

# STAR TREK™

## S.C.E.

#38

### ORPHANS



Kevin Killiany

S.C.E. concept by John J. Ordover and Keith R.A. DeCandido

# Other eBooks in the Star Trek™:

---

## Starfleet Corps of Engineers series from Pocket Books:

- #1:*The Belly of the Beast* by Dean Wesley Smith
- #2:*Fatal Error* by Keith R.A. DeCandido
- #3:*Hard Crash* by Christie Golden
- #4:*Interphase* Book 1 by Dayton Ward & Kevin Dilmore
- #5:*Interphase* Book 2 by Dayton Ward & Kevin Dilmore
- #6:*Cold Fusion* by Keith R.A. DeCandido
- #7:*Invincible* Book 1 by David Mack & Keith R.A. DeCandido
- #8:*Invincible* Book 2 by David Mack & Keith R.A. DeCandido
- #9:*The Riddled Post* by Aaron Rosenberg
- #10:*Gateways* Epilogue:*Here There Be Monsters* by Keith R.A. DeCandido
- #11:*Ambush* by Dave Galanter & Greg Brodeur
- #12:*Some Assembly Required* by Scott Ciencin & Dan Jolley
- #13:*No Surrender* by Jeff Mariotte
- #14:*Caveat Emptor* by Ian Edginton & Mike Collins
- #15:*Past Life* by Robert Greenberger
- #16:*Oaths* by Glenn Hauman
- #17:*Foundations* Book 1 by Dayton Ward & Kevin Dilmore
- #18:*Foundations* Book 2 by Dayton Ward & Kevin Dilmore
- #19:*Foundations* Book 3 by Dayton Ward & Kevin Dilmore
- #20:*Enigma Ship* by J. Steven York & Christina F. York
- #21:*War Stories* Book 1 by Keith R.A. DeCandido
- #22:*War Stories* Book 2 by Keith R.A. DeCandido
- #23:*Wildfire* Book 1 by David Mack

#24:*Wildfire* Book 2 by David Mack

---

#25:*Home Fires* by Dayton Ward & Kevin Dilmore

#26:*Age of Unreason* by Scott Ciencin

#27:*Balance of Nature* by Heather Jarman

#28:*Breakdowns* by Keith R.A. DeCandido

#29:*Aftermath* by Christopher L. Bennett

#30:*Ishtar Rising* Book 1 by Michael A. Martin & Andy Mangels

#31:*Ishtar Rising* Book 2 by Michael A. Martin & Andy Mangels

#32:*Buying Time* by Robert Greenberger

#33:*Collective Hindsight* Book 1 by Aaron Rosenberg

#34:*Collective Hindsight* Book 2 by Aaron Rosenberg

#35:*The Demon* Book 1 by Loren L. Coleman & Randall N. Bills

#36:*The Demon* Book 2 by Loren L. Coleman & Randall N. Bills

#37:*Ring Around the Sky* by Allyn Gibson

#38:*Orphans* by Kevin Killiany

**COMING SOON:**

#39:*Grand Designs* by Dayton Ward & Kevin Dilmore

#40:*Failsafe* by David Mack

---

STAR TREK™  
S.C.E.  
#38

ORPHANS

Kevin Killiany

  
POCKET BOOKS  
New York London Toronto Sydney

This book is a work of fiction. Names, characters, places and incidents are products of the author's imagination or are used fictitiously. Any resemblance to actual events or locales or persons, living or dead, is entirely coincidental.

An *Original* Publication of POCKET BOOKS

---



POCKET BOOKS, a division of Simon & Schuster, Inc.  
1230 Avenue of the Americas, New York, NY 10020

Copyright © 2004 by Paramount Pictures. All Rights Reserved.



STAR TREK is a Registered Trademark of  
Paramount Pictures.

This book is published by Pocket Books, a division of  
Simon & Schuster, Inc., under exclusive license from  
Paramount Pictures.

All rights reserved, including the right to reproduce  
this book or portions thereof in any form whatsoever.  
For information address Pocket Books, 1230 Avenue  
of the Americas, New York, NY 10020

ISBN: 0-7434-8085-6

POCKET and colophon are registered trademarks of Simon & Schuster, Inc.

Visit us on the World Wide Web:

<http://www.SimonSays.com/s>

<http://www.startrek.com>

# Acknowledgments

---

The occasion of my first eBook demands that I acknowledge individually all of the people who encouraged me and helped me through my long years of development as I figured out just what being a writer entailed. I can't, of course; there are far too many of you.

I do want to thank the entire community of *Star Trek* writers (if I start listing names, I won't be able to stop). This is the most welcoming, accessible, and genuinely helpful group of professionals I have ever met.

Honorable mention also goes to my three children, Alethea, Anson, and Daya, for their patience and for accepting that when Dad is staring vacuously into space he is "working."

Finally, and most important, I want to publicly thank the one person who believed in me even when I didn't believe in myself, my partner in life, my other half, and the person to whom this book is dedicated: my wife, Valerie.

# CHAPTER

---

## Eve of the Quest

Naiar stroked Striver's arching neck, following the rough pull of the currycomb with a soothing palm. His mount's blue-black coat already glistened in the source light streaming through the stable doorway, but youth and beast enjoyed the ritual.

"Tomorrow," he murmured, Striver's ear twitching at the sound of his voice. "Tomorrow, the quest."

The riderbeast seemed unimpressed, but the creatures were not known for their sense of adventure. Naiar set the grooming tools on the shelf and checked the level of the feed trough. With a final pat for his mount, he let himself out of the stall.

In the stable yard he paused, his eyes following the curve of the world up and up until it was lost in the haze of the sky. Some mornings, just as the source breached the Dawn Mountains, Naiar knew that fabled lands above the sky could be seen, just for a moment, in the morning glow.

Until three fours of days ago, he had thought his destiny lay there, above the sky. That had been the goal of his proving quest.

But then the gnomes had appeared, stumbling out of the mountains near a fallen hollow. Strange creatures, shaped much like People, but short and hairless, or mostly hairless. Strangest had been their faces, with eyes above the nose, squeezed down toward the bottoms of their heads.

They had stayed awhile in his father's House, though they ate nothing they had not brought with them and drank only water, and that after they had added strange herbs of their own. The Doctor believed the gnomes feared some binding curse that would hold them to the land of the People, but Naiar, who had nearly choked when he tried a bite of their food, suspected the gnomes simply did not eat as People did.

The gnomes had said, in the days before they lost their speech, that they were seeking access, though to what was not clear. They had been fascinated by the stories of the hollows of the Builders and made much of the mirrors purchased from the Barony of Atwaan. The two who might have been female had listened for hours as Nodoc recounted the histories of mad giants and children who had wandered from the depths of the world generations before.

When they could no longer speak as People—their powers, the Doctors said, fading in this world—the gnomes had left the Tetrarchy and the borders of the known world. They had followed the direction of the source—duskward, away from the mountains—seeking the origins of the old stories. His father had given them writs of safe passage, though how far that would carry them in the wild was uncertain. Not every House and Hold loved the Tetrarchy when the Tetrarch's armsmen were not present. Most thought the gnomes to be mad, but Naiar knew now his destiny was to follow them, to learn the secret of this access.



The lands above the sky had always been there. They would be there still for him to explore when he returned from his proving quest. Though he was heir in his brother's stead, it would be many four of seasons before his training in governance became intense. Time enough to pursue his dreams.

Turning away from the main compound, he made his way to the clan's birthing pool, sheltered in a hollow far from casual eyes. Ignoring the inviting scent of the water, he circled the pool to the memorial field beyond. The stones of the stillborn were unmarked, but he had long ago decided which were those of his clutch brothers.

"Tomorrow I go on my quest," he told the three stones slightly apart from the others. "I know it is but a shadow of the great Journey the People are on. Less than a shadow of your journey. But..."

He paused, not sure what to add to that. After a moment's thought, he pulled a leather pouch from his belt. Transferring his flint and tinder to his tool pouch, he scooped a thick handful of soil from the center of the triangle of memorial stones and filled his fire pouch.

"I'll bring it back," he said, "and you'll see where I've been."

The source was nearing the end of its journey. Soon darkness would come. Already the hollow of the birthing pool was deep in shadow and a chill wind, working its way among the rocks, ruffled the sleek hair of his neck and arms.

"Tomorrow," Naiar promised again, and turned toward the house.

The yard in front of the great house was abustle with grooms and servants unloading the packbeasts of a modest caravan. Naiar recognized the sigil of Tolan, the second house of the Tetrarchy, and quickened his step. To see Miura before his proving quest...

"Ho!" The shout brought him up short at the threshold.

"Uncle!"

"No rush, son." The older man slapped his rounded shoulder, propelling him the rest of the way into the hall. "She's not with me this night."

Naiar lidded his eyes for a moment, embarrassed he'd been so transparent. Uncle Tolan laughed and he shed his heavy coat.

"No coat, boy?" he asked as a servant took his.

"You'll catch your death yet."

Naiar shrugged; the remark was not worth comment. Everyone knew the young, those who survived their birth and avoided the withering, did not feel the cold the older generations complained so much about. Still, he never met a relative who did not comment on his light jerkin and vest within a minute of their greeting. He hoped he'd be less predictable in his old age.

Torches lit the hall, though the source was not yet gone. The traditional quiet evening with close family before the quest was being replaced with a hasty feast in honor of his uncle's visit. Naiar

minded not in the least; he greatly preferred hearing news of other households to the lecture on the House's history and their expectations of him as heir that he'd been dreading.

Miura across the table, her down golden in the torchlight, would have made the evening perfect.

At the moment the feast table was still being assembled, trestles and planks added to the everyday sideboard. Naiar suspected the kitchen was frantically adding fruit dishes and quickbreads to the modest feast prepared for the family of the House. Uncle Tolan would not care, knowing how close to dinner he'd arrived, but Cook would never let it get back to Tolan House that Nazent House had not excelled at a moment's notice.

Two servants entered from the family door, bearing a padded chair between them.

"Nodoc!" Uncle Tolan cried out with the same joy he'd had at the sight of Naiar. He towered over the tiny gray form of Naiar's older brother nestled in the chair, but seemed unaware that anything was amiss.

The servants lowered the chair, and Uncle Tolan dropped casually to one knee to be eye to eye with his cousin's oldest son.

"You've tales to tell, I'll wager," he said. "Consorting with gnomes, from what I hear."

"We all consorted," Nodoc countered cheerfully.

"Many spent as much time with them as I."

"But none have your keen eye and wit. I'll have the whole story from you before the evening's out. And a tale of my own to trade," Tolan added, glancing up at Naiar to include him in this last.

"What sort of tale?" Nodoc asked. "We've time before dinner."

Tolan cast his eye about the hall, gauging the state of readiness, and nodded. Naiar hooked a basket with his foot, overturning it to make a stool. The stream of servants flowed around their island without comment.

"A beast, a magical beast, by all accounts," Tolan said, "has been seen in the foothills of the Dawns."

"Near the Fallen Hollow?" Naiar guessed.

"At first," their uncle said, "though it's been seen elsewhere since, following the path of the source."

"How is it magical?" Nodoc demanded.

"It is very like an insect, but blue as an ice flower, with only eight legs."

"A blue insect is new, not magical," Nodoc said.

Naiar nodded, content to leave the conversation in the hands of his learned brother. The insect hardly a beast, did not sound too remarkable to him.

---

“Even an insect that cries out in a voice like ringing bells?” Tolan asked.

“That we’ve never seen an insect with a voice does not mean all insects are silent,” Nodoc answered.

“And missing a four of legs could merely mean an injury.”

“Did I mention,” Tolan asked innocently, “that the beast is the size of a packbeast colt?”

“You did not!” accused Naiar.

“When you say it cried out,” Nodoc asked, his mind leaping to another trail, “did it merely give voice or did it attempt to speak?”

“On that our witnesses are divided,” Tolan admitted. “But—”

“Tolan!” Nazent’s voice cut through the industrious murmur of the hall. “Where are you?”

“Here.” Tolan rose. “The slackness of my host forced his sons to hold court in his stead.”

“Ha. Then you are in good hands,” Nazent said. “I can retire in peace.”

“Not before we eat!”

The cousins linked arms, making their way toward the head table, which was arrayed with an overabundance of food. No doubt the Householder had delayed his entrance to give Cook time to present this feast. Thus is the loyalty of servants earned.

As Nodoc, borne in his chair, followed, Naiar made a business of righting the basket and returning to its place.

A magical beast, perhaps following the gnomes? If friend, a valuable ally. If foe, a worthy opponent. By the time he reached the sideboard, the nature of Naiar’s proving quest had undergone another change.

# CHAPTER

---

## Four fours of days before the Quest

The *da Vinci* was spiraling madly.

Centered on the main viewer was a dark blue-gray cylinder, nearly invisible to the naked eye against the blackness of space. With nothing to provide scale, its size was impossible to determine, but there was an unmistakable sense of mass. The thing was huge. Beyond it the field of stars was a sheet of diagonal streaks. At irregular intervals the image of the cylinder would jerk minutely and the streaking stars changed angle as the *da Vinci* altered orbit.

Captain David Gold sat in his command chair and tried to convince his inner ear that the spinning sensation was all in his imagination. By trial and error he had determined this was most successful when he remained seated.

“Sensors are still unable to penetrate beyond the outer levels,” Lieutenant Commander Mor glas Tev announced from one of the aft science stations. “We’ll have to get closer.”

Gold could tell from the set of his shoulders that Songmin Wong did not like the idea. He didn’t blame the conn officer; he knew enough about piloting to appreciate the concentration needed to hold the *da Vinci* in a circle less than a light-second in diameter at warp one.

“What will that gain us?” he asked his second officer.

The Tellarite stifled an impatient sigh. Gold doubted Tev would ever lose his arrogance—he’d earned it honestly—but it was good to see him learning to curb expressing it.

“It will not be possible to determine that until we have gotten closer,” Tev replied. “But based on our last course adjustment, sensor efficacy should increase by four percent.”

“Wong?”

“We’re near tolerances now,” the young lieutenant replied, leaving the implications hanging.

“You recommend?”

“Pulling out to sixty-three thousand kilometers,” Wong answered promptly. He’d clearly been giving the matter a lot of thought while fighting to hold the *da Vinci* in place.

“Faugh,” said Tev. “That’s no better than leapfrogging.”

Gold sat for a moment, considering the four percent. They needed more information; he wanted to have at least the outline of a plan in hand before the others arrived. But it would do him no good if he damaged his ship getting it.

Perversely, his left hand itched. It had been doing that when he was frustrated ever since he got the biosynthetic replacement after Galvan VI. Knowing it was psychosomatic, and knowing it was a common experience with prosthetics, did nothing to make the sensation go away.

“Your choice,” he said to Tev.

“Continuous scans offer the best chance of penetration.”

Gold nodded. “Wong, take us out to sixty-three thousand kilometers and continue spiral.” He stood up, resisting the urge to scratch his prosthetic hand as he made his way to the turbolift. “I think everyone’s had a chance to chew on the data. Haznedl, notify the team we’ll be meeting in ten minutes.”

“Captain!”

The urgency in the tactical officer’s voice brought Gold up short.

“What is it, Shabalala?”

“There’s a Klingon”—he paused for a moment, evidently rechecking readings on his board—“warship approaching at warp five. It has not responded to hails.”

“Better make that fifteen minutes, Haznedl,” Gold said as he returned to his chair. “And call Gomez to the bridge. It seems the other half of our team has arrived ahead of schedule.”

“Faugh,” repeated Tev.

“Let’s not make them try to match orbits, Wong,” Gold said. He was aware of the turbolift opening and Commander Sonya Gomez, the ship’s first officer and leader of the S.C.E. team, taking up station behind him. “Jump five light-minutes ahead of the colony vessel and drop from warp.”

On the viewscreen the spinning star field executed a jarring pinwheel and righted itself. For a moment the streaks of starlight radiated in comfortably straight lines from the center of the screen as the *da Vinci* leapt ninety million kilometers in a matter of seconds. Then, for the first time in what seemed like months to Gold, the stars became steady points of distant light. They were in normal space.

“Let’s see who the Klingon Empire has sent us, Shabalala,” Gold said.

The image on the viewscreen shifted, and for a moment the bridge was silent as the crew regarded the ungainly shape bearing down upon them.

“Haznedl,” Gold said at last, “is there anything in our database about pregnant D-7s?”

The operations officer tore her eyes from the bizarre ship and rapidly tapped her console.

“Nothing fits that specific configuration, sir,” she reported at last. “But that does seem to be a modified D-7 attack cruiser.”

“Shabalala?”

---

“Sensors indicate the ship is constructed from components of various ages, evidently from other vessels.” The tactical officer paused, considering his readings.

“The flattened oblate spheroid under the engineering section is a troop transport module. Those were never used on attack vessels.”

Gomez frowned. “That looks a lot stubbier than the D-7s I remember.”

“You remember D-7s?” Gold asked. “I would have thought they were at least a century before your time.”

“From the Academy,” she said. “History of ship design.”

“Ah.”

“Obviously, the mass of the troop transport module alters the dynamics of their warp field,” Tev said impatiently. “They shortened the central pylon by twenty percent to compensate.”

The moment Tev said it, Gold saw it was true. The central pylon, what he thought of as the “neck” of the ancient Klingon cruiser, was indeed shorter than it should have been. Combined with the “flattened oblate spheroid”—which looked to him like nothing so much as a huge loaf of pumpernickel—it created a silhouette unlike any ship he’d ever seen. No wonder the database had not been able to identify the vessel; he was impressed it had recognized it as Klingon at all.

“Any response to hails, Shabalala?”

“No, sir, they’re—”

“What the hell?” Wong’s exclamation cut him off.

On screen, the Klingon cruiser swung about in a leisurely arc and took up position off the huge cylinder’s beam. Wong brought up an inset tactical display that showed the Klingon’s warp field in place as the pair passed the *da Vinci*.

“Refresh my memory, Wong,” Gold said. “What is the minimum speed of a ship at warp?”

“Lightspeed, sir.”

“And they are at...?”

The tactical inset flickered as Wong reset the sensors. They flickered again.

“Point seven six light,” he said at last.

“Theories, Tev?”

“They are violating several physical laws,” the Tellarite growled. “And ignoring fundamental war

mechanics.”

---

“So noted,” Gold acknowledged. “Haznedl, pipe this information down to engineering. Tev, I want you and Conlon working on figuring out how they do this.”

“Why?”

“Because these are Klingons,” Gold said. “Unless we can prove we’re at least their equals, they’re going to ignore us.”

“Why not let them?” Tev demanded. “The object is heading into Klingon space, that’s why they’re here. Why not leave and let them handle the situation?”

Gold tapped his fingers lightly on the arm of his command chair as he watched the mismatched pair of ships on the screen. “Because I’m not altogether sure I’d like the Klingon solution to the problem of a giant colony vessel on a collision course with Qo’noS.”



# CHAPTER

---

By now, Nancy Conlon had steeled herself against Tev's appearance in her engine room. Within the first few weeks of his arrival on the *da Vinci*, she came to realize that he would never recognize that he was in *her* domain. From Tev, she would get no courtesy, nor would she even be treated as a colleague. True, he had more experience and a higher rank, but it was still *her* engine room. Tev's predecessor, Kieran Duffy, had always treated Conlon's predecessor, Jil Barnak, with due deference whenever he came down here, and Barnak as a result gave Duffy a fair amount of latitude in the engine room. Tev, though, acted as if Conlon owed him that latitude.

When she stood to greet him, therefore, she expressed no surprise when he came around her desk and took her chair without comment as though she'd relinquished her position. He briskly cleared his screens without glancing at them, not noticing the relevant data she'd organized nor her preliminary sketches, and without a word of greeting, launched into a summation of the problems facing them as though she were a classroom full of freshmen.

"What the Klingons appear to be doing is impossible," he pronounced, busily adjusting her screens and pulling up some of the same data he'd just removed.

"Therefore what they are doing is not what they appear to be doing."

Conlon listened with half an ear as he ran through a list of warp and physical principles which precluded a stable warp field at sublight velocities. Moving to an auxiliary panel, she called up an inventory of ship's stores. It took her a matter of moments to locate the components she wanted and to flag them. With a few quick taps, she routed her list and orders that they be brought to engineering ASAP.

"What makes the Klingon feat look impossible is the limitations of human perception," Tev's lecture broke in on her consideration of necessary parts they didn't have. "And instrumentation that assumes the observer is human."

He was focused on her desktop display and she realized he was drafting a diagram as he spoke. Though she couldn't see the image, his gestures were quick and sure. Despite herself she was impressed with his ability to multitask.

"Human senses perceive any event which takes less than a fifteenth of a second as instantaneous," he explained. "Tellarites can discern events as brief as one twenty-fourth of a second."

*And Klingons a thirtieth of a second, Conlon added mentally, and Vulcans something just under forty-third of a second.*

"As soon as I saw real-time data—numbers, not images—I realized what was happening." Tev spun her desktop display around so she could see his diagram.

She was not surprised to see it was very similar to her own. There was no getting around the fact that for all his pomposity the Tellarite knew what he was doing.

“Not bad,” she said. “But it’s clear you’re not a ship’s engineer.”

---

“Oh?”

If she had been less sure of herself, the frozen tone of Tev’s single syllable would have stopped her.

“You’ve got the theory,” she said, tapping contacts on the auxiliary board, “but your design assumes unlimited matériel and ideal efficiency.”

With a grin, she rotated her screen, showing him the schematics of her own design.

“We have components for three complete assemblies, which my people are already working on,” she exaggerated slightly. “If you have some ideas on what we can substitute here and here”—corresponding points highlighted—“we can have a fourth.”

Too late she kicked herself for not having a visual recorder going. Tev’s stupefied expression was priceless.

# CHAPTER

---

Bart Faulwell was literally two steps from the observation lounge when the meeting was announced. So far there was no need for a linguistics or cryptography specialist on this mission and he'd been prowling, pen and paper in hand, too restless to sit as he worked on his latest letter to Anthony. The process had become more protracted over the years, which suited him fine. The longer he took composing the letter by hand the old-fashioned way, then recording the actual subspace message, the longer he could hold on to the feeling of spending time together.

He considered a quick dash to drop the pen and paper off at his cabin, but it didn't seem worth the trip. Besides, he couldn't remember the last time he'd been the first one to a staff briefing.

He expected Tev to be next, but it was in fact Soloman. The Bynar favored him with a preoccupied nod before settling down and focusing on a padd of his own.

Domenica Corsi and Fabian Stevens arrived together, and Faulwell was startled by a sudden stinging of his eyes at the sight of them separating at the door. It took him a moment to realize it had reminded him of Kieran Duffy and Sonya Gomez holding hands under the table in staff meetings—one of their near-comic efforts to keep their romance under wraps.

He shared the incident and his feelings with Anthony, knowing his partner would understand. When he looked up from his writing, he was surprised to see everyone but Tev had arrived; Pattie was just sliding onto her specially made chair. Across from him, Elizabeth Lense met his startled gape with a smile.

Captain Gold opened the meeting. "All right, people, we've had two hours, but now the other team has arrived. What have we got to show for our head start?"

"A multigenerational deep space vessel of classic cylindrical design," Gomez recited briskly. "Propelled by a very basic ion drive. Nuclear rockets rotated the ship, the angular acceleration providing ersatz internal gravity. Right now neither is working; it's coasting and spinning on momentum."

"'Coasting' at two hundred and twenty-eight thousand kilometers a second," Stevens said. "With that technology, attaining point seven six lightspeed required centuries of acceleration."

Faulwell knew that maddening velocity, over three times full impulse but well short of lightspeed, had created a navigational nightmare for the *da Vinci*. They had spent an hour repeatedly jumping ahead of the colony ship at warp and scanning it as it passed. Then for the last hour and a half they had been corkscrewing insanely around the axis of its course at warp one to stay abreast.

"Also considering the technology," Pattie chimed in, literally, "at least a century went into its construction as well." She touched a few controls. A schematic diagram of a circle comprising several interlocking rings appeared on the main screen. As she spoke, several sections of the diagram lit up. "The outer hull comprises several hundred meters of fused nickel-iron, probably an aggregate of asteroid material. This is reinforced by a gridwork of dense alloy similar to duranium but with an ore

spectral signature.” A molecular model, with a few gaps, and a matching spectral band appeared below the schematic. “The decks we can scan below the outer hull”—Pattie interrupted herself with a crystalline sound of amusement—“or, from their perspective, *above* the outer hull, are of similar construction and appear to be filled with myriad large, inert items. One would guess long-term storage. The weight distribution problems in spinning something this size are enormous.” The schematic rotated and elongated, becoming a side view of the huge cylinder. Pattie continued to tap controls as she spoke, an apparently random pattern of bright green dots spread across the image. “The builders dealt with it by installing over one thousand nuclear rockets to govern rotation. They seem to have simply been mounted on the surface of the completed ship. Notice spacing is not uniform; the placement reflects internal mass.”

Pattie paused and on the screen green dots began to go dark. “At least five hundred years ago the system began to fail.” She looked to Gold. “Commander Tev was investigating how and why.”

“He’s working with Conlon on something,” Gold said. “Is his input essential right now?”

“No,” Pattie said. “Just curious.”

She turned back to the panel and tapped a few more commands. What Faulwell took to be stress force calculations appeared along the top and bottom of the screen. Lines connected the equations to points along the length of the ship that glowed an ominous purple.

“Without the balancing thrust of the rotational rockets, the entire system is unstable. At this scale something as slight as a point-zero-one difference in density between sections could cause dangerous torque shears.” Pattie paused for a moment, her good humor of a moment ago gone. “Without more complete structural data I cannot say precisely when, but sometime in the next year at most....”

The numbers bordering the image changed as the purple points became a network of jagged lines. With surprising speed the image of the ship broke apart.

No one spoke for a moment.

“What makes that important right now is the interior,” Gomez said at last. “Based on what we could scan through the ends of the cylinder during our initial leapfrogging, the inner surface is designed to emulate a Class-M planet.”

“The whole thing can’t be full of air?” Faulwell asked.

“No,” Gomez assured him. “Angular acceleration keeps the atmosphere within a kilometer or so of the surface.”

“A kilometer or so,” he echoed. “Exactly how big is this thing?”

“Computer models indicate there are just under twenty-six hundred square kilometers of planetary surface in there.”

Faulwell’s mind boggled slightly at the figure.

“Inhabited?” Gold asked.

“We *think* so.” Gomez nodded to Lense.

---

“Analyzing the life readings, I’ve definitely identified half a dozen animals analogous to Terra mammals,” the chief medical officer said. “Their groupings and proximity would indicate some are domesticated animals and others are the domesticators, though that’s conjecture.”

“Conjecture you think is accurate,” Gold said.

Lense nodded, then glanced around the table at the others. “Extrapolating from what we saw through the bow, there are anywhere from thirty to sixty thousand colonists aboard that ship.”

# CHAPTER

---



- [\*\*Thinking Kids' Math, Grade 1 pdf, azw \(kindle\)\*\*](#)
- [\*\*The Resistance: The French Fight Against the Nazis pdf, azw \(kindle\)\*\*](#)
- [The Lucy Variations pdf, azw \(kindle\)](#)
- [download The Deadly Game](#)
- [\*\*A Civil Campaign \(Vorkosigan Saga, Book 12\) for free\*\*](#)
- [\*read online The Essential Keynes \(Penguin Classics\)\*](#)
  
- <http://www.gateaerospaceforum.com/?library/Thinking-Kids--Math--Grade-1.pdf>
- <http://unpluggedtv.com/lib/The-Brooklyn-Follies.pdf>
- <http://diy-chirol.com/lib/Death-and-Honor--Honor-Bound--Book-4-.pdf>
- <http://omarnajmi.com/library/Battle-Hymn-of-the-Tiger-Mother.pdf>
- <http://honareavalmusic.com/?books/Point-of-Betrayal.pdf>
- <http://redbuffalodesign.com/ebooks/The-Essential-Keynes--Penguin-Classics-.pdf>