

Chapter One

The Argos

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Synopsis

They are introduced to the Argos and are given a run down of each section and habitat

Their tug took just under fifteen minutes to travel from the space station out towards the moon. However, before it got close it swung abruptly right where a smaller object hung, strangely obscured.

"What is that?" Doc asked.

"I'm not sure." Raven said absently as she stared ahead, squinting as the object drew nearer. "Offhand, I'd say it looks like an asteroid, but it's irregularly shaped to the point of..." she trailed off in stunned disbelief.

Josh started laughing as what he saw through the tug's view port came into focus.

Ahead of them twisting on its axis floated an asteroid, but one fashioned from the nightmare of James Cameron or sci-fi producer. Around it was a crazy collection of pipes, cranes, boxes and control arms of an early orbital mining facility. Made ironically by the Chinese to supplement the incoming material from Mars, Josh knew they'd worked on over four large asteroids and a host of smaller ones.

"Is that?" Raven asked, trailing off.

"Yep, asteroid LV-426." Ryder said with some satisfaction. "The Chinese's biggest blunder. They roped her and put her in orbit just within the moon's orbital pathway. It's roughly one-fifth the size of the moon, but the payoff they expected never materialized. The mining corporation nearly lost the Chinese everything as they sunk billions of yen for a piddling return of a few hundred from the sale of the iron. So they abandoned her and moved on to other projects. They were supposed to hurl her back into deep space, in accordance with the treaty, but somehow they never quite got around to it, and so she hung here waiting for the International Courts to decide who has the ultimate responsibility of moving her out into deep space. While they were tied up, we sort of borrowed her."

"You used her as a blind." Josh cracked up.

"In a nutshell." Ryder said in satisfaction. "Argos is just

past her. We'll be there in a couple of minutes."

Everyone crowded forward to get their first view of the ship. Josh was jostled to the side of the cabin while Ryder and the Doc tried to make room for the women in the middle. But in front of them all hung James, the engineer.

Though they moved relatively fast past the asteroid, it still seemed almost interminable until they got past the horizon of the asteroid and could see on her far side.

Just a few miles from the surface in the shadow of the asteroid a long, obscure cylindrical shape hung motionless amongst the stars.

His first thought was that there appeared to be a long needle stuck halfway through a Ferris Wheel; the back or "eye" of the needle was huge cylinders, three of them, tightly wrapped onto the needle body like pontoons wrapped around a canoe. Halfway along the body of the craft eight arms spread outward like spokes of a bicycle wheel, buttressed with dozens of finer threads or columns, to the outer ring or wheel. Throughout the wheel were eight large pods, one at the end of each arm and attached via the ring. Two smaller arms without the ring were fore of the ring, with two sleek shapes attached to them.

"There she is." Captain Ryder murmured eagerly. "She gets more beautiful every time that I see her."

"I can see why." Josh told him quietly. "But what's that big round disk in the front? Gonna be kinda hard to see through

that."

"That's the electromagnet." Teresa replied. "To repel dust-sized particles out of our way."

"Why?" Doc asked.

"Well, at the speeds we'll be pushing, even dust can punch through the ship from stem to stern. The electro magnet will repel them, much like the bulbous projection at the bow of supertankers helps reduce drag, or a cowcatcher on the old trains you see in westerns."

Josh shook his head in wonder. "See, that's why I went into the Marines, it's easier to understand than this science gabble to me." He grinned. "But at least I don't have to worry about getting cut in half by dust!"

The others chuckled nervously, recognizing that this was untested technology: in theory it should protect them, but it was not a sure thing. And the consequences of failure were so horrifyingly total as to not bear thinking about.

"Strap in please," the tug pilot asked, turning to them. "We're beginning our approach."

Once the Tug pilot signaled they were set, they scrambled out of the chairs and up to the hatch. The tug's hatch was opened and over Ryder's shoulder Josh had the barest glimpse of a second hatch, similar to the tug's, that read ARGOS I.

Ryder pushed it open. Beyond lay a room with the same layout as the space shuttle, with shuttle chairs and a viewing port.

"It's hard to believe we're standing in the reusable landing craft." Josh said. "I feel almost like I'm back on the Discovery."

"Yeah, except the Discovery wasn't equipped with this high-tech stuff." Teresa said, pointing at the view screens in front of every chair. Everything was dark, the cabin still and quiet.

"Well, let's keep going." Josh shrugged. Across the way another airlock stood closed. Ryder floated ahead of them and entered a number into the pad in front of the heavy door. It popped open with a soft hiss and they easily moved it aside.

Everyone followed him through into a corridor very similar to the space station.

A man came floating down the companionway towards them. He wore a blue uniform and had a small pistol belted at his waist. He shined a light at them and scrutinized their faces once more before nodding and putting his light away.

"Welcome to the Argos." He said briskly. "I'm Commander Davies. Let me give you the nickel tour."

They followed him as he led the way up to a larger crossing space sealed off by another large door that read ARGOS.

"You're at the docking pylon just behind the fuel storage tanks." He said as they neared another airlock. "Through this

door is the central spine of the ship that runs all the way from the engine room to the bridge. The engine rooms are to the left, and we'll go there first as they're closer."

He glanced down.

"Go ahead and leave your bags here, we'll fetch them on the way back up."

Josh shrugged. Spotting a small hand grip built into the wall, he tied his leash to one and checked the knot. Behind him his footlockers floated, patiently waiting. He couldn't suppress a grin.

"If only I could turn gravity on and off like this when I'm helping my sisters move."

A smattering of laughter.

"Heh, I know that feeling." Jim laughed. "I've helped my ex move and two daughters, and my son. Some of that stuff is heavy. Like beds and stuff."

"Yeah. Anti-grav! We need to get that goin, man!"

"Maybe your scientist can figure it out." Davies suggested with a grin.

Raven laughed. "If I do, then I'll be sure to email home the patents and become rich. Still, who knows what we'll find out there? I'm super looking forward to it." She gave a rare smile.

Commander Davies grinned with them, and then gestured for them to follow.

He turned left and floated down a wide space bigger than the ISS, but still somehow smaller than Josh expected.

Josh guessed they'd gone maybe six hundred feet before they came to a hatch marked ENGINEERING.

"Here's the reactor compartment, and beyond this door is the antimatter drive." Davies stopped and pointed through a heavy door that wouldn't look out of place in Cheyenne Mountain. "This door leads to the main cone for the engines, where the exhaust is. Here in the engine room are the controls for the Positron fuel and the heat exchangers. There are the emergency backup controls in case something happens to the bridge and there are the habitat temperature and spin controls. They're set at Earth normal, by the way." He said, pointing at various consoles that seemed to hold thousands of switches and displays.

Josh sneaked a glance over at Walker, he looked like a kid at the candy shop. His eyes shone brightly as he pulled himself closer to look at the control board.

"Looks good." He announced a moment later. "I'll want to go over them a bit more thoroughly when the tour is over and we can get to work."

"Well, let's go ahead and turn back." Davies suggested. "We'll collect your bags and go to the habitat rings. I'll show you each your habitat and the communal ones, and then after that we'll go to the bridge. They're already spinning, so I'll show you the way you'll have to enter them."

They followed him down a long corridor through several airlocks until they came to a set of three doors, like the others all round. However, the inner doors seemed to be moving.

"We enter our code here and the doors open inward." Davies explained, demonstrating. Once the airlock doors were open a hum could be heard clearly.

"The hatches are now open. As you can see, they are independent of the hatchway: they are stationary relative to us and in line with the rest of the ship. The dizzying light you see just through the doorways are your individual habitats. Now, let's go inside."

He led the group inside the spinning hatchway, a rather tight fit as no one wanted to get close to the spinning walls.

Once inside Davies grabbed a free-floating keypad.

"It's given the polar opposite magnetic field to the walls, keeping the pad from ever contacting them. It's wirelessly connected to the control panel and will be easy for anyone getting in here to grab. Now, let me tell you how to orient yourself to your habitat pylon. He gestured to his shoes.

"Each of you has a pair of electro-magnetic boots. Once you are in here, I remind you only one person at a time is supposed to be in here, once you are in here point your feet to the spinning walls and tap the initiation sequence on your boots.

You know the drill, as the boots power up you'll slowly start to spin in the direction of the walls. Once the boots are at full power, you'll be standing on the wall, basically, and are then free to enter your hatch. I warn you, they feel a bit clunky and take some strength, but it is doable. Once inside the pylon you can turn off your boots. You'll start to feel the effects of gravity the further from the center you go, until you're at about one gravity at the habs."

"Cool." Josh heard John say, "But won't we have to shut the control system down while the ship is transiting past Mars?"

"Yep. No wireless or electronics are allowed. You'll have to coast "silent running" style for about nine hours, until you can turn on your stuff again and activate the drive. By then, even if the Chinese try anything, you'll be long outbound, though I wouldn't activate the communication's array until you're out of the system, and don't receive anything." Davies reminded sternly.

Josh nodded, he'd gotten the briefing. They didn't want to give the Chinese hackers the ability to send them careening off course or initiate a self-destruct sequence or whatever. Despite the secrecy surrounding the mission, everyone knew it would be too much to ask for the Chinese to be completely in the dark.

"But if you're asking if the grav will be distorted, we don't sweat that. After all, to slow something down you need a force acting against momentum, and out here there aren't any

forces to slow the spin."

"All right. And this clipboard has your room number assignments. Captain Ryder, you're number one, Lieutenant, you're number two, Sergeant Boon, three, Doctor, you're number four, Chief, you're five, and Miss Silver, you're number six. If each of you wants to inspect your rooms, you can store your gear and meet back up in thirty minutes to finish our tour?"

"I guess I'll go first." Captain Ryder said, lining his feet close to the spinning wall of lights. Davies pressed a button on the control pad.

"All right, all doors are now unlocked." He said as the lights took on a partially greenish cast to them.

Ryder nodded. Hitting a control on his glove, he slowly approached the spinning wall, nervously tapping the increase of power.

Josh knew that magnets were very short range, even the most powerful magnets in the world could only operate a handful of inches from metal. That meant they had to be perilously close to the spinning walls before the boots would have any effect. Too much power all at once, and Ryder would be yanked from a (relative to him) stationary position into one moving at thirty-two feet per second. Such a jolt could break bones if it weren't for the powered suits which had nano-carbon fiber support struts

built into them with the smallest available servos that better absorbed shock, but it was still a very unpleasant experience, and one that Josh didn't want to become a regular thing.

Ryder used Davies's helping hand to steady himself less than a handspan from the turning wall. As his boots slowly built up power he began to turn. Davies let go as Ryder started to go above his head, seemingly standing on the ceiling, then on the wall, then on the floor, before going back onto the wall, all while moving ever faster until he literally seemed to blur before Josh's eyes, like a racer on a motorcycle passing by on his lap. Suddenly he heard a thump and knew that Ryder had attached himself to the wall.

"There's a lot of space here." Davies commented, "more than you'll find anywhere else on the ship for just this reason: giving others a helping hand is essential for getting up to the habitats. It can be done solo, but it isn't as easy, or safe."

A blurred form whizzed past Josh's helmet, missing him by inches. He started when he realized he'd let his concentration lapse and allowed himself to drift to the wall. He cast about frantically for a way to prevent a collision, when he felt a hand reach out and grab his suit, steadying him. Looking back, he saw Teresa holding on and giving him a cocky grin.

"Steady there, cowboy." She laughed. "Don't want to give the captain an excuse to make you scrub the deck now, do we?"

Josh laughed sheepishly.

"Yes, ma'am." He said, letting himself be pulled closer to the center of the ring. A few minutes later Ryder's form disappeared behind a hatch that closed automatically behind him.

"All right, who's next?" Davies asked.

Teresa went next, followed by the Doc. Raven looked nervous and shook her head when Davies glanced at her: she would need an extra minute.

Josh shrugged and began to orient himself towards the wall. Davies supported him so he didn't get too close to the wall.

A thought hit his brain and he looked at Raven.

"Raven, grab my hands." He said.

"What?!" she gasped, looking at him with wide eyes.

"Trust me, please?" Josh asked.

Raven gulped while Davies looked on, interested.

She hesitantly reached out and took his hand, then the other.

"All right, now hold on." Josh said as, still holding her hand, he tapped his wrist computer to activate his magnet boots.

The computer beeped. Josh felt his feet grow strangely heavy. He began to spin; slowly at first but then faster and faster. At the same time Raven began to spin, moving with him, but stretching further out.

"Pull yourself down." Josh commanded.

Raven did as he said, pulling herself down athletically until her feet were almost ontop of his, tapping her own wrist

computer to spin up her boots.

Locking arms evenly apart, they rotated until Josh felt a sudden shock and slight jerk. He'd landed on the wall, or was it the floor?

Above him Commander Davies seemed to float above his head like a leaf on the wind, or maybe a spinning bird, twirling so fast nothing could be made out for certain.

"Whoa, trippy." He said quietly.

"I'll say." Raven replied to him. "Thanks." She said, pulling her hand away coolly. "I guess I have it now."

"No problem." Josh said with a grin. "Now, we just have to figure out our door."

Above him he saw Davies seeming to arrow towards the center door, anchored by the horizontal wire stretched through the center. A few minutes and he was gone.

Josh and Raven smiled at each other, laughed, and then went to open the doors.

"Agh! My bags!" Josh heard Raven curse.

Startled, he looked down at his belt where the leash for his luggage was. His four trunks were still in the far doorway where they'd been left when he started the maneuver, the long cord (recommended by Davies) on their retractable leashes letting them stay out of the way as everyone went about the difficult task of getting into the doors. Now he saw that somehow Raven's had come undone from her belt and was beginning

to float up and away, heading for the center of the tube.

Without thinking Josh pulled his luggage hard, jerking it out from the door and starting it towards him, which also forced the leash to circle as it struggled to follow him. Raven's leash, beginning to droop to the center, got caught in the line and fouled it up, tugging it like a stick caught in fishing line.

Raven's bags about tugged him off the wall, but Josh grabbed the inset handle for extra support as he muscled the luggage up to them.

"Thanks." Raven called as she neatly fielded her footlockers.

"No problem." Josh replied, catching his and setting it down on the floor. With a bit of the leash he fastened it to the inset handle while he started to untangle her line. When he was finished, he passed it over to her.

"Thanks again." She told him again.

"You're welcome." Josh nodded.

As she made her way along the ring carefully to her door, Josh unwrapped his leash from the handle and, with a short amount of play and feeling the centrifugal force from the spinning ring, he hurried to find his door before he suffered vertigo.

"Door three, Door three," he muttered under his breath, keeping his eyes focused on the decking near his feet.

A hatchway came up with a large 2 in red on it.

Well, I'm close at least. He thought.

He continued on until he found the third door. Bending down he studied the hatch. It was large and round, with two inset wheels and a viewing port in the upper third.

A green light blinked placidly beside the door, letting him know that it was still unlocked.

Turning the handle, he heard the seal crack and he pushed inside. Inside the tube things were a lot less vertigo-inducing, he thought. There was a simple rung and ladder system that led all the way up to what seemed another door very far above him. He heard hydraulics whine and looked down to see the door closing. He dropped his foot slightly and the safety sensor activated, stopping the door.

"Good, that works at least." He muttered to himself.

Pulling in his bags, he started to ascend. Beneath him the door resumed closing until it sealed tight.

The climb seemed never ending: the further he went up the heavier things seemed to become and he realized that he was beginning to deal with gravity again. He stopped at a point he judged to be halfway to the top.

"Now what?" he wondered, eyeballing the rest of the ladder. He couldn't carry the bags together all the way up, but if he let some of them go, they'd drop all the way back to the bottom. He could try cutting his leash into shorter strips to tie them

to the stair well and continue up that way, he supposed.

Don't they have a different way of getting stuff to the habitats? He wondered. After all, somebody had to move furniture and plants up there, and it could be certain that some items at least were too heavy or bulky for a couple of guys to crawl up..

His thoughts chopped off as he noticed what appeared to be a couple of tracks running parallel behind him along the shaft. Looking down, he thought he could make out what appeared to be a couple of prongs sticking out.

"I wonder." He said aloud.

Tying his belongings off, he simply pushed out and floated downward. His weight had been about the same as it would have been if he'd been on the moon, so he didn't pick up speed very fast.

In a couple of minutes, he reached the bottom, floating easily once more. Spinning himself, he saw now that the prongs could be unfolded, and a flexible shelf could be dropped onto them from its niche into the wall, creating a chain-powered lift all the way up.

So, that's how I get my luggage up. He shook his head at the simple ingenuity of it: more advanced forms of super magnets and electrodes could be tricky to replace if there was a problem. A simple gear and chain system like this could be fixed with relatively few parts in a short amount of time, easily made by the Argos machine shop.

Next to the unit was a small computer. Punching up the screen, he directed it to start going up. Letting himself be pulled along, he simply sat on the shelf as they went up the shaft until he stopped by his footlockers.

Hopping over to the rungs, he pushed the lockers over to the shelf and carefully strapped them down with the extra lengths of leash.

Satisfied, he pushed the button to send them up and climbed up after them.

As he neared the hatchway, he realized he was beginning to sweat: the workout had strengthened the further up he went thanks to the increased gravity.

At the top he felt as if he was climbing up the hatchway of a destroyer or aircraft carrier. Still, he was used to that kind of exercise, having performed duty on the Trump, America's largest aircraft carrier, nicknamed the Gasbag.

His luggage had continued up to the lip of the tube, Josh paused a moment to eye it. He realized that it would be a tight fit, but he felt he could squeeze past the foot lockers to open the door with little trouble.

Pulling himself further up the ladder, he soon got himself to a point where he could reach out and touch the control pad. A soft beep sounded and the hatchway opened.

Climbing all the way out, he turned back at the soft whine of the conveyor system. Somehow it had sensed the door opening

and finished lifting until the platform was level with the floor, letting him easily slide his footlockers off the elevator.

With the weight off, he folded the shelf back against the wall and closed the door.

Stretching, he took his first look around his completed home.

He'd been in the simulators of the habitat before, looking like a very fancy apartment block out of the twenty-twenties, but somehow it just hadn't prepared him for how amazing his apartment actually was.

The walls and ceilings were paneled in wood, something he'd half-thought impossible, despite the psycho-boys telling everyone that the wood paneling would be essential for mental health during the years in space.

"Cold metal does not a home make," they'd said over and over again.

I guess someone on the design team listened, he thought appreciatively as he ran his hands over the nearest wall.

Looking about, he took appreciative notice of what amounted to a "basement" of the pod: shelves lined the walls with neat, air-tight boxes neatly labeled with their contents, ranging from spare parts for the shower and Jacuzzi tub upstairs to extra

seeds for the myriad of plants in the aquaponics and gravel, food and dirt.

I'll have time to retrieve my stuff later, he thought as he pushed his footlockers against one of the boxes sitting on the floor in a clamp system made just for it.

Nearby a set of stairs spiraled upward to the next level. He hurried up them until he came to the largest level of the egg-shaped pod. Here was a strange combination of patio, first floor and jungle.

On the left side of the egg, plants had been cultivated into a healthy garden paradise, complete with its own small waterfall and pond not much bigger than an outdoor hot tub. Rows of bushes, flowers, shrubs and small trees grew in pots set up off the floor on long low tables, or rather aquariums. The aquariums were filled with a riot of fish swimming placidly about, scales flashing in the light like men in brightly-colored jackets at a stadium.

On the right-hand side Josh saw a small pit with electric heaters cunningly hidden behind a small dome of glass with projected a three-dimensional image of a blazing fire even while it cooked food. A small brick patio with chairs and loungers, even a small hammock, an open-air kitchen complete with large fridge, a huge pantry, stove, stools, an island with a sink and dishwasher, and a table set under cover to protect from the automatic rain-sprinklers set to water the garden with reclaimed

water.

Going to the right, Josh saw another stair made up of planks set into the wall and going up to the roof near the back of the egg. Just past the fridge but before the pantry, in the middle of the habitat a round wooden door sat with a shiny brass keypad set off to the side like a doorbell chime. But Josh saw that the panels were not the actual door itself, but a veneer over the top of heavy steel. Still, he appreciated the homey feel about them.

"All right, let's check out the loft." He announced to no one in particular.

He quickly ascended the planks up the fifteen feet to the upper room.

Here he saw privacy screens artfully arranged to allow the feeling of privacy while at the same time letting the area feel open and spacious. At the head of the pod was a large, comfortable looking bed sitting just off the ground. Two tracks let the bed be lifted up into the ceiling to give greater room. On one side was a bathroom with toilet, shower cube, and a large Jacuzzi tub big enough for two to sit comfortably in. A pedestal sink gleamed under a medicine cabinet with panoramic mirror, beside an oak cabinet that held four or five towels, all in shrink wrap, shampoo bottles, conditioner, soap and cleaning supplies.

On the other side there was a strange piece of furniture.

To the untrained eye it looked like an enormous cabinet eight feet high. The front seemed made into dozens of boxes as if someone had gone crazy with cardboard shipping packages, seeing how many they could stack on top of the other until it got too tall. In the cubbies were his pride and joy: his personal library and camera gear.

"Sweet." He said, smiling as he eyed the well-worn bindings sitting there. An overhang just above turned out to be a drop-down screen for the theatre system.

"Just like home." He said approvingly.

On the side was a door that hid a closet space for clothes, jackets, and shoes. Rungs on the side led up to a small nook/hideaway with wrap-around screens projecting whatever countryside image or city image he'd like.

Pictures hung on the walls, mostly landscapes of where'd he been or interesting people he'd met. Yet in the middle hung a large portrait of his family, taken before the accident, gleaming in its black-walnut frame. It had cost him a year's pay on that one, but he'd gotten it perfect and that was what mattered to him.

Checking his watch, he realized with a start that he'd eaten up most of his time. He glanced around at the drop-down table big enough for four, a small microwave and kitchenette for the upstairs, and a living room with a glass wraparound fireplace, comfy armchairs, and coffee table.

Hurrying back downstairs, he went to the basement and opened the hatch to the central portion of the ship.

He thought about simply dropping down the shaft to get to the bottom quicker, but he quickly decided against that; nothing would stop him before he splatted the bottom like a motorcycle rider against the median.

He elected to climb down, letting his weight reduce until it was less than what was on the moon before he let go and slowly fell down, holding onto the rail to slow himself like last time until he touched down on the door.

Getting out was just as interesting as getting into the pylon: he tapped his private code into the hatch, and it turned green. If it had turned red, that meant someone had gotten ahead of him and then he had to wait until it turned green.

Opening the hatch, he stepped out until he stood on the revolving wall. Dialing down his magnetic boots, he gently pushed off until he caught up to the wire in the middle of the corridor, grasping it with his armored glove. Friction slowed his spin until, relative to the wire, he'd come to a stop while around him the walls spun ceaselessly, matching his stomach.

"Ugh, this has got to be the worst ride ever." He muttered.

He wondered how he would have to get out during an emergency.

Pulling himself along the wire he opened the stationary door that led to the front of the ship and exited, shutting the

door firmly behind.

"Okay, if you'll follow me, I'll escort you to the bridge now." Davies said, opening the far doors for them.

They followed him out one at a time and closed the door behind them.

Down another long tunnel they came to a door marked BRIDGE. Entering, Josh saw a deck extending in front of him to a large viewport. A ladder next to him went up and down to the other decks. From his briefings, Josh knew that there was a total of five decks in the command module. The top deck was the actual bridge, set high and with expansive views of the Earth. He wondered how long it would be before it saw another Earth-like planet: though they were heading to a star-system astronomers swore up and down had planets, Josh still lived by the old maxim: theory is great but often practice is completely different. He hoped Bernard's Star had planets, but if not they had a Positronic Collector on board to generate more fuel on the way to search out further stars. A real Trailblazer mission.

The second deck held a fully-equipped medical center with supplies. There Doc Sam could do anything from heal scratches and doctor minor colds to major surgery, all in Zero-G. It sounded difficult, but just in case the Doc's module held a smaller surgery and med center there with gravity.

The third deck ran the full length of the ship and served primarily as a passage for the crew. There were also extra supplies stored wherever space could be found, as well as landing equipment and rovers for ground exploration.

The fourth deck stored spare parts for nearly everything on the ship, from dirt, to microwaves, to rover and ship components. There was even a small CNC machine shop there to fabricate parts they didn't have with some stock.

The fifth deck held stuff in case of disaster: supplies for living on an alien planet and setting up long-range communications with Earth. Mining equipment for small asteroids for minerals. Josh could run that equipment. All of it made small and tough.

They explored all of them and then Davies ended the tour back on the third deck.

"Good luck Trailblazers." He said. "I kinda wish I was going with you."

He stuck out his hand. One by one they took it solemnly.

Then Josh followed him back out to the tug pylon and sealed the door behind him while everyone strapped in for the wild ride of a lifetime.

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