hell, the power plant is nothing but a smoke screen anyhow. Who cares how it performs. Now we will have the possibility of overheating if those idiots mess it up. Pointless. Stupid!"

The Major turned around walked to the front of the desk, forcing Alek to take a few steps back. Alek attempted to evade the man's gaze but failed.

"Truly, I am not surprised that you could not talk any sense into those idiots." The Major said, "I am disappointed, but not surprised. I thought you might welcome such a task. It is a chance for you to do something useful, maybe turn things around for yourself, yes? But what can I expect from one such as you."

Major Volkov leaned forward and poked one meaty finger into Alek's chest, warming up to his subject.

"You have no ambition, no fire." He said, continuing to berate Alek, "Why are you even here still? What do you care about?"

The Major's face took on a look of expectancy, his eye's invited Alek to challenge him, to offer some type him of defence for himself. Alek had played this cat and mouse game so many times before, he knew there was no winning move with people like the Major. It was best to weather the storm and retreat once the man had gotten his fill of insulting.

When no answer seemed forthcoming, the Major pressed on, "I read your file when you were sent here to burden us with your presence. Your CO said that you shut down after your kid died, couldn't take it." The Major peered into Alek's eyes, hunting for a reaction. "He disciplined you repeatedly for drunkenness, dereliction of duty. Finally, when you crashed a vehicle, destroyed military property, he had enough. You don't care do you? You almost killed your wife in the crash, the file says, but you don't care, not a bit. Not even when they demoted you."

The Major again invited Alek to offer some retort but none came. He turned his back on Alek and went back to take his chair. "You are a worthless soldier, Berezin. Sent to a worthless posting so you could sit around being worthless. I wish I could get rid of you, but since I can't I am getting myself out of here. Once this base is functional and the General is pleased, he will leave, and I with him. I don't like unambitious layabouts, Berezin."

Major Volkov seemed to run out of steam and Alek began to take his leave in order to report to his station, but the Major had more items on his agenda.

[From here on we change to more of an outline style instead of prose. Change to prose later]

Alek attempts to take the words and leave. Boss wants to go

on to the tests. Alek is pissed too, he knows all this but has to listen to the boss talk about it again. Boss says, 'you know this leaves the base potentially underpowered and the plant itself vulnerable to an overload.' Tells Alek to watch the power levels, cant do anything about overheating. Tells Alek that the tests will start at lam when most of the city wont notice the activity. The General is already here doing some rounds. He tells Alek to not fuck it up and goes over the list of tests. If all goes well, boss hopes to get out of the shit detail and on to a real posting since the base will be fully ready without needing oversight.

Alek asks about the warhead installation. Boss gets super mad suddenly. Installation needs to be cancelled since the warheads were damaged in the prank. The boss has a mini rant about the idiocy and how the cleanup for radiation materials will take a couple days. The centre is closed to civilians and all festivities are cancelled. Nothing else can go wrong.

Alek leaves to head for his posting. He is momentarily upset about the boss chewing him out over his past but then he doesn't care. Sasha is still dead weather he cares of not. It was leaders like this boss that send kids to die, ambitious men only caring for better perks and postings killing the republic's sons. He wishes that Sasha could be avenged, or at least make people understand the loss. Grows more mad at the soviet government and then gets mad at Americans for instigating

everything. War never ends, we attack them, they attack us, pointless. It is always tit for tat and in the end nothing changes just death.

Then he remembers that isn't true, couldn't one man change things? Isn't that the message from the stranger? If only he could be that man.

#

[From here on we change to more of an outline style instead of prose. Change to prose later]

Give a description of the base overall. Describe the silos and how the systems work. Describe missiles and payload and how they are not funny stocked. Go on to describe control room:

launch systems, targeting, radar panels etc. There is a man at each console - three men. Alek is the supervisor and only he had launch authority.

They are planning to test the silo operation, missile loading, unloading and firing tests. The firing test involved clamping the missiles and them firing the engines to test the thrust. Reaction time and target entry will be checked also. The General and his staff are not in the control room, to crowded. They are in a viewing gallery looking onto the silo.

Alek arrives at the control room still depressed with a

headache. The men in the room are excited to actually be pressing buttons and seeing stuff work. It is their first time. Some of them are talking about the pranks and the rumours about what they heard. Alek tells them to shut up and watch what they are doing. He advises them about the power plant situation. They have a silo power readout to monitor. The power is not at full output but its good. The power plant test must be under way.

While waiting, he thinks back about his need for more drugs and if he could find that stranger again. Maybe he will try to find him tonight. Looks forward to more conversation about changing the world. Call comes in to start the tests. They load missiles into silo and open the doors.

Describe the test being carried out. Alek watches the power Alek watches the missile moving and thinks about its potential. He thinks about all the American missiles in similar places like this pointed at him and the USSR. More thoughts on futility and death.

The next call comes in to test targeting speed. The men excitedly chatter about what target to set. They defer to Alek and ask if it is part of the test. Alek doesn't care. One man suggests New York. Alek scrambles the targeting computer to prepare for the test. Wonders if his son was ever like these men, excited, ready to fight. Remembers that Sasha is dead. Thinks of how govt is not blameless.

The test start alarm comes in. A clock starts simulating

time until an incoming missile. They have to launch as fast as possible. Power plant levels seem to be at lowest level. Alek expects that they are cutting over soon. The target man scrambles to enter the New York coordinates and lock the missiles in for launch.

Alek double checks the firing system while this is going on. The firing man is watching the targetter and not his systems. Alek yells at him to make sure the clamps are engaged. They are not. Firing man explains that they like to slip and turn off.

When they are about to stage a firing, the control room power cuts out and starts up again right away but it is enough to screw up some systems. The target man quickly verifies the target is still ok, the firing man is more panicked about failing the test. Everything still seems ok.

The man hits the launch button at the same time that Alek makes a decision. He turns off the clamps.

Outside the missiles fire up and lift out of the silo. In the observation room, the General and others are running out, no doubt heading to the control room. The three techs are dumbfounded, wondering what will happen. Alek sits in his chair thinking about his son and the message he has sent to the govt. He thinks of the American retaliation and waits for it.

PART II

1995: Toronto, Canada

CHAPTER TWO

Ch. Two Title

Arrangement

Twists:

- the device itself first, during TLB
- future people second, during TLA
- B is from future third, during TLA
- B is not dead? fourth during TLC
- I Prologue
- II Timeline B A&G jump. Take a break to show:
- - IV Recap end of Timeline B from B POV then:
 Timeline C

V Timeline D

 $\mbox{\mbox{\bf P2}}$ - main objective is to get the device working and jump to $\mbox{\mbox{\bf P4}}$

Who is opponants, what is their objective

This part shows a glimpse of the bad guys, B dies to reveal it.

Presumably, the bad guys are trying to save their timeline

- normally, the T was a russian scientist, why is he in canada?
 - if no one has tech, FF guys can invade easier in that TL
- the bad guys did some big hit on him that failed but forced him to come here?
- russian facility was destroyed so he had to find other work, came to university
 - he never persued the research tht was interrupted
- bad guys finally found him again and try again, B stops them

Step to get device working?

- identifying its potential, T will know its familliar
- powering it, low power, super limited effects, spacial only
 - gaining access to more power (reactor)
 - b takes it one time to goto P4, comes back with a better

fixed powered device

- new device has time dilation effects

Conflict

The badguys base in 1995 uses some spacial effects

They get captured and taken in there during when B is gone

Thus they dont have the device to give them, they know

nothing

B returns injured and tracked them down to help escape

During the escape, B dies but he reveals the enemies to be

crazy alien dudes

They escape and take new device to T

They discover time effects and see B's coords

Use time effects to dodge around the badguys

Eventually jump to coords

P3 - main objetive is to catch up to the USSR in research and introduce the bad guys, kick off P2

 ${\tt P4}$ - main objective is to fight the badguys and explore the super powers of the device more

P5 - save the world

TIMELINE B - son interferes

- A is urbexing, sees T get mugged? and watches someone save him (its B) (B loses device also)
- checking it out after the fact, A finds a device (from bad guys, maybe one guys is dead)
 - two boys at school
 - A examines a wierd device
- A takes it to school to show B, B loves it (thinks its his)
 - T takes it
 - B is super upset (needs it to get home)
- B gets A to help break into school and get it from $\ensuremath{\mathtt{T}}$ office
 - They break in, T comes back they get caught
 - T is super paranoid of late, and has a gun
 - ?
- when they get ${\tt T}$ on their side, he can help examine device
 - Add in B's girlfriend
- B shows up one day with a broken wrist (return point for B from $\ensuremath{\text{TL C}}\xspace)$
 - ?
 - B dies
 - ?
 - A eventually figures out stuff and jumps to future with

- this becomes TIMELINE C

Р2

Chapter layout

1

A is out urbexing somewhere, maybe he gets guards or cops mad at him, and they chase him. He is in a subway tunnel?

Screw it, he is a photographer. Urbex to find good shots.

While losing them, he sees someone getting mugged?

Attacked? By 2 men

He wonders how to help and starts to get down when another person appears to save the person.

Person kicks one onto the tracks where they break their neck.

The other runs away, the saviour helps person up and they both run away.

A emerges from the tunnel before a train comes. Passes the body, he checks it out and finds a device.

The train comes and he gets out, the body is destroyed. Station emergency happens due to body.

#

B is an engineer student

At school meets his buddy B going to physics class.

Talks about crazy night and shows some shots. Has a new digital camera, B is not impressed.

B spies the device. B gets excited campus police come pick A up.

He is known to police as a common pickup for trespassing - $\ensuremath{\text{why}}$

Prof goes into the hall with the police to see what is up.

Police ask him to empty his pockets and take the item

They recieved a complaint of stolen items at the subway

(from mugger that ran)

He goes with police and leaves B

2

At the police station, they ask him questions about his night

He admits to trespassing (again) for photos. But nothing about the death/mugging

Asked about the saviour, doesnt know.

When the police are done, he is taken to the dean, ${\tt T}$ is there too

They are upset at his problems and decide to confiscate his camera equip, which belongs to the school.

They take all the gear including teh device that he claimed was camera gear. He protests, no good.

The gear is locked up in the deans office in science

building.

#

At the hanger later after school A tells B what happened B is totally pissed, more pissed than should be.

He tells A to go get the item. He will go alone if he has to.

B appeals that they shouldnt take it, its not camera hear A finally agrees

#

B has taken his GF along, introduce her here. She is important for getting into offices.

The GF is super interested in the red zone, trying to save up to get in there.

She learned all kinds of criminal skills to help out in there, says urbex is a great skill to have

How did B meet her?

They break into the deans office, to retrieve the device.

Its not there. Where is it?

At the newspaper office? They plan to go there to check it out.

On the way is Ts office. B wants to get in there since we're here anyhow.

B is looking through papers and stuff, cant find it, mutter about maybe its too early.

A spies the box of camera gear. He excitedly says here it

is! Wtf.

T shows up to the office with a binder in hand.

Wearing coat A recognizes from the subway. Tries to talk about it.

T is all freaked out and has a gun. Is very paranoid and makes them leave. B doesnt want T to see him clearly. He wantsto get away.

A tries to get his stuff but cant. T plans to expel them. Makes them leave

3

A doesnt care, B cares a lot (LG alignment)

After school A decides to talk to T

T doesnt want to hear it, she is appalled by their actions. What about you! Taking my stuff.

They keep argueing back and forth.

B cuts in and starts talking about the theory, tips his hand.

B is trying to remember what he heard, growing up with the theory from his dads work, he doesnt really know it.

B lets T look at him and recognises him.

T is shocked, says to meet at night at the office.

#

PART III

2013 - 2038: Washington, USA

CHAPTER THREE

Chapter Title

TIMELINE A - original

- what is the conflict here? Need to spice it up, though its backstory govt espionage?
 - american scientist in toronto comes up with theory
 - scientist gets killed by russia
 - russian scientists use theory to give russia new tech
- usa firm tries to recreate the theory and fight back, they are govt contracter needing funding

They never succeed in replicating the tech. They have constant battle for electrical power that causes blackouts during tests. They have no particle accelerator like russia does (they use europe's)

- USA eventually carries out a heist to steal a device from russia

want to shut down firm since they got it, firm says only they are qualified to reverse eng it, reluctant agree

- russia steps up counter espionage now, mai nresearcher and his familly are under attakc and are super protected
- breakthrough rift opened, meet future guys. they want place to settle, future earth is dead. can provide power

(they had run away green house, they have dyson sphere but lack of resources means it is close to the sun, earth has low amount of sunlight

meant to help earth cool and power it,

they decide to fuck it and wait for contact, they dont initialte contact since that would be met with hostility.

reft open is a known event to them but they dont want to change the timeline, no choice now.)

- they blackmail scientist by threatening to kill the son they nabbed form the near future when security is lower
 - man agrees
- he plans to send his son back in time to save him and gives him a mission - save the prof - think that the son wont be here to be nabbed now.

1995

theory

1998

There have been 30 years of efforts by russia

What took so long

2004

failures

2013

completed the LHC - its important

2020

Working prototype for spacial effects

2027

Refined spacial item, prototype time item

1 2028

A presentation is being shown to govt investors. The presenters are the CEO of the firm and lead scientist. The CEO is the father of B.

Investors are all representing govt divisions they hope to get funding from, defense, cia, army, etc

Presentation shows the history of the science:

- american scientist develops a theory in 1994
- death of scientist by russia in 1995. Thought to be an assassination.
- development of tech by russia through 2004 rough guesses about what they were doing. Suspect they are working on similar thing thats why the hit.
- evidence of investment in LHC and focus on LHC building, completed in 2013. Some speculation about why they are intested

in this, LHC is about particle interactions, just like the theory, high energy interactions.

- espionage reports on development up to 2020 when spacial effects are witnessed. Russia has rooms that no one can enter with a device because the spacial difference rips you apart.

 Device is needed to bubble yourself then merge bubbles. The current devices are truck sized and cumbersome, require massive power drains
- report on last year, better handheld devices for spacial and this... evidence of a temporal device. Russian spies are seen using it to stop time for a second or two speed up their frame to be faster. The only evidence is result of a special targettedsuicide mission whose only goal was to get this picture.
- present case for investing in firm to reverse engineer it. The lead scientist has unique insight into the theory to put it together.

Lets present this info backwards leading from clues today back to the killed scientist. They are first to get this far.

Execs talking about it after wards, if they dont get investing, they will keep trying on their own using 2ndary income

What is that? Something useful by B and kinda evil

They do get the funding but they are expected to give super results, they wanted a lot of money.

2 cut to 2030

Repeated failures, blackouts

3 cut to 2032

Heist and gaining the item

4 cut to 2033

Researching the item under higher threats

Blackouts persist

Introduce a security guard as a main character that helps protect B and the familly

B can remeet this guy for the first time when he comes back and everything is different.

At one point B has to go with him to his privates places to be safe. This is how he find that guy later.

5 today 2038

The rift opens, meet the ff guys

Send son back

#

Excerpts from Sebastian Tillmann's Journal

July 2028

Had the big presentation today for the US government. It was pretty unnerving to have all those serious faces disassembling everything I say and don't say. I was glad to have Harold with me to save me from doing all the talking. I don't know how much those bigwigs could follow the physics but at least it got the eyes off of me for a bit.

All the big names here present there, which was a good sign: DoD, CIA, A few generals from the Army and Air Force.

There were a few tough looking guys that never really said much, just that there were from some interested contractor. Pretty shady, but as long as they have money, that's all that matters. I know that the US hasn't been a big player on the global field in over 30 years, but losing the cold war to Russia certainly hasn't shortened their pockets any.

I'm going to attach some of my notes, research and rough drafts to this entry for posterity. Who knows, maybe one day I can look back and see where it all started! Should hear back from someone in the next couple quarters I believe. If we don't or no one bought our story we will have to scrap by using the funding from our railgun division to keep Harold in the green for this new project.

Rough draft

Avery and other people that want to give us money. We at Tillcorp would like to present to you something that we have pieced together using some of your own files that you have graciously allowed us access to. It is something that you may have some knowledge about but I believe you will be surprised by the complete picture and the opportunities that are now available to us. In the end, we are seeking funding from any interested parties to help us get new facilities off the ground to to develop new technologies that will rival some of the Soviet Blink technology we have seen in the last few years.

Let me take you through a reverse timeline, starting with recent events and working our way backwards as we show you how it all fits together. As you know, some of the top secret reports that came as a result of activities abroad in 2020 contained extremely disturbing entries involving impregnable Soviet facilities. Literally impregnable. Agents in the field reported watch entire convoys of trucks drive into small warehouse style buildings. The thought at the time was that the Soviets had large underground complexes which these buildings were the entrance to. Attempts to view these complexes with ground penetrating radar failed, and attempts to enter them physically cost the lives of many field agents. One particularly curious report was that one man watched his partner "get"

stretched into ribbons like red toffee" when he got too close to one facility, yet trucks could be seen coming and going with ease.

We believe that these buildings in fact exist inside a different frame of reference. A frame where the quantum rules are altered such that space is far more compact there than here. I will return to this hypothesis in a moment.

Only last year, the Chinese Prime Minister was assassinated in a brilliant, impossible sequence of events that baffled the intelligence community. Prime Minister Wu was, in fact, on board his private jet travelling at supersonic speeds over the pacific when he was struck by sniper fire and killed. This fact defies all logic, certainly until we apply our hypothesis to the facts. If space can be compressed somehow, we must assume that time can as well. Space and time are well known to grade school children to be one and the same, due to special relativity. If a sniper was able to compress time, he could watch the world around him in slow motion, or even at a stand still. A sniper paratrooper could in theory, make this impossible shot using such technology.

This is corroborated by the many reports of Soviet agents operating in foreign countries without fear of capture. Since 2026, not a single Soviet spy has been apprehended, all are superhumanly elusive. The only hard data on this front was this shaky photo beamed to the Defnet during a suicide mission into

the Ukraine.

That is all recent history that you know better than I.

Lets go back farther to 2013, and the completion of the Large

Hadron Collider. This construction was heralded as a huge

undertaking and a giant success in mankind's quest to understand

the universe. It took unprecedented funding to achieve this feat

and, if you look at the handouts in front of you, over 60% of

the funding can be traced back through shell companies and

offshore holdings to the Soviet Republic. Indeed, as the only

remaining super power, who else could have provided so much

funding?

And why would the Soviets be so interested in the worlds biggest particle accelerator and collider? We were told that the LHC would break particles down into their constituent particles in order to learn what they were made of. That it was equivalent to a chaotic explosion at the quantum level, unpredictable, unplanned, and decays so fast, unharnessable. But what if it could be predicted, planned and harnessed? That might be worth \$10 billion to have a machine that could plan and predict particle interactions - if there was a use for such a thing. Lets keep going.

The LHC was in the works from as far back as 1998, but solid efforts to build it started in 2004. Something else

happened around that time as well. Dr Maria Falwell, Doctor of Physics at MIT died in a car crash in 1997 in a certain Paris tunnel while on vacation. An unfortunate accident, some would think but not everyone. The Pont de l'Alma tunnel is often used as an assassination location by the SR when they want to send a message. At the time, the message was heard, but not understood and the message was soon forgotten and buried. We can not guess what the Soviets were doing between 1997 and 2004, but you can be assured that it was related to the LHC and to the curious report of late.

Dr Falwell had, since 1995 in fact, been working on a preposterous theory that particle interactions were not dependant on time or space. Quite the contrary, she posited that particle interactions, the right particle interactions, could be made to create time and space. It was entirely theoretical brain candy, completely ignored at the time as poppycock, but someone was listening. That message was not lost on the Soviets, who took her theories into the practical world.

Gentlemen, Tillcorp has followed the breadcrumbs, we have seen the Soviet's footprints in the sand that no one else has seen and we are uniquely fit to follow them. Dr Harold Park here was instrumental in understanding the physics involved here and, with your help, we can reproduce the technology of the Soviets and surpass it. Dr Park will now explain more.

Various papers and newspaper clipping are attached:

Tillcorp Defense Logistics brochure

The Magfist R3: Reliable Performance, Proven Results

In 2020, working with the US Army, TillCorp Logistics ushered in a new era of weapon by introducing the R1 Magfist Railgun. Since the, three generations of railgun technology have been developed, resulting in the R3.

Since appearing in 2022, Magfist railguns are now deployed on the Army's Decker class tanks, and Naval New York class assault ships.

The R3 Magfist fires a 0.5 pound steel slug at speeds of Mach 12. With new breakthroughs in capacitance technology, the R3 utilizes 8.74 MJ (megajoule) of energy to fire up to distances of 250 miles, with a 0.0005 radian deviation.

Having been used successfully in over 30 conflicts, the Magfist has achieved a record of reliability unmatched by other high energy weapons.

Military debrief on the events of operation Keyhole

Declaration of Colonel John P. Sherman

I, Colonel John P Sherman, pursuant to 92 U.S.C. 1743, hearby declare as follows:

(sections that are highlighted:)

- 19. On the evening of Aug 23, that same year, Agent Jones and I approached target building designated B4-1 from the south. Agent Jones and I stayed hidden for three(3) hours making notes on the arrival and departure of trucks into the structure. At 0423 a series of four(4) semi trackor trailer trucks approached the structure. Agent Jones made a note that those trucks could not possibly fit inside B4-1 and wanted to get a closer look, using a window as a vantage point. I advised against such action as it was outside mission parameters. Agent Jones broke cover at 0431 and approached the window at a run. Approximately 30 meters from the structure Agent Jones seemed to explode though no weapon discharge was heard. As I watched the event occuring to Agent Jones, I saw his remains get stretched into ribbons like red toffee towards B4-1. I then abandoned my position and concluded the operation.
- 20. This declaration is based on my own personal knowledge and information made available to me in the course of my official duties.

Newspaper clip on death of President Wu

2027-年11月11日 星期一

【明報專訊】國家主席胡世强乘搭之私人噴氣機飛過太平洋時不幸遇上空難,即時身亡。

Article follows.

Photograph

Attached is a printout of a high-def motion-corrected photo showing a man in a dark suit holding a tablet sized device with a blurry green screen. The man appears to be standing inside the lower half of a mostly transparent sphere which has the appearance of a soap bubble.

Newspaper report on Dr Falwell's death

Six-car crash, fire in tunnel

Published: 31 May 1997 at 10.24

PARIS - Three vehicles caught fire in a six-vehicle accident that blocked a tunnel at Pont de l'Alma early Saturday morning, killing two people, injuring three and causing a

massive traffic jam. The flames spread from a truck to a pickup at the accident scene in the tunnel early Saturday morning.

Photo taken by Samantha Sorin. The police and rescue centres reported they were called to the accident around 4.30am.

confirmed dead are Dr Maria Falwell of the United States, and Pierre Bessey of Paris.

Journal publication

Super-symmetry and the Unification of Fundamental Interactions as applied to Quantum Gravity

Presented by Dr Maria Falwell et al, MIT, Science, May 1995

Synopsis: Particle interaction can be more accurately predicted with an error rate of +-0.05% using consequences of applied geometry presented herein. When unified with quantum gravity, the model holds only in the absence of locality and unitarity, eliminating these concepts as being fundamental constituents of nature.

November 2028

Just heard back from the Department of Defence and they agreed to four years of funding at the rates we set forth!

Apparently they had been figuring out the same chain of events that we discovered, so that wasn't new to them. Maybe our level of research and deductive reasoning dazzled them! Truthfully, I think it must have been Harold's excellent knowledge of the theories in question that sold it. I know I can't follow him when he starts going on about symmetry this and antigraviton that.

So it looks like we will have to open a new facility for this new line of research. Ideally, we can find some space available in Seattle, where the rail gun research is done, so I don't have to keep flying across the country so much. I think I'll let Harold name this project, he is the closest to it. So much to do now: new offices, hire personnel, equipment to purchase and install... it will probably be a good year before we are ready to really dig into the new work. Damn it, that only leave three years to prove to the military brass that we deserve more money. Well, if what Harold says is true, this new tech should result in us essentially printing money. I mean, manipulating space and even time is something from science fiction, but its the only thing that explains what the Reds are doing. I said it myself at the presentation and I barely believed it.

The reds sure have a huge head start on us, having their own collider and who knows what kind of power supply will be required. Have to check with Harold on that. Christ, they have

working devices in the field now! Its still bordering on unbelievable sometimes. We better be up to the task.

December 2028

Merry Christmas! We managed to get about 50 acres outside

Seattle for the new division, well its Kirkland but close

enough. We also have a name for it - its the Amplidyne Particle

Research division. Meh, I think we need to work on that a bit.

Put out a bunch of ads for office staff and some high energy,

quantum scientist types. The theoretical folks. I just hope we

can get a few guys that aren't straight out of grad school.

There's a lot of weight on Harold to interview them. God knows I can't. This project would really be nothing without him. Gotta remember to get him a decent bonus this year. Still, I'm not doing nothing - have to still talk to Seattle City Light to get a proper electric feed brought in. I don't know what type of business was in here before us, must have been a warehouse judging form the pathetic power supply that was run in here.

#

Excerpts from Sebastian Tillmann's Journal

March 2030

I didn't want my first big update of the new year to start on a sour note, but I have put this off too long. It's as if by writing about our progress, specifically lack of progress, to this journal it somehow becomes more real. But, I have been told that there are no true failures, it is only more information that we didn't have before. That may be true but it doesn't appease the directors, or the US Army.

So, APL is fully up and running - that is Amplidyne

Particle Labs. I like the apple moniker, it somehow makes the

prospect of distorting space and time friendlier, more cuddly. I

am told that it's not even unique - that there was some other

company called Apple back in the 80s? They made some sort of old

8 bit computers or something. Anyhow, didn't get much attention

from the market so I'm not too worried that they might rise from

the grave to make a claim on the name. As painful as it is to

admit, there has never been a successful computer company from

anywhere but the SR.

Harold's team currently consists of six science guys doing

the main figuring out. They also have set up a second team to do more of the practical grunt work and report writing. I get all the briefs on their progress but I don't get involved personally. This things is as much Harold's as mine, maybe more so! Don't let him read this.

The theories that we are starting with are all quantum field theories that predict the interaction of particles. The main breakthrough that Maria was killed for was that there is a single simplified method that can replace all the various field equations, which is a much better predictor (100% accurate actually, for known interactions). Harold is extending this predictiveness to examine particle interactions that are not known, meaning no one has seen the interactions happen - though they must happen naturally. This must be the key to unlocking the red's tech but so far all probing hasn't gotten us anywhere. There are so many possible particle interactions, we only just begun to examine some of them. The thing that keeps us going is that we already know the answer, just not how to get there. Maria herself hinted at the possibility that some interactions could happen without a need for time or space for the interaction to happen in. The observed effects of the red's tech also suggests that. We just need to keep looking.

Once we do find an theoretical interaction that doesn't need time or space, I have no idea how we would set up that kind of test environment!

Isolating a candidate interaction isn't everything, of course. We still then need to make this interaction happen in laboratory. This is what the LHC is being used for, clandestinely. There is also obtaining the particles involved in the interaction in the first place. It seems like we have a long uphill climb still ahead of us. One idea is that we can use a nuclear reactor to get a steady stream of some exotic particles. I'm not the biggest fan of installing one here anyohw, no matter how small, purely on a long shot, but at least it some step forward.

The reactor is might also be a good spot to create interactions since we don't actually have our own accelerator, assuming that fission with neutrons is a candidate interaction. We can fire in streams of the more common particles in there anyhow, as a first step. In theory, we could get streams of the more exotic particles if we use Maria's theory to predict the creation of the particles we need from more common particle interactions. I don't see this scenario being possible in a reactor though. Overall, don't think really a smart idea to try to rely on runaway interactions to maybe hopefully do what we want. I'll have to figure out something else as soon as I can and get Harold on board. Maybe if I can even get Lee on my side we can turn Harold together.

The rumour mill has long held that there is a particle

accelerator in Texas build back before the LHC, but no official proof exists anywhere. Not in the United States archives, and certainly not from Texas itself. If only Texas had stayed on as a part of the US following the 1986 events, it might make gaining access to it a lot easier.

On other fronts, production of the new MagFist is on track for shipment by third quarter. The railgun business pretty much runs itself now since are well out of the development phase, and brings in a pretty good chunk of change for helping out with Amplidyne. Sometimes I wish we could take on the SR as a client, that's where the big money is but we don't want to rock any boats. Maybe a shell company though - haha! I'd really like to see us starting to reduce the size of the weapon though. It's going to be important if we ever want to market these things to anything smaller than a battleship or specialised heavy tank.

Brian is going to be finishing up grade 8 in a month or so and he's already bugging me about helping out at the labs this summer. The kid loves gadgets like nothing else. I don't know if either place is a good place for a 12 year old to be goofing around in. Maybe when he is older. I'll have to put him off this idea for a bit and help him find another summer activity. Better yet, maybe I can send him to stay with Grace for a few weeks in June. He hasn't got to see his mother a lot during the school

year. Its only fair, I suppose - to Brian, I mean.

May 2030

So much has happened in such a short time. I'm only recently able to calm down enough to update this journal. The containment facility has been completely shut down - well whats left of it - has to be, obviously. Tillcorp as a whole has to under go a full investigation and there is international committees that need to evaluate us now. Its a nightmare. Talk about tipping your hand. Let me start at the beginning.

It was a big surprise to me, but it turns out that you can buy a nuclear reactor off the shelf, ready to go. I know this might not shock many people since its 2030 after all, but I was shocked. Anyhow, we got a research reactor dropped off in late march and built a containment facility around it. These research reactors are pretty small compared to the big reactors that I see at power plants. They don't really create a lot of electricity; their main job is to spit out a stream of neutrons. Harold is fairly sure that neutrons are required for the interactions that we are after. Not sure about anything really, but its what we are starting with. We rigged up an array of feeders to supply other particles to test with. The usual suspects: electrons, protons, hydrogen nucleus. Even photons and gamma rays and the like though I doubt those will result in

anything. Problem is that even with small linear accelerators, the energies involved are not what we need it to be. So we spent a while throwing stuff together in the reactor core and watching nothing interesting happen.

After a couple weeks of this Lee, on the practical team, had an idea to take a closer look at neutron predictions in the Maria theories (as we call it) to see if we can get a stream of more interesting particles. Turns out there was a configuration of two neutrons and a proton that resulted in some type of quark. I don't know which. It involved some nuclear reactor jury rigging to get two streams going at the right angles, but by arranging as precise as possible, we got quarks being generated about 10% of the time. Harold said its pointless since they would decay pretty quick and we had no third neutron stream to aim at it. We did have an electron stream that wasn't used so we pointed that at it. Well guess what - nothing happened. We let this configuration run for a week or so with no interesting readings detected on any sensor. Eventually we scheduled a shutdown of the streams to happen at the end of the day and went home.

Later that night, I found out on the local news stream that Facility N (the reactor building) was the source of a fair sized explosion. The local fire department was already on scene to put it out, but they had unknowingly been exposed to the uranium debris that was around the site. We lost Dale and Shawn from the

practical team who were monitoring the shutdown that night. There is nothing left there to salvage. I'm not much for expressing myself on paper like this, but I had never been so devastated, angry and excited all at the same time. Harold as well. Those few days were just insane with the media, the police, government nuclear oversight people, plus the funerals to arrange - on top of which we had no time to figure out what happened.

Its been a few weeks now so we can be more objective.

Perhaps we're just numb to it. In any case, the thought is that we hit upon one of the desired reactions, we don't know which, and the containment chamber succeeded in doing its job. The reaction that was happening continued throughout those six or so days that it was running, but due to the time or space dilation the reaction was stable. Well stable enough in our frame of reference. If space was dilated, the reaction would have had more space to react in that the chamber normally provided. When we shut down the reactor, the reaction suddenly had much less space, experiencing a sudden compression similar to how a nuclear bomb is triggered.

If time was dilated, that's a tougher one. The thought there is that the reaction was in a runaway state but was exploding in slow motion due to the dilation. Again, the shutdown would have returned the explosion to normal speeds. The amount of energy needed for time dilation, theoretically, is

beyond enormous though. It is very doubtful that that little reactor would have been able to pull it off.

The final tally of this catastrophic mess is that we need a new reactor, new particle sources, hell even a new building.

That are is a no go zone until its cleaned up. Some of the staff are referring to it as our own red zone. One interesting report that came to me suggested a new method to carry out our tests.

Not sure who authored it - one of the recent grad students that I was loathe to hire, I think. It involves making use of our railgun technology to cobble together a particle accelerator. If we can ramp up the scale and get the fields to follow a curve, it might we possible. We have never attempted to fire the guns in anything but a straight line, but we wont be shooting chunks of steel either. Its a promising avenue anyhow. I'm sure the next entry here will have more to say on this.

I'm really glad Brian was convinced not to come here this summer. We really aren't that prepared for the things that we are playing with and got a heard lesson in that. Also the entire world is now aware that we are doing something interesting. I'm sure the astute minds in the SR have already started figuring it out. That's gonna be bad news.

Sept 2030

Its been a few months since we started to move over to

building our own mini particle accelerator in house here. With Facility N still well and truely out of commission, we have been scrounging for more real estate to build on. Finally settled on moving the labs and offices to an proper office building that was available over on the east side. That way we can clear out all 30 acres here and use it all for the accelerator.

We had to use the full production capacity of the factory to create enough railgun parts to create a big enough ring. It wasn't very hard to get a circular railgun in place, the machinery is all the same, just the track had to be curved, which was fine anyhow because the weaponized tracks were entirely unsuitable. We needed a track that was fully closed anyhow to contain the particles. These things also come ready made. We got ourselves to the front of the line for delivery by throwing some green at it. In the end, the only downside was that all of our customers waiting for new R3s will have to wait a but longer. Since most of those customers are the US military anyhow, its a wash. Remember that part where we can print our own money when this works? I have to keep remembering that part!

Another part of the installation was the industrial microwave oven. That thing is pretty scary actually, but its needed to create some plasma. The accelerator containment ring needs to be filled with the stuff for it to work. I'm told its completely safe as long as you run it with the door open.

Now we get to the power problem. A you can guess, we need a

lot of it. The regular R3 railgun uses 3 million amps in total for a few microseconds. It sounds like a lot, but the power housing that the gun comes with can do that well enough. These things work on mobile tanks after all. Now the problem is that the accelerator runs for longer than a few milliseconds, plus it is much longer that the standard R3. We need to sustain millions of amps for maybe minutes, over a length 50x the length that we usually deal with. City Power was already aware of our special needs when we first approached them when hooking this site up, but they really didn't like the sound of what I was asking for this time - and I even downplayed the numbers for them. Well, they did finally agree as long as we promised to bankroll a bunch of wind and solar farms for them to help pick up the load. I readily agreed. Don't know when those things are being built, they aren't built currently, but they went away pretty happy and we don't have to pay for anything until they start construction. I get the feeling that they don't really believe us when we say we need to be able to draw that much power. I'm not sure I do! The power company guys should be here in a few weeks to drop a of a lot of equipment for us, transformers and relays and the like.

This will be the biggest build we've ever tackled. I can't wait to see what we can do with it.

- - -

First full system power on test today! The full apparatus can be run by only a couple guys since it's largely automated, so Harold and his top researcher Paul were on hand to do the honours. Lee has been away for a few weeks on vacation. None of us really want to be taking vacations snce it means being away from the action, but he really needed it. The practical guys have a much harder job than Harold's team if you ask me.

Anyhow, the three of us were on hand to power up the system. We ran it at 1/10th power just to exercise the magnets and send a few pulses around. We haven't got the plasma in there yet either. It went pretty well - no explosions or meltdown to speak of.

- - -

Today was the day for our first full power particle introduction into the system. If you live in or around the Washington and California area, I probably don't need to tell you that today is Sept 14. The test started fine with the system ramping up from 10% at 2% integrals. The containment ring was doing its humming and vibrating thing. Obviously, no one is allowed anywhere near the thing while its on, but you don't have to be close to it to hear the hum. You can feel it too. Its quite unsettling.

The plasma generation has been fully put through its paces and works great. It doesn't need near the same power supply as the ring, so its not a concern there. It takes about ten minutes to fully fill or evacuate the ring. Again, no one is allowed anywhere near this thing when this is going on, especially the evacuating phase.

We had the system up to 74% power and started to open the neutrino door when the first power drops started popping up. The system immediately started shutting down. Uncontrolled supermagnets pulling at each other asymmetrically is a really bad thing that we try hard to avoid here. That type of event tends to twist and fold up large hollow metal rings. Not to fear though, the system performed a safe shutdown and nothing was the worse for wear. Harold and Paul had started to dig into the logs to see if we had some component screwed up somehow that didn't present itself as a problem at low power when we got the phone call. That was when we learnt that we had caused a blackout throughout most of California and Washington - well I would say it was more of a brown out up until some of the transformer stations melted, then it was a blackout. But that's not really our fault if the power grid equipment isn't able to handle the loads that it purports to handle.

The most troubling part of this whole event is how the reds will read it. We already put ourselves on their radar with that whole explosion fiasco that the vids wouldn't stop spinning. A

power draw of such magnitude to blackout two states is also bound to attract some unwanted international interest. Some of our government advisors keep pressing for a security force to be present here on site. I suppose that it might be a good idea after all. I mean, they did kill Dr Falwell to stop anyone following up on their developments. Perhaps we have been lucky these last two years.

Well, I'm entering this entry on my port while it still has batteries so I have to cut it short. I'm sure we'll be buying a new transformer station in the near future.

- - -

Power is back on thanks to some creative rerouting by the power company. We are definitely buying a transformer station, that was the deal we worked out with the city. I wonder if you can possibly imagine how royally pissed off they were. That was not a fun meeting. Of course, the true reason for the blackout could never be made public so they cooked up some story about how a guy pressed the wrong button or something. They made up a guy so that they could fire him, the whole song and dance. In the real world, however, the mayor wanted to shut down APL entirely saying that it was too dangerous and reckless an enterprise to have in his city. Super pissed. Must be an election year or something. The only thing that saved us was a

quiet visit from some senior directors of the CIA. I'm not sure what they said, but the mayor's jets were thoroughly cooled after that. We still got stuck with the bill for the power station though. They didn't really say anything to me but we have a review scheduled in a December to look forward to.

I think, in future, we should abandon the gradual ramp up by 2% steps and just slam the thing wide open. After all, thats how the railguns work so we know that the tech can take it.

Being extra cautious and taking it slow probably taxed the grid for far longer that was required. We did have to promise the city that this event wouldn't happen again and that we'd be taking steps to scale down our experiment's power usage. I think this change outlined here should take care of that issue nicely.

Lee is back in the office again after taking his first vacation here at APL. He seems really excited to dive back into the science, having missed a lot of the recent developments. I hope his energy and enthusiasm rubs off on his team - I can't afford to have everyone take a vacation at this critical time!

Dec 2030

God damned government bureaucrats! The don't have any idea what we are trying to do here or how hard it is to really create something new! All they know about is schedules and ROIs.

Met with the usual suspects yesterday in DC about our

progress and funding reassessment. It was nearly all the same crowd as before so we didn't have to rehash much back story. Whitstone took the lead this time and really grilled us about the whole blackout thing. I admit that we were somewhat misleading to the city of Seattle but they weren't going to allow us to proceed. I had to do something to keep the project in motion. Surely it isn't in their best interests to give up at such a minor obstacle as that. They wanted detailed information about why we needed all that power when the LHC doesn't use nearly that much. After explaining about the railgun accelerator, Whitstone and General Avery really tried to tear us a new one. Given the time frame, resources and funding we have, I don't feel the least bit apologetic for anything we've done and told them as much. Results are what matters in this venture. Anything else is just wasting time. They were fairly happy to learn that we had moved on from nuclear reactors though, so there is one silver lining.

When we were done presenting all our findings and theories so far, (I don't know what the point of those hours were, really - none of them had any science advisors in the room with them) they started in with the schedules and ROIs. If they didn't see significant 'viable' results from us soon they wanted to give the contract over to DarkStone. Fucking DarkStone are always riding our coattails for a decade trying to weasel their way onto our market share. Who cares if they have the best SSTO

jetcrafts - they don't really stand up against a MagFist punch
do they!

So apparently we need to get some kind of working device demonstrated by yesterday or they are pulling the plug on the cash flow. Weapon systems brings in a lot of revenue, but I don't know if we can carry on researching on our own. Plus they have the political carte blanche to throw around such as during the blackout incident.

The good news is that they have pulled a miracle out of their ass and arranged a treaty between the US and Texas that lets us get access to that sweet particle accelerator. They really don't want us continuing to cobble together one on our own. Hopefully it does what we need. I hate to be off site using other people's gear but it may be worth it this time. I wish we could pack up their accelerator and bring it back to APL with us.

Oh also we are being strongly advised to take on a security detail both on site and to be with personnel whenever we are out on the road. They actually made it a part of the revised contract, but they are paying for it so I'm fine with that. As long as they follow direction from Harold and I, that is. I don't want to be prisoner trapped in my own company labs.

May 2032

Talk about the recent efforts. Whats up with texas accelerator?

Not high powered enough

Fighting with the govt about power - need far more power for time dilations

Talk about security detail but no threats

DarkStone is doing something that tells us they are stealing secrets. What is it

They figured out something about neutrinos - the best effect so far was that quark experiment that went wrong.

Something is eluding them

Lee is helping secure all the systems?

June 2032

Government pulls the plug, since they got a device.

Have a meeting about it. Tillman tries to get them to give the device to $\ensuremath{\mathsf{APL}}$

- - -

Back with the device

Exictement - describe it

Revamping the railgun accelerator and more fights with the govt/city because texas was no good

July 2032

First attack - break in attempt to get device.

Hit office and home , worried about Brian. - he is 17 now Mike helped run off the attacker

- - -

Update on device, describe how it works. Efforts to take it apart.

They figured out some basic effects and discovered foam interaction.

Oct 2032

Successful use of device to create a larger room. Discovered the barrier stretch effect.

- seattle blackout
- city/gvovt arguements

This explains the [xx] incident from 28.

Trying to replicate it without using device tech

Something about getting brian involved - he desnt want to go to university yet so getting experience here.

Mike and brian are paling around.

Lee is doing something to help him steal tech and sell it. What?

Darkstone is pissed about losing the device so they are pushing forward on their own using lee's help.

They had some bizzare tech accident

Dec 2032

Discovery of time effect and power needed

No way they can ever do it

How are the reds doing it? A puzzle piece is missing

CHAPTER FOUR

Chapter Title

Aug 2033

NOTE

All this time when dilation fields are active, make a note of the air pressure changes. Making a larger space will create a rush of air into the space, slamming doors etc. Pupping bubbles that are compressed will push all that air out .

By this time, they are providing some basic spatial devices to the govt for a big payout. Still no change in power requirement or availability. They have so much extra income that their lab is pretty swank. There is an entire protected area for the lab that is spatially dilated. This requires a constant power source to keep the field running - they have a full sized nuclear generator running inside the field so that its not

obvious from the outside. The rail accelerator is also inside the field. Maybe they are using ships engine generators so as to not require a big staff. Maybe they hired staff that are unaware of the time dilation due to the entrance portal. Its like an elevator that crosses frames so you aren't aware.

The first bit of drama has to be catching Lee being the bad guy stealing stuff. Mike needs to come to the rescue and take Brian away. Perhaps this whole part is all from Brian's point of view. We need to flesh him out more, though the reader already knows Brian from the first act.

The time dilation is entirely figured out and ready to go only there is no where enough power. Speculate on the reds.

Multiple power reactors?

How is the interactions dealy deal working? They are manipulating the foam - how is that done? The particle interaction was at the foam level which was why it was so elusive. They still need an accelerator to fire a neutrino at the foam particle, lasers or something are used to catch and suspend a foam particle. Idea: a high energy disruption wave is needed to perturb the foam and make it 'froth' - this is the rapid create/destroy of foam particles - unitrons. Once the foam is excited, before is dissipates, lasers locks on and catch a unitron and hold it for collision with a neutrino which created space or time.

The best you can do is to create so much time that the

outside reference frame is close to a standstill. You cant go back in time. But we need to be able to do so. If time and space are actually real, then some combination of the two can trigger what we want. We already know the FF guys are met in a higher dimension, passing through a dimension lets us pick a return time.

Learn of this fact from talking to the FF guys - they are from future so how are you here. Oh time has no meaning in this dimension.

In this first scene, we need Tillman having a reason to walk around and describe all this stuff. What is the conflict - something with Brian?

Scene LEE POV

In the lab, Harold has figured out the higher dimension thing. Lee is super excited to learn about it but Harold keeps it hush hush. Lee has to get the secret or his evil bosses will be really mad at him.

We should already have diaried about attempts to breach the spacial field but seeing messed up bodies as they tried to match the fields. Have Lee provide the bad guys with the right field numbers. We thought he was working for DarkStone but it is really the Russians - maybe DarkStone is a front. Have the

leader guy be blinking around with a time device.

The russians are really eager to get at the dimension stuff because they don't have it - finally something new that Tillman has. They don't care about anything else and will burn the place down killing all to get at it. Lee doesn't like to hear about this part of the plan and has the usual change of heart. He wants to warn everyone, if he can get ahead of the reds but he cant - they stop him or leash him up somehow. He decides to change the field frequency so what he told them doesnt match even if this will mean people cant leave - they dont know they are altered more than expected.

He is doing this when Harold finds him and stops him - the change in frequency will stretch everything in here making the reactor blow. They have a better idea to bubble individuals and pop the bubbles shredding the occupants. They need the Russians to stand still long enough to bubble. They get a few at a time - its good. Somewhere along the line Lee has to die to make this plan work as payment for his actions.

Scene Brian POV

Some of the russians split off and are heading to other places. Mike and Brian are caught and have to fight. This is a straight up gun fight scene, maybe they use the handheld rail guns that were hinted at earlier. These are one shot? Powered

how? They can use these as bombs by turning off the field and making the ocntents expand. How do these work? It holds a railgun and powersource - battery pile? Has to be connected to reactor to charge - can only be off charge for a little bit or it explodes.

Mike takes brian to save house once they escape.

Scene TILLMANN POV

What is Tillmann doing this whole time? He is trying to get to Brian and dodge the russians. He is probably what the russians are after and they want to torture him to get the info. They know he is in charge and cant find Harold. There is one russian leader guy that has the time device. He uses it to blink around - its not strong enough to maintain for a long time. This is the device that they need to save Brian with later. We need Tillmann to break free somehow and kill the leader to steel the device - maybe he just traps the guy and runs awway. His first instinct will be to run after getting tech.

He runs into mike after he makes brian safe in safehouse. We should have these two join forces and work their way to Lee and Harold in time to see Lee die - they have no idea what Harold is doing or how he is killing people. Tillmann is shocked at the weaponization. Mike thinks he is stupid for being shocked.

At the end of the battle, Tillman wants to know finally what Harold's big thing is about - Harold says to let him catch his breath or some such. Imply the he explains it but we don't tell the reader yet.

#

Oct 2033

The government guys are back to witness a great demonstration of the dimensional effect. Harold begins by explaining what they are doing for the reader's benefit. They usually open new spatial frame in our three dimensions, but we should be able to open three dimensional frames into other dimensions. They are not sure what to expect but if is possible they need to explore this new tech. Mention of the Russians do not have this and that there was a great attack about it recently. Mention the loss of Dr Lee.

For the sake of more words, lets have the meeting take place outside the field and we need to escort the people through the entrance and into the field. They are all wowed by it and its a big dr who moment. Can we add some dr who puns?

More talking in the new area before the start of the test. They are making a frame inside a frame but it shouldn't matter.

Harold explain and take the lead on the experiment. There is some new guy to take Lee's place but there is also a lot of grunt scientists around doing red shirt stuff.

For this experiment it created a hyper dimensional frame how do we enter it? The hyper frame will not be compressing space, only shifting it into a different 3 dimensions. Since there is no dilation its save to cross over - ya whatever. Make it good like that. The view of the bubble is what? Well, light from us is hitting the surface then bending somehow into the new direction. It is unlikely that the light reflects back to us what light is reflecting back to us? Any random light that is in the space will exit towards us after a bend but we probably can understand the translation. It would probably be black with flashes of light like when your eyes are closed. Make some comments about how its not like stargate and other tropes. We would only see a flat circle (since the space is a sphere around the machine. Wires are still going in and the machine is not pulling on them. The sphere is in a dimension we cant see but it intersects with our place as a circle.

The first team with Tillman and Harold enter after probing the interior - is there a floor ? Air? We know air rushed in there and it stopped rushing in, so it is a bounded space. There was concerns that it would suck in all the air (of the planet?). There is a floor because the bounded space is still rooted around the machine. The machine was a pivot point that the area

rotated around so the location that it was at remains intact.

They enter and see the cut out section of the room around the machine appears to be floating in nothingness - how do they know the way out? Follow the wire. It is much brighter circle in here because a lot of light is on the other side , though the translation makes it look crazy to us.

Everyone is pretty excited and there is a lot of high fives etc. They all exit and plan to do a new test - the rotation with dilation. There is some discussion about what if the machine stops when the people are in there. No one is sure. They propose to do that test next at the cost of the machine if it goes wrong. Who will restart the machine? Will someone volunteer?

The second test starts and they set the rotate again with a large dilated space. Personal bubbles are made available to cross over to the space. The circle this time is a lot brighter with a strange light. Not sure what it means. People enter and see the room as it was before but dilated into a larger space as expected. There is light in there though. A strange light is coming from the distance much farther away than should be possible because the dilation wasnt that big. There is an adjoining floor or walkway touching the floor that belong to their experiment. It leads to another area that contains a table and chairs and the light sources - some flood lights. There is a

raised archway door that is closed.

People approach the table and don't sit. Some are poking around door. There is much discussion about what is going on. Harold might try to explain it but he can only guess really. People might try to map the space - anyhow everyone is busy kind of freaking out when the door opens.

Lets say for this experiment there is only Tillman, Harold, Govt guy and a guard. There is an exact number of chairs and raised throne or dais? Podium? There is probably a lit up symbol of the aliens culture also casting light.

An alien creature comes out of the door and negotiations begin.

PART IV

1995: Toronto, Canada

2039: Washington, USA

Rotation 1f3a: Segment 21.9, Sphere

CHAPTER FIVE

Chapter Title

TIMELINE C - son returns

- when B gets the device and can go home, he jumps to tell his father all about saving $\ensuremath{\mathtt{T}}$
 - future isnt the same since it is an extension of TL B.
- in this line no one has the tech yet and the future guys just invaded when it got dire
- he runs around trying to find dad, maybe he finds A or G as old person? or T?
- he find there is no firm, dad isnt researcher, cant do anything anymore here
 - has bad runins with bad guys

POV change

- A&G meet B again. wtf moment (entry point for A)

- ?
- B is taken by some bad guys, wrist gets broke?, time $\label{eq:back_power} \mbox{jumps back to TIMELINE A}$
 - A&G carry on they break into some main facility
 - ?
 - A&G jump to BG home in future
 - dyson sphere, future tech, plot discovery
 - A&G jump to 1986, TL D

PART V

1986: Chernobyl, Ukraine

CHAPTER SIX

Chapter Title

TIMELINE D - our world today

- A&G sabotage plant to stop nuke launch why, how does this fix it all?
 - end
 - report 2013, actual news report about theory.

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