STAR FLEET BATTLES

CAPTAIN'S LOG #13

THE BEST OF NEXUS

CROSSROADS OF THE GALAXY

> This is a special issue of Captain's Log comprising the best of the material published in the discontinued magazine *NEXUS*. All of the material has been completely rewritten and updated. Captain's Log #14 will appear in January 94.

From 1982 through 1988, *Star Fleet Battles* players could look forward to a gaming magazine called *NEXUS,* a product of the 2nd Administration of Task Force Games.

NEXUS was designed to be a "house organ," telling people about the games produced by TFG. From the beginning, and for its entire life, it was the *Star Fleet Battles* fans who kept *NEXUS* alive, buying it for the small SFB section within its pages.

NEXUS was never intended to make a profit, and its final year (when the best issues appeared with huge 16-page SFB sections) reached the pinnacle of editorial success at the cost of too many other products that were never done, since the same designers (of all of their games) did both *NEXUS* and new products. Task Force Games dropped the magazine at that point, honorably exchanging the undelivered issues for other products.

Since that time, Doomsday has come and *Star Fleet Battles* is a bigger phenomenon in the gaming world than it was during the heyday of *NEXUS*. A new generation of players have heard of the old TFG magazine as little more than a legend. Time and again, new players are told "That was in *NEXUS*" or "Oh, I forgot you haven't seen *NEXUS*" or "They started doing that in *NEXUS* and it just grew from there." These new players have told us that they want the material from the old issues of *NEXUS*, and even veterans have said they would like to see that material updated for the Captain's Edition.

ADB surveyed the material from *NEXUS* magazine and found enough that needed reprinting to create an 80-page book. John Olsen accepted the idea and suggested that we simply make it an issue of Captain's Log. This seemed a sensible idea (and it avoided creating another category of products), and we began formatting the material to fit the Captain's Log mold.

The material from the old *NEXUS* issues can be divided into three categories: that which is out of date (convention announcements, addenda, product schedules, most of the early Q&A), that which has been or will be published elsewhere (the fiction and scenarios, and rule D16.0), and the articles of enduring value which have never found a place in Doomsday. It is the material from this third category which is published here. In keeping with the Captain's Log format, we selected one story, turned an ancient article on Klingon battlecruiser variants into SSDs, and created new scenarios to go along with the ships.

Captain's Log #13 was created by Amarillo Design Bureau and published by Task Force Games, Post Office Box 50145, Amarillo, TX 79159. Contact Task Force Games to order spare parts (or to obtain a list), replacement of defective or missing parts, or anything relating to TFG products other than *Star Fleet Battles* products. Include a stamped self-addressed envelope.

All rules questions and submissions of new material should be sent to Amarillo Design Bureau, Post Office Box 8759, Amarillo TX 79114. Include a stamped self-addressed envelope if you wish a reply. Unsolicited submissions are accepted only under the standard terms found in SFB Advanced Missions and become the property of Amarillo Design Bureau immediately upon receipt; anything published is compensated at our standard rates. Others should inquire by letter.

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NEXUS began back in 1982, shortly after I sold my half of TFG to my partner Allen Eldridge. We had been planning for a magazine for two years, and the plans finally came to fruition. From the first issue, ADB provided Task Force Games with a "package" of SFB material for inclusion in each issue. The size of this package varied widely, depending on everything from how busy ADB was to what material was available to what else needed to be printed. The schedule started out as a quarterly, and indeed TFG and ADB managed to do three or four issues each year from 1983 through 1985. Only one appeared in 1986 (ironically, the best year that the old TFG ever had), two in 1987, and the final issue was mailed in early 1988.

The primary focus of SFB in *NEXUS* was in the publication of errata, long lists of endless rules changes and revisions. Every time we added a cute new idea to the game, we had to modify 20 other rules to make it work. During this period, anyone could campaign for the righting of some perceived imbalance in the rules, and many did. As I once told a crowd at Origins, we thought we were giving the players a free expansion kit, but they thought we were playing with their minds. Errata (which was renamed addenda when people came to hate the original term) was generated by the top 1% of players, the ones who write 99% of the mail to ADB. Judging from them, everyone wanted more errata/addenda to keep the game fresh, incorporate new ideas, and pursue the elusive goal of "balance." Eventually, the Commander's Edition strangled under the weight of the rules changes, and the horrors of that era produced the new Captain's Edition, along with the policy of only fixing mistakes and not endlessly fiddling with balance or adding trivial new rules that require major rewriting. In a very real sense, *NEXUS* was a product of the Commander's Era, when the game was in a state of flux and the players in a state of confusion.

Only a handful of SSDs appeared in *NEXUS*, and these have all long since appeared in the new Captain's Edition. While some of the Klingon battlecruisers from *NEXUS #2* became formal variants with their own SSDs, a few did not and we are pleased to have finally had a chance to provide them here.

Star Fleet Battles fiction had its start in *NEXUS #6*, and we decided to reprint that story here while reserving all of the rest for a future product. It is an interesting point of note that when *Behind The Glory Of The Heroes* was printed in 1983, the foul language was considered "shocking" by the gaming industry and public. By 1993, worse language is heard in casual conversations on network television every day.

An unintended humor section of the old *NEXUS* was the constantly updated "product release schedule." Some products announced as "coming soon" in 1983 have yet to reach print. This was, entirely, my own (Steve Cole's) fault as I never sat down to figure out how long any given product would actually take to design, but simply selected dates on the calendar that would be "a good time to release this product" or which were "far enough in the future that surely we'll have found time to work on it by then."

Thanks to the tireless efforts of Steven P Petrick, all of the material in this product has been updated to the standards of the Captain's Edition. This required deleting a few tactics, rewriting many more, changing Lyran clans to counties and Orion clans to cartels, and many other changes.

Thanks must also be given to Leanna Cole, who took computer files that dated back as far as the original ADB computer (an Apple-II+ called "Dino") and converted them all to the current standard Macintosh formats. This was a huge amount of work, and while few realize it, all of that effort produced a better-looking product that is easier to read and understand.

Thanks go to the many staff officers who have served SFB over the last decade, including: Felix Hack, Frank Crull, Keith Velleux, Owen Riley, Scot McConnachie, Mark Schultz, Stewart Frazier, Bill Heim, John Berg, Marc Cocherl, Gregg Dieckhaus, Tom Carroll, Chuck Strong, Bruce Graw, Scott Mercer, Ken Burnside, Gary Plana, Chris Cafiero, Jon Cleaves, Alan Gopin, Tony Medici, Jeff Smith, Mike Thompson, Richard Kerr, Anthony Robinson, Graeme Cree, Josh Spencer, Paul Paella, Marc Michalik, Mike West, Stacy Bartley, Mike Hault, Graeme Bayless, Ron Spitzer, Steve Kay, Alex Matthews, David Zimdars, Evelio Perez-Albuerne, Ken Kaufman, Jim Hart. A special mention goes to staff officers Tony Zbaraschuk, Bill Walter, and Jeff Laikind, who revised the F&E rules for the ISC especially for this issue.

NEXUS #1 also included the timeline (reprinted in CL#5), new rules for the out-of-print game Federation Space, Local Conditions (now in the rulebook), the scenario Time Warp, a product survey, miniatures rules, and the first PF rules.

NEXUS #2 included another survey, the first draft of the X-ships, and the Feds-vs-Kzintis scenario Stasis Box.

NEXUS #3 included pages of questions & answers, the scenario Wolf in Sheep's Clothing, and a miniatures article.

NEXUS #4 brought yet another survey, more questions, the first Q-ship SSDs, the first mention of Starlist, and two scenarios — Destruction of the Wolfpack and Assault on a Starbase.

NEXUS #5 introduced the first set of tournament rules, the first Master Weapons Chart, three new SSDs (D7C, Kzinti CC, Jaguar), and the scenario Border Incident.

NEXUS #6 included the Play-By-Mail system, introduction to the Commander's Rulebook, a collection of campaign rules called Lyran Space that later went into F&E, four SSDs (Lyran and Hydran Tugs, Gorn BDD, Tholian DD), and the first of a detailed series of articles on painting miniatures.

NEXUS #7 began the regular feature listing ship names with the Kzintis. (All of the ship name lists were repeated in Update #2 and will be in a future product.) Also included was the scenario A Stone's Throw, the first selection of term papers, and the first set of errata for the Commander's Edition rulebook.

NEXUS #8 presented the first automatic reject list, more questions, the story and scenario Patrol, the scenario *Ares* is Down, Federation ship names, a new set of tournament rules, and two pages of text missing from Captain's Log #3.

NEXUS #9 included Klingon ship names, miniatures, frigate variants, product previews, war cruiser variants, errata, Klingon Tactical Command, and the story and scenario Frontier Patrol.

NEXUS #10 had Romulan ship names, the story and scenario Report by Tiercellus, a draft of (D16.0), and more errata.

NEXUS #11 included the Gorn ship names, story and scenario First Command, errata, and the Bargantine Campaign.

NEXUS #12 introduced the SFB Telescan computer BBS, addenda, the story and scenario A Warrior's Death, a draft F&E map, Hydran ship names, and Cadet Training Module. Errata became Addenda (since it included new rules, too).

NEXUS #13 moved the BBS to Golden Billboard, the formal request for new races for Supplement #4 (they're still on file), Lyran names, addenda, and the Lyran Democratic Republic. This was the first issue done on the Macintosh.

NEXUS #14 included new drones (FD10-14), the plasma bolt, the plasma-D and rack, Orion ship names, and addenda.

NEXUS #15 presented Tholian ship names and miniatures, addenda, F&E errata, and the first draft of (D22.0).

NEXUS #16 had the ISC ship names, another survey, the story and scenario First and Future Shock, and more addenda.

NEXUS #17 included WYN ship names and miniatures, the story and scenario Brothers, another survey, more product announcements, and convention news.

NEXUS #18 included yet another draft of the X-ship rules, along with questions and convention announcements.

We have not listed (or reprinted) the many fine articles that were not about SFB.—*Steve Cole*

BEHIND THE GLORY OF THE HEROES

by Joseph McCarthy

Kelly was bored. As she sat before her scanner console chewing on her sandwich by rote, a small part of her mind drifted to thoughts of blue skies and soft, rolling hills. She had felt space service would be glamorous when she joined, and the constant warnings of her instructors did little to dampen her youthful enthusiasm. But sitting in front of her console and eating her dry, tasteless sandwich, she now realized how right her instructors had been.

"If you want to learn skills, if you want to serve the Federation, or if you just want a 'growing' experience, then Star Fleet is for you. We are not a glory outfit; we just do a job and do it well!" So said all of her instructors, and while the words themselves varied, the content was always the same. Now and then a wise old Fleet Captain would visit the Academy to say that "Service in Star Fleet is two years of boredom and an hour of stark screaming terror."

A star winked on her console.

Her mouth stopped in mid-chew. Although the stars were represented by mere pinpricks of light, the screen — being the visual end of an energy emissions detection system — had to dampen them severely to prevent the stars from drowning out and distorting ship emissions. The fact that the screen was there at all was to back up the computer just-in-case.

As she realized stars were not supposed to blink, her left hand shot to the computer keys while her right tossed her sandwich into the disintegrator opening. The computer should have been spitting complaints out by now. She stopped automatic scan and turned her dish back to where the blink occurred, telling the computer to run a replay on the small screen beside her. It blinked again. The computer did not seem to feel it important, but at least she knew she did not hallucinate the event.

Kelly was certainly conscientious. She took her job seriously and now felt strongly that she had seen something serious. As she commanded the computer to look for further blinking stars, she punched the Comm button.

"Bridge."

"Petty Officer Wright here at E-Scan. I have a problem and computer recorders confirm. Could I have an officer?"

"Lieutenant Lin-tse Lau is O.D. He'll be there directly."

"Thank you. Wright out."

Kelly watched the computer work on the problem for a brief moment, then punched her Comm button again.

"Switch."

"Petty Officer Wright here at E-Scan. Please patch me to Sensor one."

"Will do."

"Thank you."

"Petty Officer Delveccio, Sensor one."

"Laura, this is Kelly."

"What can I do for you, Kelly?"

"I've got a little problem here." She saw a shadow on her console telling her the O.D. had arrived. She pointed to the remote console beside her.

"I need a scan on section..." she punched two buttons beside her main screen, "nine-zero to one-zero-five. Yes, nine-zero to one-zero-five. Check it out for me and call back, huh?"

"Sure, Kelly, be right back to you. Delveccio out."

"Ah, Kelly. What is to be the problem?" Lin-tse Lau was an Andorian. His blue complexion never ceased to startle Kelly whenever she first glanced at it, and he never did master

Federation standard with the smoothness everyone else did. But he made this base station a pleasant and well-run place when he was Officer of the Day and was a great factor in its popularity among free traders and the occasional starship.

"You saw the screen?"

"Yes. Nothing did I see. What was supposed to be?"

Perplexed Kelly reran the scan with enhancement. "Watch." The star blinked -- more clearly this time.

"Ah, that is why you are here and I am not," said Lau with a smile as he bent to work at the console. The Comm suddenly buzzed.

"Petty Officer Wright, E-Scan."

"Hi, Kelly, Laura. It seems you win the sharp eyes award. It's a long way off, but I've been able to get an outline. That's all. Something is moving out there, but I'll be damned if my sensors can get a fix on it."

Lieutenant Lau smiled at Laura's profanity. Andorian women were much less liberated than their human counterparts.

The O.D. leaned over Kelly and took the Comm. "Lieutenant Lau here. Please to sharpen scan and to call Captain Mitzi to your station. I will to remain here and coordinate with you. Lau out.

"Yes, Kelly, yes. The computer worked even without understanding. See here, you will be interested."

On the remote, the computer had run a line through stars that had been blanked out and others which had edges clipped off of them for an instant. Four simultaneous courses had been noted, and there was minimal side to side movement. Whatever was coming was coming at them on a steady, if curved, course.

"It would appear a ship under cloaking device to be, Kelly," Lau said with his eyes on the screen and the flashing computer numbers under it. He punched a few more buttons, and the image intensified. The background lightened, then darkened.

"Here, let me." Kelly's more experienced hands took over the enhancement work. Soon she had darkened the background to such an extent that the stars had disappeared. But four small fuzzy balls had not.

"Damn," said Kelly under her breath.

Lieutenant Lau got on the Comm and talked quietly with someone while Kelly called up data and told the computer to identify the devices. She jumped with shock as the General Quarters alarm whooped through the base, but her eyes never left the blinking note on the screen.

"ROMULAN"

"That is most strange, Kelly." The General Quarters alarm lapsed into silence. Kelly had slipped her helmet from under the console and was getting ready to hook the Comm units into her ears. "No, Kelly. Not here do we see Romulans. Maybe a Pirate with a Romulan device?" He shook his head. "No, we do not see that either. We see Romulans." He looked over at Kelly with a very odd expression.

"You did most well, Kelly. They do not surprise us because of you, and we will be most prepared for them. We will to them give a most hot reception." He nodded. He seemed almost absent-minded. "Yes, Kelly. You did well."

Lieutenant Lau walked away, and Kelly put all her concentration on her instruments. She wanted the Romulans to show a genuine emission so she could get a better fix on their location, but they did not oblige. She knew that the nearby Federation starships had already been alerted and would arrive soon to drive the Romulans off. All the same she was spooked by Lieutenant Lau's tone and expression. Oh well, she shrugged, Andorians are aliens after all.

It was a long time before the approaching warships uncloaked and became visible. Immediately three pairs of warp engines were captured by her E-Scan: one pair quite large and the other two only slightly smaller. Very quickly a fourth, much smaller pair, was picked up. Her computer estimated that the three large emissions were cruiser class engines and the fourth pair, the smallest ones, were destroyer-type engines. Very quickly the computer, in communication with the scanning net

work of the station, confirmed the approach of a KR Cruiser, two War Eagles, and a Klingon-type frigate, probably the K5R that had been seen in this sector some weeks ago. She fed her information into gunnery.

Her professional detachment was shaken a bit when she picked up torpedoes heating in their tubes. But soon the starships would get here and drive them off. All they had to do was hang on for a few minutes. It would be a tough fight no doubt, but she was confident. When the base's phaser warning light blinked on her console, she shut her equipment off. The emissions of the phasers would blind her, and her E-scan wasn't needed any more. Sensors one and two would govern the weapons fire.

She sat back and felt the floor hum with the shots. Out of the corner of her eye, she watched the warning light, poised to turn her equipment back on the moment the light went off.

She never actually felt the blow. She simply found herself on the floor stupidly thinking that she should have strapped herself in as they do on the ships. The air was acrid with burning plastic and a putrid-sweet smell she didn't recognize. She vaguely heard screams in the distance and a muffled bleating of something, but her ears felt as if something was pressuring them. Her eyes began to sting and water.

Quickly she gathered her wits and grabbed her respirator mask. It took a minute for the mask to clear and her eyes to stop stinging, but soon the air she breathed was good and her vision rapidly improved. As her eyes recovered, so did her hearing, and a raucous cacophony began to assail her. As she looked around, she began to wonder if regaining her senses had been a good idea after all.

The wall behind her station was gone. A plastic partition that divided the bulkheaded area into several compartments had melted and was burning in places, throwing up a sickly black smoke. The scene behind was confused and obscured with haze, but running figures and racing fires were visible.

It seemed like hours before she could force herself to move. As a robot fire extinguisher sprayed foam on the fire in front of her, she managed to get to her feet. Her head ached a bit, and she found a fair-sized dent on her helmet. As she stood and watched the terrible scene play out in front of her, she could scarcely believe her eyes.

"What the hell are you doing, woman? Get your ass in gear!" a figure in front of her shouted.

That was enough. She pulled the comm units out of her ears and ran into the smoke, stumbling over pieces of melted plastic and broken equipment.

A second jolt to the station sent her flying. She howled with pain as her hand slammed into a glob of still burning plastic, and she banged it on the floor in a frantic effort to get the searing material off of it.

With tears in her eyes, she picked herself up again, holding her burned hand close to her, and tried to find someone in command. A figure leaning against the remains of a console looked familiar, and when she got close enough, she recognized the features through the smoke and the figure's respirator. It was Lieutenant Lau.

"Lieutenant Lau! What do you want me to do?"

"What?" Lau turned dazed eyes up at her, and she could see blood, almost like blue paint, pooling in the bottom of his mask.

"Lieutenant Lau!"

"Oh, Kelly. Yes." He looked around. "Go to sick bay. They need help in sick bay. Yes. Go there. There is nothing you can do here."

Kelly was horrified by the sight that greeted her when she stepped into the smoking hallway. Shadowy figures, supporting other shadowy figures, staggered in the haze. The muffled
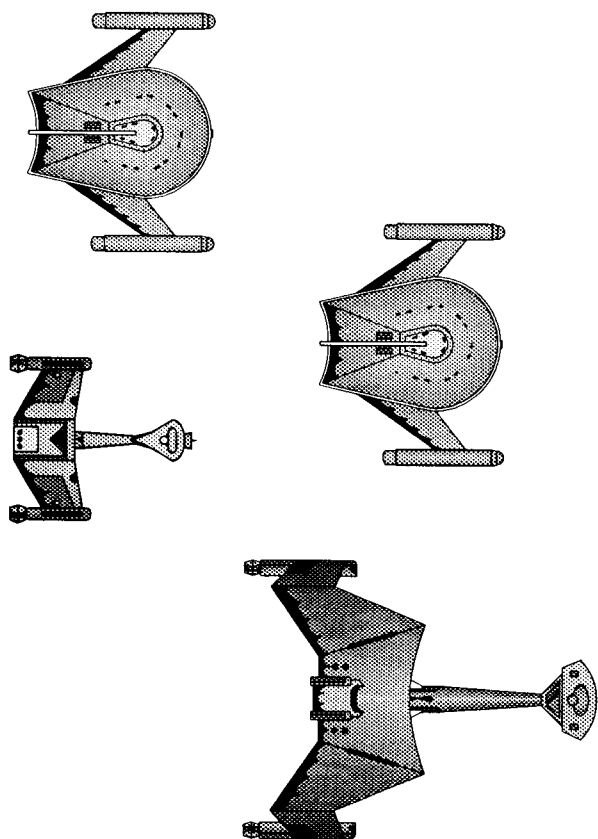
screams of someone reverberated again and again. Just in front of her was a body with yellowing bone showing through the charred fragments of skin hanging on the face and naked torso. As she tried to choke back the rising bile, she found herself staring involuntarily at a large patch of gleaming red. Then the charred figure stirred, and a blackened arm started to rise.

Retching, Kelly ran away. Trying to force the image from her mind, she stumbled blindly through the hall, stumbling repeatedly into lurching figures. The station jarred violently again, and she banged her face into the wall. She crumpled to the floor blinded by the pain. Her mask began to fill with blood from a gash on her nose.

Now Kelly was truly afraid. Where were the ships? With blood filling her mask and the casualties shuffling past her, she felt such a hollow gut wrenching terror that she shook. She wanted to curl into a ball and weep. She wanted her mother and father to come and pick her up in their loving embrace and tell her everything was going to be all right. She wanted to close her eyes as tightly as possible and find, upon opening them, that this was all a terrible dream and that her lightheadedness was due to the unreality rather than the bad air. Kelly had paid lip service to the possibility of her own death, but had never actually come face to face with it. Somewhere inside her a little girl was cringing in a corner, wailing and crying for God.

"Hey." Someone shook her shoulder. "Hey, you OK?"

Weakly she raised her head and was staring into another insect-like mask. Strange saucer eyes stared at her from the wide face-plate.

"God Almighty. Your face cut?"

She managed to form the words, "My nose."

The figure picked her up in strong arms and held her steady. The reassurance of those arms oozed through her like a balm. Gradually her wits began to return.

"Come on, we've got to get you to sick bay."

"Ah, that's where I was going." Her head cleared more. Again the base jolted, this time so hard the very floor plates seemed to jump off their beams. He grabbed her and held her tight against the hot wall. She wanted him to hold her forever.

"Shit, lady, let's get our asses out of here."

With him pulling her along, they threaded their way down the hall. Soon she had regained enough of her senses to run along with him rather than be pulled. With him leading the way, they found the sick bay.

The sick bay was filled to overflowing with burned and dying victims. On a makeshift cot, a woman with her legs burned into a pair of stumps whimpered softly. A man somewhere cried repeatedly for his mother. Someone was screaming, "Don't tell her I died like this!" over and over. She was glad her mask cut out the stench.

She then noticed the air was clear. The man beside her had already removed his mask to reveal the wide-eyes and elfin features of an Arcturian. Shakily she pulled hers off and felt pain as the dried blood was pulled free from her lips. She had to steady herself against the stench.

"Jesus, you look a mess!" exclaimed the Arcturian.

"Yeah," Kelly answered. "I feel a mess."

"Well, I doubt you'll get help here very quick."

The Arcturian looked around at the Pandemonium raging around them. Doctors and nurses, soaked with blood, were frantically administering to the victims they thought they could save and were giving potent pain killers to those they felt they couldn't save. One nurse broke away and approached Kelly.

"Hold still." She flashed an instrument at Kelly's nose. "Not broken." She gave Kelly a quick once-over, slapped some ointment and a gauze glove on Kelly's burned hand, then was gone. It all happened too quickly for Kelly to react.

Kelly just felt she was taking up space, and she could not remember why Lieutenant Lau had wanted her to go to sick bay.

As she set about looking for an officer, the Arcturian in tow, she felt her shaking subside and almost considered the situation normal. A feeling of detachment began to set in. The station lurched again, only lightly.

They quickly left the sick bay and went into the smokey hallway. Her blood-encrusted mask stank when she put it on again. They found a Lieutenant bellowing orders to scurrying marines while the base again vibrated with a hit. The Lieutenant saw Kelly and her companion and pointed down the hall with a violent gesture.

"Haul ass down there and get a phaser from Sergeant Becker. Move! We've got boarders!"

Boarders? As Kelly and the Arcturian ran down the hall, the word bounced around her head, and with it the little girl inside her shivered. Then the situation became comical to her as her thoughts drifted to the boardinghouse her mother had run when Kelly was a child. The thought of sitting down to tea with Romulans made her laugh aloud. Her companion looked at her queerly. She was jolted back to reality.

How could there be boarders? How could the Romulans afford to board the base with Federation starships charging at them. How could they get that near? True, they were being hit, but the reinforcements were no doubt doing far more harm to the Romulans. How about the base's own weapons crews? How about those heavy phasers?

Sergeant Becker turned out to be a huge black man with phaser rifles hanging from every part of his body; bandoliers of grenades were lying in a huge pile around his feet. They had just gotten to him when he shoved a grenade launcher and bandolier at Kelly and a rifle at the Arcturian.

"Over there! Go up to 'B' deck, turn right past the commissary, and report to Sergeant Pau! Move!"
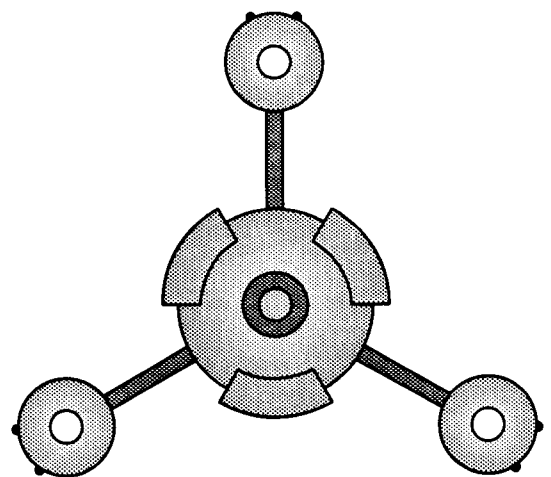
The mask was hot and sticky, and Kelly's nose and hand hurt. She scrambled down the stairway and shivered as she noticed that the steps were slippery because they were bloody. At the bottom she saw a dead Romulan — her first.

He looked so small. His features were unrecognizable because his face was burned, but his body appeared unscathed. She closed her eyes hard as she stepped over him and went into the hallway.

"Dammit, get down!"

She dropped. A bright beam of light flashed, and she was showered with sparks.

"Here! Over here!" A barricade.

She crawled up to it crab-wise, feeling the presence of the Arcturian behind her. She felt comforted by having him there.

The barricade was a large piece of metal with furniture piled around it. Holes and gouges peppered it. There were a few people at the barricade and many more bodies behind it. She tried to avoid placing her hand on any of them.

"Sergeant Pau," she called quietly. A figure quickly motioned to her.

Sergeant Pau was a coarse-looking woman with a nasty burn across her arm. The blisters were exposed through the burn in her uniform. She seemed to ignore the wound, but Kelly flinched in sympathy.

"You gotta launcher? Good. Lift your head real gently here; they're around that corner." Kelly looked down the hall and could vaguely discern the intersection. "You know how to use that thing?" Kelly nodded. The base commander insisted on training everyone to use hand weapons. "Okay then, you pop two down there, one on each corner."

Kelly checked the launcher and loaded it. Carefully she took aim over the barricade ... and dropped like a stone as blinding phaser beams took off the top of the barricade, decapitating two defenders.

A fist banged her shoulder painfully. "Dammit, quickly!"

Gritting her teeth, she popped her head over the barricade and sighted her launcher; she saw figures in the hall. She squeezed the trigger. Pop! Pop! Quickly she dropped again as the hallway lit up with the exploding grenades. Screams echoed frightfully, then silence.

Sergeant Pau looked over the barricade.

"I think you did it, honey. Damn good thing you had that launcher. I hope someone sends more defenders."

Kelly sat back against the barricade and turned to the Arcturian.

"You know, I don't even know your name. I'm Kelly Wright. E-Scan."

"Bna-Crit'sa," the Arcturian answered with a smile. "Call me Bna for short. Phaser bank number three."

"What happened?" Kelly asked with concern.

"They hit us hard, blew out the bank. Hell, I was so busy getting out of there after they breached the hull I'm not sure what else happened. Three and four got it at once."

Kelly felt cold. "How about the rest of the banks?"

The Arcturian had gotten to his knees and was trying to peer through a hole in the plate. "I don't know about them. I haven't felt them fire for a long time though."

Kelly felt colder. Where are the ships? Someone claimed to have seen Federation marines, apparently reinforcements from the ships, in another part of the station. Kelly tried hard to believe that, but knew in her gut it was wishful thinking.

"Okay, people!" Sergeant Pau looked around at the pitiful crew left to her. "Okay, people," she said more softly. "It looks like they're going to try again."

They got up to the barricade again. Kelly strained her eyes, staring down the corridor. She could see the blackened area where her grenades had exploded. The hall was silent, and the thick smoke seemed to dampen it all the more and make it increasingly oppressive.

"They should show any minute," someone beside her softly said. "They might be Praetorians. I heard that a Praetorian strike team had assassinated the base commander."

"Shut up!" Sergeant Pau ordered.

Kelly checked her weapon. Her mouth felt as if she had been sucking on rock wool. She tried unsuccessfully to swallow, as her sweaty palms massaged the launcher with absent-minded motions. Bna smiled uneasily beside her. She tried to smile back. All they had to do was hold out, she told herself. The ships must be here by now, making scrap out of the Romulans. All they had to do was hold out just a little while longer. She saw a flash of motion in the smoke, but no one fired. Someone started to scream wildly down the corridor, then the sound was cut off.

"Okay, people," Sergeant Pau said quietly. "This is it. Get those grenades ready. Don't expose yourself over the barricade if you can help it. Just keep cool, and we'll get through this."

The smoke seemed to get thicker. A hand gripped her trembling shoulder briefly. "You'll do okay," she heard Sergeant Pau in her ear. The hand released her, and she heard the same thing said to Bna.

All they had to do was hold out and the ships would arrive and get them out. All they had to do was buy time. She sighted her grenade launcher at the motion down the hall. Her finger tightened on the trigger. Just a little while longer; help would come if they held out just a little while longer. ★★★

IN THIS ISSUE...

While this issue of Captain's Log is composed of material from *NEXUS* magazine, we still have all of the usual features.

HISTORY includes one of the best SFB stories ever published, and reminds us all that the crew see a very different view of the battle than the officers on the bridge.

DATABASE brings you timeless information that new players have been unable to access until now.

Our SCENARIO section has three entirely new playtest scenarios. Please send reports on these!

The TACTICS section includes the complete transcripts of the very popular Academy sessions, as well as a host of term papers and tactics articles.

FEDERATION & EMPIRE includes two scenarios, new ISC rules, a detailed strategy article, plus the usual features. ✪✪✪

STAR FLEET COMMUNICATIONS CENTER

THE USUAL STUFF

Everything about Rated Aces, conventions, tournament sanctions, tournament kits, spare parts, Starletter, and Starlist hasn't changed since Captain's Log #12, so we won't bore you with repeating all of those things here.

You can send GEnie Electronic Mail to Amarillo Design Bureau care of ADB$ and to Task Force Games at TFG$. Call GEnie at 800–638–9636, and ask them for information.

ADB is also available on CompuServe (71333,2123). You will find messages posted in Section 11 of the PBM Games Forum. To get on line, call 800–524–3388 and ask for Representative #437 for a free introductory membership.

BATTLE REPORTS 1984

★ ORIGINS 1984, June 84, Dallas TX. Fleet Captain's: 1st William S. Chitwood (Federation), 2nd Mark A. Babik (Gorn), 3rd Alan Gopin (Federation) and Pete Reese (Romulan). Demo Derby: 1st David Schenkelberg (Federation), 2nd Orlando Cantu (Gorn), 3rd Bruce Burdick (Federation) and Mark Quam (Federation). Judges: Steve Cole, Frank Crull, Mike Thompson, Graeme Cree, and Ray Olesen.

★ DEEP SOUTH CON, June 1984, Chattanooga TN. 1st Bob Preston, 2nd Tom Hammond, 3rd Alex Matthews and Arthur Townsend. Judge: Jeff Smith.

There were many other conventions in 1984 and earlier which hosted SFB events, but there was no organized system to report the winners to ADB for publication.

BATTLE REPORTS 1985

★ PHOENIXCON 0.5, 29-31 Mar 85, Atlanta American Hotel. 1st Scott Weikert (Klingon), 2nd Bill Blakely (Klingon), 3rd Allen Lewis (Orion) and Jason Spears (Lyran).

★ ORIGINS 85, 27-30 Jun 85, Baltimore, MD. Fleet Captain's: 1st Mark Schultz (Klingon), 2nd David Nika (Kzinti), 3rd Bruce Macintosh (Federation, Canadian National Champion), and John Casey (WYN). Patrol: 1st Frank Lyman (WYN), 2nd David Dollar (Romulan), 3rd Eric Pinnell (Andromedan) and Buck Heckman (Klingon).

★ GAMEX 85, Chapman College, Orange, CA. 1st Andromedan, 2nd Kzinti, 3rd Klingon and Lyran.

★ OK-KON IX, Tulsa, OK. 1st Mike Sweet (Orion), 2nd ACR Griffin (Romulan), 3rd Chris Meerle (Kzinti) and David LaMothe (Kzinti).

★ NANCON, Houston, TX. 1st Eric Nussberger (Hydran), 2nd Glenn Allen Spicer (Orion), 3rd Paul Kramer (Andromedan) and John Viles (Gorn). Judge: Frank Crull.

★ ROCK CON XII, 2-3 Nov 85, Rockford, IL. 1st (TIE) Tim Marx (Kzinti) and Eric Carra (Gorn), 3rd Scot Ohlfest. Ladies Champion Karen Mohring.

BATTLE REPORTS 1986

★ CHATTACON, 18 Jan 86, Chattanooga, TN. 1st Sean Mattingly, 2nd Arthur Townsend, 3rd (tie) Mark Smithfield and Alex Matthews.

★ ORCCON 15-17 Feb 86, Los Angeles, CA. 32-Player 1st Jon Van Caneghem (Hydran), 2nd Phil Erwin (Orion); 64-Player 1st Stephen J Kay (Kzinti), 2nd Robert Chan (Klingon).

★ NOVAG-I, 22-23 Feb 85, Virginia. 1st Peter Reese (Gorn), 2nd Bill Stec (Kzinti), 3rd Kim Brennan (Gorn), 4th John Stiff (Gorn).

★ OWLCON, 12-14 Mar 86, Houston, TX. Captain's 1st John Viles, 2nd Heath Culp; PF Battle 1st Frank Crull, 2nd Eric Nussberger, 3rd Paul Kramer.

★ ORIGINS, 2-4 Jul 86, Los Angeles, CA. Fleet Captain's: 1st Jon Van Caneghem (Romulan), 2nd Graeme Bayless (Klingon), 3rd Philip Erwin (Orion) and Richard Chan (Kzinti). Electronic Warfare: 1st Anthony Medici (Andro), 2nd Jeffrey Worthen (Klingon), 3rd Steven Wood (Tholian) and Allen Treschler (Tholian). Patrol: 1st Jay Davis (Hydran), 2nd Matt Leuthold (Gorn), 3rd Eric Hyman (Hydran) and Paul Kramer (Orion). Judges: The Committee.

★ SYDNEY GAMES CON, 8-9 Mar 86, Sydney, Australia. 1st David Webster (Gorn), 2nd Jason Grey (Gorn), 3rd Gary O'Brian (Kzinti).

★ TECHNICON III, 16-18 May 86, Blacksburg, VA. 1st (tie) Jay Hypes, Greg Humphrey, 3rd (tie) Scott Conner, Dee Taylor.

★ SEAGA 86, 20-22 Jun 86, Atlanta, GA. 1st Pat Brett, 2nd Jay Scheider, 3rd Jeffrey Boe.

★ SPOKON 86, 18-20 Jul 86, Spokane, WA. 1st Mathew Meeusen (Gorn), 2nd Jeff Franke (Lyran), 3rd Dave Weaver (Andromedan).

★ GATEWAY 86, 30-31 Aug, Los Angeles, CA. First Day: 1st Eric Reiser (ISC), 2nd Rick Clark (Kzinti), 3rd Shane Blackwell (Kzinti) and Eric Taylor (Gorn). Second Day: 1st Shane Blackwell (ISC), 2nd Robert Chan (Klingon) and Steve Kay (Orion), 3rd Rick Clark (Orion).

★ NANCON, 30-31 Aug, Houston, TX. 1st John Viles (Gorn), 2nd Tim Ray (Gorn), 3rd Sydney Polk (Kzinti) and Steve Evatt (Orion). Tournament Judge Frank Crull introduced special terrain features in later rounds.

★ DRAGONMEET 86, London, UK. 1st Mike Lay, 2nd Miles Brasher, 3rd Steve Beer, 4th J Steer. Referee: Dominic Swan. Tournament by Champion Wargames Society. A prize shield was provided by Games Workshop.

★ TIN SOLDIER, 7-9 Jun 86, Australia. 1st Jason Grey (Romulan), 2nd Brett Grimmond (Federation), 3rd Brendon Pratt (Kzinti), 4th D Webster (Gorn), 5th C James (Klingon), 6th L Steed (Federation), 7th G Chambers (Federation), 8th Richard Dewsnap (Gorn), 9th C Toh (Lyran).

BATTLE REPORTS 1987

★ UNIVERSE 87, 3-4 Jan 87, Los Angeles, CA. First Day: 1st Ron Spitzer, 2nd Steve Kay, 3rd Jon Van Caneghem, 4th Victor Ippolito. Second Day 1st Ron Spitzer, 2nd Steve Negley, 3rd Devin Cutler, 4th Steve Kay.

★ NOVAG II, 7-8 Feb 87, Leesburg VA. 1st Anthony Medici (Andromedan), 2nd Tom Chartoff (Kzinti), 3rd Jim Albright (Kzinti), 4th Peter Reese (ISC).

★ ORC-CON 87, 13-16 Feb 87, Los Angeles, CA. Heavy Battlecruiser Tournament: First Day: 1st Jon Van Caneghem (Lyran), 2nd Mike Toler (Klingon), 3rd James Webster (Andromedan) and Victor Luke (Tholian). Second Day: 1st Robert Chan (Kzinti), 2nd Darrell Hendricks (Kzinti), 3rd Ron Spitzer (Orion) and Dave Parker (Gorn).

★ MSC CON-CEPTION, 6-8 Mar 87, Denver, CO. Sanctioned. 1st Keith Hurd (Kzinti), 2nd Damien Miller (Federation), 3rd Fritz Nunley (Orion).

★ LOST WORLDS, 7 Mar 87, Cedar Falls, Iowa. Heavy Battlecruiser Tournament: 1st F Michael Miller (Klingon), 2nd Kirk Stainbrook (Klingon), 3rd Jason Steffer (Gorn).

★ OWL CON VII, 13-15 Mar 87, Rice University, Houston, TX. 1st Paul Kramer (Orion/Andromedan), 2nd Eric Nussberger (WYN/Orion), 3rd Steve Evatt (Orion). Committee member Frank Crull organized and judged the tournament.

★ DRAGONQUEST V, 14-15 Mar 87, Laramie, Wyoming. Sanctioned: 1st Evan Birkby (Orion), 2nd Stewart Holbrook (Federation). Judges: John Harres and Charles Tucker.

★ CHATTACON, Chattanooga, TN: 1st Sean Mattingly, 2nd Arthur Townsend, 3rd Mark Smithfield, 4th Alex Matthews.

★ SPOKANE Game Faire, 10-12 Apr 87, Spokane WA. Multi-round with different classes each round: 1st Michael Helbig (Romulan), 2nd Brian Baker (Kzinti), 3rd Ivan Dunken (ISC), 4th Matt Meeusen (Lyran).

★ TEMPLECON, 24-26 Apr 87, Philadelphia, PA. 1st Rich Magee (Federation), 2nd Paul Dugan (Romulan). Judge was Tactical Officer Owen Riley.

★ VEISHEA, 2 May 87, Ohio State Univ, OH. 1st Edward Kastler (Romulan), 2nd David Hemken (Lyran), 3rd Kordell McGuire (Orion). Judge: F. Miller.

★ TECHNICON IV, 15-17 May 87, Blacksburg VA. 1st (tie) Ed West (Orion) and John A Denny (Hydran), 3rd Jay Hypes (Klingon). Judged by Scott "Captain Beef" Conner.

★ POLYCON V, 19-21 June 87, Cal Poly San Luis Obispo. Sanctioned tournament: 1st Richard Fox (Orion), 2nd Steve Robinson (Andromedan). Judged by Felix Hack. Prizes provided by Task Force.

★ ORIGINS, 2-5 Jul 87, Baltimore. See "Origins 87 Report."

★ OKON-10, 25-26 Jul 87, Tulsa, OK. Captain's Tournament: 1st Mike Sweet, 2nd Rodent Griffin, 3rd Joe Miller, 4th Michael Camp. Master's Tournament: 1st Mike Sweet, 2nd Rodent Griffin, 3rd Greg Turner.

★ CON*QUEST 87, 21-23 Aug 87, Edmonton, Alberta. 1st Warren Vickery (Kzinti), 2nd Ken Scholes (Kzinti), 3rd Charles Pollard (Gorn).

★ GATEWAY, 4-7 Sep 87, Los Angeles, CA. (Sanctioned): Saturday 1st Robert Chan, 2nd Rick Clark, 3rd Allen Treschler, 4th Jon Van Caneghem. Sunday 1st Daniel Dallaghan (Orion), 2nd Phil Erwin (Hydran), 3rd Gentry Blackwell (Kzinti), 4th Victor Ippolito (Gorn).

★ PACIFICON, 4-7 Sep 87, San Francisco, CA. (Sanctioned): 1st J P Calarco (Gorn), 2nd Rob Daley (Klingon), 3rd Wes Butler (Lyran) and Rick White (Romulan).

★ REDLEG-II, 5-7 Sep 87, US Army Europe. 1st 1LT Jon Cleaves (Lyran), 2nd 2LT Dave Cross (Klingon), 3rd 1LT Michael Jones (Kzinti). Judge: Jim Neville.

★ DRAGONCON, 2-4 Oct 87. 1st Sean Mattingly (ISC), 2nd Andy Powers (Gorn), 3rd Geoff Rhodes (Hydran). The designated judge was unable to attend, but Tactical Officer Steven Petrick filled in nicely, as he was to do so often in the future.

★ EXTRAVAGANZA CON II, 31 Oct - 1 Nov 87. 1st Michael Sosa, Judges: David Waters and Allen Schwemberge.

★ RAF-WGA, 31 Oct-1 Nov 87, RAF base Cranwell, Lincolnshire, England. 1st Steve Stewart (Gorn), 2nd Steve Roberts (Romulan), 3rd Phil Gibb (WYN), 4th Steve Mardon (Orion). Judge: Steve Charlton.

★ SCICON 9, 7 Nov 87, Virginia Beach. 1st Gary Fortenberry (Federation), 2nd Jerry Skaggs (Klingon), 3rd Jim Detton (Lyran), Judge: Robert Tweedy.

★ NANCON, Nov 87, Houston, TX. Fleet 1st Paul Kramer, 2nd Jon Roda, 3rd Larry Weiss and Curtis Wood. Judge Frank Crull used special terrain to liven up the later rounds. Destroyers: 1st Greg Wheeless (Federation), 2nd Brian Klinger (ISC), 3rd Terry Haugh (Hydran) and John Viles (Klingon).

ORIGINS REPORTS

Since 1984, Task Force Games has sponsored and Amarillo Design Bureau has run major SFB tournaments and seminars at every Origins convention. Here are the reports from the pages of *NEXUS* magazine of the first of these.

ORIGINS 1984: DEBUT IN DALLAS

The 5th Birthday of *Star Fleet Battles* was judged an unqualified success by all who attended. Thanks to everyone who came, played, and helped in making it a success. The "big release" was Commander's Edition Volume II.

The 1984 Dallas Origins Convention saw the greatest assembly of Gold Hats that had ever taken place. Five members of the Committee were present, including Steve Cole, Graeme Cree, Felix Hack, Ray Olesen, and Mike Thompson. Other "Gold Hats" attending included Garner Johnson, Richard Kerr, Andrew Robinson, and Frank Crull. Beyond that, William Chitwood won the 1984 Fleet Captain Tournament and received his Gold Hat at the seminar on Saturday Night.

At the Design Seminar, we ended up with the Tholian Command Cruiser, several interesting scenarios, and new rules for the Klingon emergency boom impulse engines.

The Tactics Seminar was standing room only as people explained their dirty tricks and learned a few more. The "Gorn Anchor" was the most popular topic. Frank Crull helped Steve Cole get this going and became a fixture at future Tactics Seminars. Frank Crull had judged many tournaments and taught Steve Cole how to run one (while running this one), and in 1992 Frank was elevated to the rank of Chief Justice.

The Universe Seminar was highlighted by complaints that the races looked too much alike but *some* races didn't have their maulers (yet)! People complimented ADB and TFG on publishing errata for the games, starting something we all wish we hadn't. Steve Cole swore that he would never print asymmetrical ships, a promise that stood until the Old Galaxy Raider in a recent Starletter. (There was also the D57 on GEnie, but no one took that seriously). It was noted that SFB had added as much to the original source material as it had borrowed from it. Someone asked for a computer bulletin board to be set up, and this was in fact done a few months later. Tholian and WYN players asked for their races to become "major" and were disappointed to hear that not everyone needs to be a major power. TFG President Allen Eldridge stopped by to say hello.

The Origins people had helpfully sold 126 tickets for a 64-player Fleet Captain event. From that point on, the Fleet Captain's tournament was always held for 128, a limit that was broken in 1992 and 1993. Richard Dewsnap came from Australia to play, and while he did not win, his efforts were rewarded with command of the battlecruiser *Australia* in scenario (SH23). We had printed the tournament rules in *NEXUS*, a policy that continued for several years until we began the series of annual Tournament Books that was replaced in 1993 with Module T. We wanted some kind of tournament to keep busy those who didn't survive in Captain's, and selected a four-ships-per-game demolition derby event. It didn't work very well, but Frank Crull and Steve Cole invented the now popular Patrol format for the next year.

ORIGINS 1985: THE ASSASSIN OF BALTIMORE

Almost 200 people played SFB at Origins 85, a number that would not be equalled until 1992. Volume III was released.

The two tournaments ran very well, thanks to the excellent judging staff (Frank Crull, Tom Hammond, Jeff Smith, John Pini). The WYN ship was overpowered, but we did post all of the ships on the wall so players could know this in advance.

Early in the Fleet Captain's Tournament, the judges began warning players that if they did not hurry up they would have to play "the assassin." Rumors rippled through the hall, wondering who this super-captain could be. He was Mark Schultz (then from Pittsburgh, but now living in New York City), the only Klingon to survive the second round. He went all the way to the Gold Hat, defeating four of those overpowered WYNs, two Kzintis, and a Federation ship to win the tournament. He was designated as a Fleet Captain and allowed to rename his D7C *Wynslayer*. Delilah Smith was Miss Star Fleet 85.

The new Patrol Tournament was extremely popular, as players were able to meet up to seven new opponents. It was strongly preferred by players to a demolition derby type event. Frank Lyman won the finals and was hailed as the WYN who won, the WYNer, and a WYN in a million.

Everyone enjoyed meeting the Committee members who were present, the Task Force crew, miniature sculptor Richard Kerr, and Jack Radey, the man who bet the war on one battle.

The SFB seminar lasted four hours Sunday morning (the crew *barely* made it to the airport on time). It was the best attended seminar at the entire convention. Steve Cole spent an hour explaining F&E (which was the big product for 1986), and TFG Marketing VP David Crump ran a product survey which found that few new players had joined the game in two years. This resulted in the release of *Introduction to SFB* the next year.

ORIGINS 1986: ROMULANS RULE LOS ANGELES

The 1986 *Star Fleet Battles* National Championships at LA Origins were a smashing success, thanks to the tireless work of the Committee, the cooperation of the players, and the support of the DTI convention staff. Surely no tournament organizer could ask for a better events director than Jeff Albanese.

The tournaments ran very well. People took advantage of the opportunity to play in the Patrol Tournament for practice before flying the same ship (or a different one) into the Fleet Captain's Tournament. Jon "Top Phaser" Van Caneghem, one of the local "aces," brought his Firehawk into victory in the Fleet Captain's Tournament, marking him as the 1986 National Champion and earning him a gold hat. (Years later, Jon actually bought Task Force Games, later selling it to John Olsen.) He was crowned by Diane Guarino, Miss Star Fleet 1986.

The entire Committee (Ray Olesen, Felix Hack, Jeff Smith, Frank Crull, Alan Gopin) attended, marking the first (and so far only) time that the entire Committee assembled in one place. This gave players an unprecedented opportunity to see the inner workings of the Star Fleet Universe and to find out exactly how the game has been built. Steve Cole (with Committee help) conducted the traditional seminar (as usual, the largest at the convention), answering "why" questions and explaining what's going on in the Star Fleet Universe.

The Joint Chiefs of Fleets, in their historic first meeting, authorized more than a dozen new ship classes, including a meaner Federation Dreadnought (DNG), the Klingon F5E, a new Romulan frigate (SeaHawk) and the leader version of the SkyHawk, a Kzinti war destroyer, a new Gorn light battle pod and a heavy-cruiser version of the HDD (CM), a Tholian war cruiser, an Orion destroyer, a Hydran destroyer leader, the Andromedan Infestor, a couple of Lyran DW variants, and a WYN pocket battleship.

The long-awaited Federation & Empire was released.

ORIGINS 1987: ORIONS OVER BALTIMORE

The *Star Fleet Battles* events at Baltimore Origins 87 were the best ever, with 185 players participating in the Fleet Captain's and Patrol Tournaments. Action kicked off as soon as people got through the registration tables on Thursday afternoon and continued to a 3am finale on Sunday morning between two Orions. Task Force Games provided several hundred dollars in gift certificates and merchandise for prizes. The Tactics Manual was released.

The winner of the Fleet Captain's Tournament and National Champion for 1987 was Kevin "Mad Dog" Hillock, who flew his Orion ship past (or through) three Andromedans, a Hydran, a Romulan, an ISC, and another Orion to win the championship. Second place went to Allen "California Cooler" Treschler, who had tried hard to take a second gold hat back to the west coast. Third place was shared by Michael Hault and Gary Fortenberry. Fifth place was shared by Anthony Medici, Steve Rushing, John Wooldridge, and Steve Kay. Eric Pinnell took the Canadian Championship. Diane Guarino repeated as Miss Star Fleet and won the ladies championship. Evelio Perez-Albuerne became the overseas champion (having left Cuba two decades earlier).

A new system was introduced in 1987. The Committee selected 21 players known to be "aces" and seeded them into the early rounds so that they did not have to play each other until the last four rounds. Of these, 8 made it into the final 16. Significantly, 2 non-seeded players were among the final 4. This "rated ace" system evolved into the present system of sanctioned tournaments, ace cards, and embroidered patches.

The winner of the Patrol Tournament was John Viles (ISC). Second place went to Robert Tweedy (Kzinti). Third place was shared by Eric Hyman (Hydran) and Rick Setter (Klingon). Fifth place was shared by Graeme Bayless (Klingon), Ron Spitzer (Romulan), Bill Heim (WYN), and Bob Yates (Kzinti).

The Senior Staff held a tactics seminar in which they didn't lecture on tactics, but fired tactical questions at players called from the audience. They began with Anthony Medici (who was awarded his gold hat as Andromedan Ambassador, as well as a large yellow sign reading "T-bombs on Board!") and ended by calling Ardak Kumerian forward to explain his less than exemplary performance against Operation Cavalry. Ardak became a permanent fixture at the tactics seminar, but was usually called first.

The Joint Chiefs discussed changes in the tournament ships, new ship designs, and proposed rules changes. Representing the races this year were Mike West (Fed Deputy Commander), Graeme Bayless (Klingon Deputy Commander), Ron Spitzer (Romulan Deputy Commander), Alan Gopin (Kzinti Patriarch), Frank Crull (Gorn/ISC Trustee), Stacy Bartley (Tholian Webmaster), Steve Kay (Orion Crimelord), Mark Schultz (Hydran Viceroy), Anthony Medici (Andromedan Ambassador), Alex Mathews (Lyran Deputy Commander), and Marc Cocherl (WYN Trade Representative). [Steve Petrick, now the Executive Officer of the Star Fleet Universe, first attracted the notice of the staff when he was an unwitting pawn in a power struggle over the B10's firing arcs. He was also one of those selected as a Rated Ace.]

Steve Cole hosted the traditional universe seminar. TFG President Allen Eldridge stopped by, and an embarrassing question from Eric Nussberger doomed *NEXUS* magazine.

ORIGINS FOREVER?

TFG and ADB plan to continue the proud tradition of hosting Origins events for as long as the number of players in attendance merits the effort. How long will that be? (It will be through 1994 at least; arrangements were completed just days before this issue went to press.) And will it be SFB, Prime Directive, or something else that dominates? ☻☻☻

STAR FLEET SERVICE AWARDS

The system of awarding service ribbons and medals did not exist at the time of *NEXUS*, but we have taken this opportunity to award long overdue decorations to the staff officers of yesterday and today for their service during the *NEXUS* years (84-89).
GOLD STAR: Felix Hack.
SILVER STAR: Frank Crull, Alan Gopin, Jeff Smith, Mike Thompson, Graeme Cree, David Zimdars.
BRONZE STAR: Keith Velleux, Owen Riley, Stewart Frazier, John Berg, Marc Cocherl, Tony Medici, Richard Kerr, Anthony Robinson, Josh Spencer, Mike West, Stacy Bartley, Graeme Bayless.
STAR FLEET COMMENDATION: Mark Schultz, Bill Heim, Gregg Dieckhaus, Bill Walter, Ron Spitzer, Steve Kay, Alex Matthews, Evelio Perez-Albuerne, Ken Kaufman, Steve Rossi, Jim Hart.

KLINGON BATTLECRUISERS

The concept of variant ships entered SFB through a short article in *NEXUS* #2 entitled "Klingon Battlecruisers." This article listed several variants of the D7 and D6, some of which (D7N, D7E, D6J) have been formally published in the game since that time. The rest remain worthy of your consideration. SSDs will be found on pages 78-80 (and the inside back cover). Scenarios on these ships are found in the scenario section.

(R3.941) D7Z PHASER BATTLECRUISER IKV *ATTACKER*: This ship was used as a test bed for phaser-1 technology. The original phaser-1s were extremely bulky, requiring as much space as the disruptors. The testing of the systems under combat conditions enabled the Klingon engineers to reduce the redundancy they had originally built in. The resulting phasers were much smaller, but hard to maintain. Due to limited production, the phaser-1 was installed only on command ships until a technological breakthrough was made in the General War.
Entered service Y141; other data same as D7.

(R3.942) D7Y DRONE BATTLECRUISER IKV *HAILSTORM*: A competing design in a runoff (with D7D *Thunderstorm*) to improve the combat effectiveness of the D7. Only one D7Y was built. While both designs were disliked by the admiralty, the reduction of forward firepower doomed the D7Y and the competing D7D entered production in limited numbers. The *Hailstorm* was later converted into a D7D during repairs.
Entered service Y175; other data same as D7D.

(R3.943) D6F ANTI-FIGHTER CRUISER IKV *ERADICATOR*: The appearance of Kzinti fighters, which increased the drone launch abilities of Kzinti fleets, created concerns in the Klingon admiralty. This ship was converted as an experiment to counter this threat. The Klingons eventually found that tactics could defeat the primitive Kzinti fighters, so this ship was placed in mothballs at the end of the Four Powers War. When the need for heavy escorts became apparent in the General War, the ship was reactivated with new technology and improved systems.
Entered service Y162; other data same as D6.

(R3.944) D6Y SEMI-CARRIER IKV *DEVASTATION*: The appearance of Kzinti fighters able to control their own drones, and ships carrying such fighters, drove the Klingons to experiment with the system themselves to counter the threat.
Entered service Y166, explosion strength 17, other data same as D6 (no spare fighter). No specific escorts. Casual carrier. It was converted back to a standard D6 before Y175.

PHASER-G
QUICK QUESTIONS; QUICK ANSWERS

• *1301G: Exactly how do "warp factors" correspond to the speeds in the game?* Warp one is one hex per turn, warp two is eight hexes per turn, and warp three is 27 hexes per turn.

• *1302G: Will the Cadet ships from the Cadet Training Module ever be authorized for general use? They make great frigates!* Those are sub-scale versions of the cruisers, not frigates, and they aren't available within the regular game. We are, however, designing Cadet ships for other races in response to numerous requests to use them for training purposes.

• *1303G: The Energy Allocation Form has HET and EM on the same line. Does that mean that energy placed there can be used for either function?* No, this is simply another case of saving a line on the chart. You should use the traditional "slash" to show this energy as "HET/EM."

• *1304G: Does the appearance of F&E factors for "unbuilt" ships mean that they actually were built?* No, we are simply giving you the option of building units which the actual fleet commanders elected not to build. These are known in naval wargaming as "what ifs."

• *1305G: Will there be a B-refit for the C7? How about a leader version?* The B-refits corrected the Klingon ships for deficiencies that existed in their designs. As the C7 was built after the B-refits began, the refit was effectively incorporated into the ship from the beginning. Like all heavy battlecruisers, the C7 already IS a leader version. There would never be a squadron of three heavy battlecruisers, so there is no need for a ship to "lead" such a squadron.

• *1306G: Why did you reject my term papers, then change the rules to make my tactics illegal?* Your tactics were never legal. We didn't change the rules; we just closed a loophole to prevent an abuse.

• *1307G: Why do you use Russian names for some Federation ships instead of just patriotic American names?* They live on this planet, too, you know. However brutal they are, we must eventually learn to get along with them or we'll never reach the stars. [Since those words were written in 1987, the world has changed. A lot.]

• *1308G: Will you ever print a "Best of NEXUS' volume?* As you can see, this has now been done.

• *1309G: Why do you use so many human names for the Federation? Why not Vulcan, Andorian, etc?* Human names are, generally, real people who are well known to most of the public or individuals that we wish to honor. Alien names would be gibberish made up on the spot. Considering the well documented domination of the Federation Star Fleet by humans, there seems little point in using gibberish.

• *1310G: What is the official Romulan BCH?* The Romulan NovaHawk-K fulfills that role. While it has a tad less firepower, you have to pay for the cloak. You don't get the same firepower as everyone else PLUS a cloak.

• *1311G: What is the best way to find new opponents?* Either put a notice on the bulletin board in your local hobby store, or get the Starlist for your area.

• *1312G: Are the drone reloads on a carrier subject to the racial percentages of special types?* Absolutely!

• *1313G: Why is it that the Federation CA and Klingon D7 appear on most of the game covers?* Because these are the most recognizable for non-Star Fleet players, and we need to attract new customers. And since *NEXUS*, Kzinti, Lyran, Hydran, Tholian, Orion, Romulan, Andro, and Gorn ships have appeared on the covers of other products.

• *1314G: What do Andromedans look like? Really?* Well, they look a whole lot like sort of a...(continued on page 87).

TO ASK THE QUESTION *WHY?*

As is well known, questions beginning with "why" cannot be answered in the Question & Answer system. Such explanations take too long and aren't really necessary to resolve rules questions and get on with playing the game. We did take note, however, of the more important, frequent, and interesting questions and provided answers in *NEXUS* and now here.

BIG SHIPS, LITTLE SHIPS

Why do all of the ships in each race (except the Hydrans) look more or less alike (except for scale)? Wouldn't it be more realistic if each was radically different?

1301W: The ships look more or less alike because of the technology used by each race. Similar hull shapes mean similar firing arcs and common tactics.

It is definitely not unusual for all of the ships of a given race to look alike. Consider that the *Gearing* destroyer, *Cleveland* light cruiser, *Pittsburgh* heavy cruiser, and *Iowa* battleship classes of WWII all look very much alike (aside from scale).

IMPULSE FIRST, OR LAST

Something seems wrong in the Damage Allocation system. The last undestroyed power boxes are almost always warp engines. Yet the background material would seem to indicate that impulse, reactor, or battery power would survive longer.

1302W: We are aware of this and made a conscious decision to make the DAC work the way it does. It isn't really critical where the last couple of points of power come from, and by leaving you a little warp power, we preserve some maneuvering and allow badly damaged ships to crawl off the board or into a safer area (or toward the final encounter). Also, remember the "emergency life support" rule.

SCOUTS

Why is the Fed Scout so expensive?

1303W: Because it is the best scout in the game.

Why is it that scouts can't defend themselves? Every time that I put a scout on picket duty along the border in my campaign (to warn me when enemy ships are approaching), it gets picked off.

1304W: Scouts were never designed to operate independently. When put on picket duty, they should be escorted by a ship or ships suitable to defend it against any reasonable threat that can be expected.

FEDERATION STAR FLEET

Why are the rear shields of the Federation frigate stronger than those of the destroyer?

1305W: Using the destroyer as a basis of comparison is generally invalid because of the design (using about half of a heavy cruiser's parts). The frigate is a smaller ship with a different mission; its shields are designed to meet that mission. The destroyer is designed for static firepower support (it certainly cannot move while loading its torpedoes!) and does not require stronger rear shields. The AWR refit made this ship capable of maneuver warfare, but its weak rear shields remained an artifact of its original design.

Why are Federation ships generally superior to the other ships in the game?

1306W: Because the Federation does not build pure warships, but expects every ship to do peacetime survey duty, which requires a larger hull and more equipment. Also, the Federation generally expects to "shoot back, but never shoot first." Hence, they must be able to absorb an attack without substantial damage.

ROMULAN IMPERIAL FLEET

Why can't the Romulans use type-G drone racks? It would be perfect for the Romulans since it would provide anti-drones against the Federation and a surprise for the Gorns.

1307W: While it might be a novel addition, don't hold your breath waiting for us to publish it. We have tried to avoid mixing technology. The Romulans, Gorns, and ISC don't have drones technology.

Why do the SparrowHawk-E and ThunderHawk have four sensor channels while almost all other PFTs have only two?

1308W: That's the way they were built. The modular design provides enough room for the extra sensors.

Why are the Romulan SparrowHawk-D and SkyHawk-D minesweepers the only ones without sufficient shielding to withstand a mine explosion? Other minesweeper variants of standard ships have increased shields.

1309W: Those are modular ships. Other minesweepers are permanent conversions, and the increased shielding can be built directly into the hull. In the case of the two Romulan ships, the only thing changed is the modules.

KLINGON DEEP SPACE FLEET

Why can't the Klingon C8, C9, and B10 use the cross-deck (D2.32) wing phaser arcs?

1310W: Because they have centerline engines hanging under the boom that are in the way.

Since the Klingons are always at war, shouldn't they have a larger percentage of outstanding crews and legendary officers?

1311W: Not necessarily. In the first place, the Klingons aren't always at war. Secondly, while combat tends to produce more top caliber crews, it also produces more casualties among those crews, and inexperienced crews replace them. So it all tends to work out even.

THOSE WONDERFUL R-TORPS

Why isn't the type-R plasma used on more ships?

1312W: This weapon is physically very big, and few ships can carry it. We have limited the weapon to dreadnoughts (and a few strike cruisers and heavy battlecruisers) and to the War Eagle/Warbird, which is literally wrapped around it. It is a specialty weapon, limited to certain ships.

It is simply too powerful for average cruisers to carry.

IMPULSE SLIDE

Since impulse movement, which accounts for one hex per turn, is "within the real universe" shouldn't there be some momentum? Shouldn't you keep going at speed 1 forever?

1313W: Not really. Impulse movement is actually providing much less than a hex per turn, but we fudge to a full hex to make the rules work better. Sub-light momentum would be 1 hex every five or six turns, but without impulse power to keep the ship stable this would be an uncontrolled slide, not movement. With impulse power you move one hex anyway. The small fractions aren't worth keeping up with.

DECELERATION AND DECELERATION

Why are there two deceleration rules in the game? During a turn you can only decelerate by half, while between turns you can decelerate to zero!

1314W: The between turns rule (drop to zero) is the more realistic since cutting off the energy to the warp field brings the ship to a quick halt. You can assume that the deceleration was planned and that it was not entirely instantaneous (the ship slowed down during the final impulses of the turn); it is shown as instantaneous deceleration for simplicity. Mid-turn speed changes are limited to one-half as a game balance feature, to avoid unrealistic play situations. This also simulates how often you can change engine output without damaging the engines.

SEARCHING FOR A BETTER CLOAK

Why does the searching ship get a chance to reacquire lock-on every turn when the cloaked ship only gets another attempt to break a lock-on if the conditions change in his favor?

1315W: The cloaked ship has a multitude of ways to improve the conditions and get another die roll, and has some control over those actions. Only a really aggressive cloaked ship can get caught on a reacquire roll anyway.

REASSEMBLY

Since the boom/saucer on Klingon/Federation ships is separable, can the ship be built twice as fast?

1316W: No. The same number of people are doing the same number of operations (welding, wiring, installing), regardless of whether or not the two pieces are connected at the time. Other ships can be built in pieces and joined together during construction without being able to do so in combat. (Indeed, the US Navy has been building ships in sections for most of a decade, and the first true Soviet aircraft carrier was built in two pieces.) If you have a salvaged boom or saucer, the cost of building the rest of the ship is reduced by the percentage of interior boxes on the salvaged portion.

ORION REACTORS

Why is it that most Orion ships do not include APRs?

1317W: Deth O'Kay told us that this is partly a tactical and partly an engineering decision. Because of their mode of operations, Orion ships can only afford so much of anything and would rather have impulse engines, which can do anything that APRs can do AND move the ship. Also, reactors cannot operate at increased output because they lack the exhaust systems that engines have to get rid of waste energy.

THOLIAN BATTLE PACKS

Why did you give the Tholians a "Battle Pack" for their LTT when you said in NEXUS #9 that there wouldn't be a Tholian tug because the Tholian players really wanted a battle pod?

1318W: The battle pod may be the reason why Tholian players wanted a fleet tug, but it wasn't the reason why they didn't get one. They didn't get a fleet tug because they didn't need one; they didn't want a fleet tug for non-combat purposes. As to the Battle Pack, putting one on the LTT produces almost the same ship as a CW carrying a cargo pack and isn't a problem. Putting a battle pod on a fleet tug usually produces a dreadnought, which is not something the Tholians need.

PRODUCT IDEAS

Why not print packs of extra SSD sheets?

1319W: How would we decide which ships to do? If you will note, however, purchasers of SFB are given a limited license to copy SSD sheets for their own use. So pick out your favorite ship and have a local quick-printer run you 100 copies (which should cost about $5-$7). He can even bind them into a pad.

Why don't you sell SFB posters? or Coffee Mugs? or paperback novels? or bumper stickers? This would seem to be a good place to make money (which of course could then be used to print more games).

1320W: The problem is that the 80 or so wholesalers carrying TFG/ADB/SFU products carry a limited range of products, which does not include these items. Selling such non-game items would mean recruiting an entire new line-up of wholesalers and retailers. That takes a lot of money and effort. Whole new product lines must be created, and several products printed, all before anyone knows if the idea will make money or not. We are working on several interesting ideas for new products and markets, but the limited resources must first take care of the loyal customers we have.

QUESTIONS ABOUT TOURNAMENT RULES

The following questions concern the organization of the ADB-run Origins tournaments and other tournaments which follow the same format.

Why don't you require people to change ships every round and never use the same ship twice? This would provide a balancing effect and would favor more well-rounded captains.

1321W: A tournament could be run this way, but we selected the current format because most SFB players, particularly those who play in campaigns, tend to play only one or two races. They would win their first couple of games and then find themselves flying a ship they had never seen before. Well-rounded captains able to fly any ship can pick the best of the lot and fly it the whole weekend.

Why don't you use electronic warfare, erratic maneuvering, etc? Surely any captain worth his salt knows these rules!

1322W: Surprisingly, most people don't use them, and they do slow down a game that already runs into the time limits far too often.

Why don't you use an Orion CA instead of a heavily modified BR? It seems that you had to add weapons to the BR to sneak it into the cruiser class, then limit some of the weapons to keep it from being too powerful.

1323W: The Orion is one of the two oddballs in the tournament, as it uses a non-standard power system. The bottom line is power. The CA had 34 power. When doubled, this can blow away any other ship in the game. So we had to drop to the BR (sometimes called the Tournament Battle Raider or T-BR). We could use the CA if we took out the cloak, stealth bonus, and engine doubling, but then we wouldn't have an Orion. We could also take out the center engine, but then we'd have to change the movement cost, and we'd back back to the T-BR.

Why don't you use a Round Robin or Double Elimination system? Half of the players in the tournament are killed in the first round!

1324W: The problem is time. Origins lasts four days, and many people don't show up until late on the second day. There just isn't time to do that and still have the tournament open to people who get off work Friday evening and drive in to start playing. The Patrol Tournament gives you the opportunity to play all the SFB you can stand, so anyone going to Origins to play SFB can do so. And we do have the Re-Entry rule now.

Why don't you use stock ships instead of these heavily modified oddballs?

1325W: Because there simply aren't 12 perfectly balanced stock ships. We try to preserve the flavor of each race, and most agree that we have succeeded very well.

I'd like to see the tournament games played on a larger map to avoid the "boxing ring syndrome."

1326W: Not a bad idea, but impractical from three respects. First, you have to have the maps. Where do you propose that we find them? Printing such small quantities is totally impractical. Buying commercial hex-sheets would cost about 10-20 times as much as the standard SFB maps that come from the TFG warehouse. The second problem is table space. We never know until we arrive just how big the tables will be. The final problem is game balance. Some ships (such as the one flown by the people who asked this question) do better on a larger map. Changing the map would require changing the ships, eliminating the advantage you are seeking.

Why don't you play SFB yourself at Origins? Everyone would love a chance to play the designer!

1327W: I don't play at Origins because with tournaments and seminars to run (not to mention staff meetings, visiting the dealer room, saying hello to old friends in the gaming industry) there just isn't time. I did offer to play the night before Origins last year (in a B10 vs F-18s) but no one took the challenge.✦✦✦

DECISIONS

OF THE STAR FLEET UNIVERSE
BOARD OF PROPOSALS

The Proposals Board did not formally exist during the *NEXUS* years, but many proposals were noted in other *NEXUS* departments and have been assembled here.

PHILOSOPHY (1301B): Long discussions of philosophy based on various books, magazines, and technical publications, telling us where we "went wrong" in designing *Star Fleet Battles*. We have every publication ever produced even remotely related to Star Trek and have studied them all thoroughly. Our decisions as to which items to use and which to ignore were made for good reasons after careful deliberation, and it is virtually impossible to change any of them now.

THOLIAN TUG (1302B): Tholian tugs. They don't need a tug.

SHIP STUNS (1303B): Phaser stun rules. We have all seen the episode where a ship's phasers stunned a bunch of gangsters engaged in a gun-battle, but the scene was one of the elements eliminated during the design of *Star Fleet Battles*. That much energy coming through an atmosphere would cause a hurricane. Using ship's phasers on stun in ship-to-ship combat would instantly become the only means of combat due to the high probability of capturing a ship. Such use isn't practical anyway due to the metal hulls of the ships.

TREK MOVIES (1304B): Anything based on Star Trek (movies) I, II, III, IV, V, or VI. We aren't licensed to use them (just the 60s TV series), and most of what is seen in those movies doesn't fit in the game anyway. *Kobayashi Maru* scenarios. If you want to play this, you can make one up easily enough. Just keep adding Klingons until the Federation player catches on to what you're doing, at which point he will probably strangle you. We can't use *Reliant* SSDs either. We aren't licensed to use it, and the NCL that we designed before ST-TWoK is quite adequate.

ROLL ME OVER (1305B): Turning ships upside down. This is a clever idea that would allow you to turn undamaged shields and unfired weapons toward the enemy while flying in the same direction, but that would tend to make the scenarios last longer and would complicate the rules for little gain.

DOUBLE MINE TOO (1306B): Orion engine doubling for non-Orion ships. You just can't do that!

REFLECTION (1307B): Things to absorb or reflect weapons, or rotating shields. Other than the Andromedans and perhaps a special monster now and then, there is no particular reason to add these things to the game.

NEUTRON SFB (1308B): Weapons that only kill crew units, or weapons that disable a ship's engines. While often proposed as "the perfect pirate weapon," these would quickly be adopted by regular fleets and radically alter the game by making every duel end with one ship captured.

DELAY DRONES (1309B): It seems every Kzinti wants to be able to drop inert drones that can be activated later or to launch them by transporter. The mechanics of the drone itself won't allow these methods of deployment.

MESSAGE TRAFFIC (1310B): R.M. Gilbert submitted a suggestion for coded communications between ships on the same side of a multi-ship battle. Reason rejected: such systems (which have been used for other games) tend to slow down play and shift the emphasis of the game from out-fighting your opponent to reading his mail.

Considering the evidence in film and fiction that ships are able to maintain secure short-range communication during a battle, the validity of the code/code-breaking concept is suspect in any event. Besides, the last thing SFB needs is something else to spend energy for.

KLINGON PHOTON LEADER (1311B): Mark Geiger proposed a Klingon F5C. Reason rejected: we already have an F5L, and his proposed F5C included photon torpedoes, which are never used on Klingon ships (except the original X-ship, since revised, and one ship modified by "The Masters," which cannot be used in the regular game).

LEADER SCOUT (1312B): Tom Hammond proposed a command ship that included special sensors. He pointed out the value of having such things on a flagship. The concept was rejected, however, for two reasons. First, if it is such a good idea (primarily to improve weapons status at the start of a scenario), we would have to put them on all flotilla leaders and command cruisers. After going to that much trouble, everyone would be even again, meaning that we went to the trouble for nothing. Second, command cruisers and flotilla leaders tend to be the biggest and meanest ship in the squadron, exactly the ship that must fire all of its weapons constantly. Why give such a ship the easily blinded scout channels, pay gobs of points for the privilege, and then not be able to use them?

SEEKING MINES (1313B): Nathan Williams proposed a "gravitic mine" that would be able to follow you (at low speed) when it detected you. The idea is novel, but would require a lot of rules. (Can the G-mine cross a web? If it can't, would it be smart enough to ignore a target across a web? What if you put it in stasis? Will if follow you into an asteroid belt? What if you displace it? What if you displace? If it loses its target, how long would it have to wait before it could accept another one? etc.) After adding all of those rules, you would basically have the same effect as a one-shot drone-armed captor mine.

Why bother? Besides, mines can't move. And if they could, even the people who laid them couldn't keep track of where they are, in which case the mines would never have been laid in the first place.

TRACTOR DISMANTLER (1314B): Brenton Burchmore of Australia suggested new tractor beam rules that would allow you to not only grab a ship but also tear his engines off, yank his weapons out, and dismantle the hull plate-by-plate. We turned it down because it would radically change the game and because it would require pages of rules on each ship governing just how well which parts were welded together.

PLASMA-F PACK (1315B): Every six months or so someone suggests a scatter-pack armed with plasma-F torpedoes. It has never made it past the Committee. Such a thing would be impossible (from an engineering standpoint) and is simply not necessary to the balance of the game.

SUCCESSFUL PROPOSALS from the *NEXUS* years are too many to list here, but a few examples include the ISC, several monsters, dozens of scenarios and ships, dogfighting, tactical intelligence, plasma-Ds, many terrain types, crew quality, a half-dozen stories, and hellbores.   ⊛⊛⊛

ASK KOMMODORE KETRICK

Kommodore Ketrick had not been commissioned when the *NEXUS* years ended, but he has assembled the best and most interesting of the questions from *NEXUS* and updated the answers for this special column.

JUGGERNAUT'S BRAIN (Q1301): Should the Juggernaut in (SL1.0) of CL#1 be considered a "computer-operated" ship as in (G11.0)?

A: No, it's fairly smart, but not "super intelligent."

LYRAN PALLETS (Q1302): Does the docking point value for Lyran pallets apply to all pallets?

A: No, pallets are pods. Lyran pallets are singled out because of their wider and flatter shape, which doesn't fit conveniently in the bays.

SCRAMBLING (Q1303): What is a "scrambling device?" It is mentioned in a note under (FD5.35).

A: This is something that had a chance to cause a drone to miss its target, but was dropped in the Captain's Edition.

WARP SEEKING DRONES (Q1304): Since a type-VI drone is basically a heat seeker (warp power seeker), is there anything that can break its lock-on? Could it lock onto a non-warp powered ship? Could a ship escape it by turning off its engines?

A: Chaff could break the lock-on, although only for fighters, but the other means (SWAC, WW, scout, etc.) would not. It could home on non-warp powered targets (bases, sublight ships) because of their other energy emissions. A ship cannot escape a type-VI drone by turning off its engines because the engines' cool-down time is longer than the drone's endurance, and other energy emissions would still provide a target.

DRONE RECOVERY (Q1305): Can you pick up a drone that ran out of fuel? How about one that ran out of fuel while you were holding it in a tractor beam?

A: It would seem reasonable that you could do it, but considering that it's a decent sized thermonuclear bomb with anti-tamper devices, I wouldn't recommend it. In the Captain's Edition, (FD1.71) plainly disallows such recovery.

OVERSPEED (Q1306): Can you escape a 35-strength web by generating more than 35 movement points?

A: No ship in the game, at any time or under any circumstances, can generate more than 31 movement points to exit a web (C2.112). This includes warp booster packs, Orion engine doubling, and ships with favorable movement costs. Have someone come pull you out.

FIRING RATES (Q1307): Bob Tweedy wrote concerning what seemed to be a contradiction between the rule prohibiting weapons from being fired (on consecutive turns) within 1/4 turn and the rule that says a weapon can be fired "once per turn." Bob points out that a turn is 32 impulses, not 8.

A: The point he missed is that the "once per turn" rule means you can fire it anytime you want to within a game turn that begins on Impulse #1 and ends on Impulse #32. The rule does not say that a weapon can only be fired once in any period of 32 consecutive impulses.

The source of Bob's confusion seems to be that firing a weapon on Impulse #32 of one turn and then again on Impulse #9 of the next turn (which is perfectly legal) means that the weapon is firing twice within a period of 9 consecutive impulses, which is less than 32 impulses and, hence (Bob fears), the weapon is firing "twice within one turn." *Star Fleet Battles* is cursed with multiple use of the word "turn" (much as D&D is cursed with "level"). Consider: It's your turn to move; let's start the next turn; I'm turning right; I'm making a high-energy turn; you can only use that once per turn; and things have taken a turn for the worse.

PF DECK CREWS (Q1308): How do I perform module changes on multi-role PFs on a ship without deck crews?

A: Well, of course, rule (J4.814) provides any ship two deck crews, and (K2.381) provides that each modular PF assigned to a PFT [and (K2.11) provides that a casual PFT is still a PFT] comes with one extra deck crew to change the modules. The simpler solution is to put StarHawks and Multi-Role Needles on Space Control Ships and starbases where they belong. Remember, SFB is based on the "history" of the Universe, and doing non-historical things voids the implied warranty that the results will make sense.

LEGENDARY CAPTAINS (Q1309): How can you achieve legendary status in the Captain's Game? This requires 66 points, but the maximum possible score is 64!

A: This is a popular misconception. The actual maximum score is 71 or 78, depending on the base defense scenario. That scenario provides attack groups of two or three ships and awards 7 points for capturing each of them.

UNIVERSE'S EDGE (Q1310): What happens when the scenario has a fixed map and ships can only exit from a specific area and the ships exit (by accident or design) from another area?

A: They are considered to be unable to reach safety and are captured (S1.43). [Lately, the scenario format has evolved to include a notice that such ships are destroyed, not captured, and we'll correct the obvious error in (S1.43) at a later time.] Note that in scenarios with tournament barriers (P17.0) the ships take damage and stop instead of leaving.

TEN CLASSIC QUESTIONS

1. I think that (my favorite race) has been getting a raw deal. My enemies have gotten (lots of new things) while I have received only (a few pitiful new ships). When will you do something to correct this obvious imbalance?

When I no longer get an equal number of letters from your opponents saying the same thing. Seriously, all races have their advantages and disadvantages. I think we have succeeded in keeping them fairly equal.

2. How long does it take to get an answer on questions or rules submissions?

Normally, questions are answered and returned on the day they are received (if they have a stamped reply envelope); rarely, when I am finishing something, this could take a week. If there are a lot of questions and they have to be researched, it could take even longer. Some things, however, are not questions but requests for new material or rules changes, and these can take much longer if they are answered at all.

Submissions of new ships and rules material take a slightly longer path. About 50% are rejected immediately on receipt. The remainder are reviewed at special sessions every month, at which about 75% of what is left is rejected. The rest enters playtest, a process that can take from 3 to 26 weeks and ultimately rejects about 67% of the remainder. The surviving 4 items out of 100 are then scheduled for publication, a process that can take up to a year. Some items, such as the Tholian Web Tender, reach publication within six weeks, but those are the rare and lucky exceptions.

About half of scenario submissions are rejected immediately; the remainder are placed in a file that currently includes 250 scenarios. Every two weeks, we select two or three scenarios and send them out for playtest via mail, GEnie, Starletter, CompuServe, or Internet. Of these, some are rejected, some are used in Captain's Log, and the remainder are used in other products. Some scenarios have been printed within six weeks of receipt; some have been in the file for two years.

3. Can you send me copies of:
A. Everything you have designed but haven't published yet for my favorite race?
B. Something that you mentioned in some product that you had received but weren't going to publish?
C. Something that you haven't even done yet, like a complete list of all (pick a race) ships, including their names, hull numbers, and tactical symbols?

A. Sorry, but no. When we have something ready, we'll publish it for everyone to see.

B. Sorry, but no. There was a reason for not publishing it, and that reason applies equally well to not sending it out on request. ADB doesn't have the manpower to sell photocopies of rejected proposals.

C. Sorry, but no. The work of the Bureau is scheduled months ahead. This is required so that advertising, market announcements, etc., can be made on a predictable schedule. To drop everything and spend all our manpower doing something like this would cheat thousands of fans of their next product to satisfy the request of one individual. Such requests are taken into consideration, however, in deciding what new projects to schedule.

4. You make a million bucks a year from SFB. Lighten up!

Gosh, if I make that much, where is it? Seriously, I don't make anything remotely close to that. The board game industry is too small for such incomes to be possible.

5. Why do I have to include a stamped envelope to get the answers to game questions? I paid $30 for Basic Set!

Of that $30, the designer got (after deducting expenses) less than 29¢ per copy. If I answered a question from every player (and many sent several letters) and paid the postage, I would have done the entire game for free. While that might not be bad for a game that someone knocked off over a weekend, *Star Fleet Battles* has been a full-time job for many years, and everyone has to make a living. If we couldn't pay the bills, I would not be doing SFB any more.

6. Isn't the NCL what the Federation light cruiser always should have been? Aren't you ready to admit that the "old CL" was a bad idea that has now been replaced?

Answer: NOT TRUE! It should not be unusual for a fleet to include many old and new ships. Consider that Reagan's proposed 600-ship navy included ships two decades (or more) old. Building a navy doesn't start from scratch; you make use of what's already in service [i.e., the bright ideas of the previous commander, or the previous Congress.]. With the cost of a fleet of CA-class ships, why spend money on CLs when there are plenty of old *Texas/Carolina*-class ships that can be refitted for 1/3 the cost of new construction? Those ships had several decades of good service left in them; only when they wore out was the money spent for NCLs.

7. Will you be at (such and such) convention?

Probably not. It costs several hundred dollars to go to a convention (transportation, lodging, meals). A game publisher (such as Task Force Games) can count on cash over-the-counter sales to defray expenses; Amarillo Design doesn't have that option (since we design, but do not sell, games). At the time *NEXUS* was written, I had a standing offer to go to any convention that paid for the trip, but my schedule no longer allows this. (Obviously, I need a new schedule!)

8. In the Kzinti ship names list, two of the ships have the same names as Federation ships. Isn't this wrong?

Hardly. As of January 1993, Argentina, Denmark, the Netherlands, Poland, Portugal, Spain, Sweden, the US, Russia, and Germany all operated a ship named *Dolphin*. At least 50 other ship names were in use by two or more countries each at that time.

9. Our playing group would like to do an entire module by ourselves. We have plenty of ships, weapons, rules variations, and scenarios to fill one up. Can we do it?

Answer: Modules are not something to "fill up," but carefully crafted additions to the game. We aren't interested in having people issue their own expansions willy-nilly. Every time we do anything, we have to check everything to make sure we're not contradicting something done before. If others were doing entire products, this would be impossible and we'd have a lot of irate customers as people found dozens of contradictions.

10. I have heard it said that after you make up your mind about something (that will or won't be in the game), there is no way you will change it. Is this true?

Sometimes. Such decisions are made only after months of discussion, debate, testing, and research. It would be silly to go to that much effort and then change plans based on one person's suggestions. (We're sorry if you arrived too late to take part in a given debate, but once it's over, there are other things to do.) Since many things (including some that are completed but unpublished) are determined by these basic decisions, changing them is very difficult, even when we want to.
—Stephen V Cole

A FEW MORE QUESTIONS

You seem to have made an error. The "D6" is the Romulan ship, not a Klingon type. Care to fess up?

There was no mistake. The D6 is indeed a Klingon ship in widespread service with the DSF. The original set of blueprints for the Klingon battlecruiser included information that the D7 was an improvement of the D6, and that the Klingons were giving the Romulans older D6 class ships from their fleet as new D7 ships became available to replace them. (This set of blueprints was unauthorized and uncopyrighted and has disappeared from the market. Newer printings of those blueprints have eliminated much of the written material, including, for example, the references to drones.)

This situation is very similar to 20th century Earth, where super-powers gave away their older ships, planes, and tanks as newer ones came into service. Indications are that the D6 continues in production at one shipyard where it was considered too expensive to convert to D7 production. So, to return to your original question, the Romulan ship is indeed built on a D6 hull, but D6 class ships still serve in the Klingon fleet beside the newer D7s. Information to the contrary is included in several "fan" publications which are not considered authoritative.

Do the races in the Star Fleet Universe correspond to nations on present day Earth?

Not always intentionally, but some similarities appear because of geography and others by design. The Federation is generally thought to be NATO since the smaller members constantly argue among themselves while the Earth (the US) dominates them. The Klingons were intended to be the Russians by the original script. The Kzintis, as we have defined them, are perhaps more akin to the 1941 Japanese than anything else. They have an emperor and a fleet out of all proportion to what they need or could build. The Lyrans have some vague similarities to the Islamic Empire (feudal clans and civil wars); the Hydrans have vague similarities to the British (royalty dominated by shopkeepers, some high technology on generally undistinguished ships). The WYNs are, of course, Switzerland (a mixture of the three bordering races, protected by high mountains). The Tholians are, in some ways, the Israelis. The Gorns were intended to be the West Germans (very few, but very good, ships). The Romulans have Roman names plastered over a basically Chinese infrastructure. They were a great sleeping dragon that woke up and built the Condor-Firehawk-SparrowHawk-SkyHawk-SeaHawk.

What are the chances of my new ship, scenario, weapon, or race getting published?

Fairly slim, although you are encouraged to try since new ideas are the life-blood of the universe. Let me be specific on each case.

Ships: Chances are fairly slim; the Committee and Joint Chiefs are fully aware of what gaps exist in each fleet, and most of these have already been filled (although they remain unpublished). For example, we received several dozen Romulan command cruisers during the six months that the SuperHawk was on file. To be considered, a ship must be both very novel and very logical. For example, the Tholian Web Tender was an obvious need and an obvious conversion of the small freighter, but no one thought of it. Then again, we have to find something to make Module R6 exciting, or no one is going to buy it (in which case, we'll never print it).

Scenarios: Chances are decent if your scenario is challenging and limited to existing ships, rules, and history. We use about 50–75 new scenarios each year (compared to two or three ships by outside designers). Sending in a new scenario

that uses a new ship design (that you submit concurrently) as a key element is not good for your chances.

Weapons: Chances are very slim; we are only interested in new weapons that complement the existing technology, not weapons that make all of the current weapons obsolete.

Races: Chances are just about nil. The game revolves around the Federation, and with the ISC we will have all of the Federation's neighbors and all of *their* neighbors. If the Hydrans attack the Klingons, this pulls ships away from the Federation border and directly affects the Federation. If someone (not currently in the game) attacks the Hydrans, the effect on the Federation is limited or negligible. If this happened while the Hydrans were at war with the Klingons, and the Klingons were at war with the Federation, the result would force some Hydran ships to be deployed to the new front, possibly freeing some Klingon ships to be redeployed from the Hydran front to the Federation front. We are not currently accepting proposals for new races.   ⚉⚉⚉

A SHOT IN THE DARK

Many people have expressed curiosity (or outright disbelief) at how a Kzinti drone frigate could launch at a target 2,500 hexes away. This deserves some explanation.

A Kzinti drone frigate can operate in two modes: long-range launches or direct combat. If assigned to a long-range launch mission, the ship carries type-III or type-IIIXX drones. If assigned to direct combat, it would probably carry type-I drones. Its BPV assumes type-I drones; you don't get the type-IIIXX drones for free.

When used in long-range bombardment, the ship can have one of two missions, which are known in military terms as "deliberate" or "opportunity" attacks. In a deliberate attack, the ship knows what it will be shooting at before it leaves port. In an opportunity attack, it merely positions itself in a likely place and stands by to launch on orders. In either case, it cannot see its target and may not know what it is firing at.

A deliberate attack would most likely be conducted against a fixed target (e.g., a base, the location of which is known fairly well) or a slow-moving target on a predictable schedule (e.g., a convoy). The ship would be told to proceed to a certain position and at a certain time to launch its drones in a certain direction.

An opportunity attack would be conducted as part of a harassment operation. Several ships, perhaps as many as two dozen, would deploy in the Neutral Zone. A flagship would control operations. If a scout detected a target at a certain position, the flagship could send a fighter or PF strike, or one or more ships, to intercept it, or it could order a drone frigate to launch at the target. Drone ships with their own special sensors, such as the Klingon D6D or Kzinti SDF, are capable of detecting their own targets.

Long-range type-IIIXX drones have a two-phase guidance system. The first phase is inertial. The drones are simply told to proceed on a given course to a certain point. During this part of their flight, the drones would ignore anything (even a particularly valuable target) since they are flying blind. Once they reach the designated point, they turn on their active guidance systems, look for a target (which might be designated very specifically or simply random), and home in on it.

For example, a Kzinti drone frigate might tell a drone: "Proceed on course 214 mark 3 for a distance of 15 million kilometers, turn right to a course of 229 mark 2 for a distance of 9 million kilometers, turn right to a course of 242 mark 2, activate sensors, search for something that looks like the thing on page #147 of Jane's Fighting Starships, accept that as your target, and proceed."   ⚉⚉⚉

SPEEDING UP SFB

Probably the major complaint about SFB is that it takes a while to play a single turn. This is largely a factor of having a lot of things that you must do and a lot of things that you *can* do (and hence have to decide between).

Listed here are a few ideas that will speed up the game. You are invited to submit your suggestions, many of which will be published in a sequel to this article in a future Captain's Log. Your comments on how these suggestions work out are of particular interest.

FAST BREAKS

These are quick ideas to speed up the game, ideas that can be expressed in a single sentence. Most have a tendency to warp the game somewhat, and their use is obviously a matter of mutual consent:

Use one ship per player; that's what the game was designed for. Use smaller ships, for example, frigates instead of the traditional command cruisers.

Don't use any terrain (although black holes and pulsars tend to end scenarios rather quickly).

Don't tell jokes or long stories during the game. Don't eat during the game. Don't watch television during the game. Listen to music if you want, but not to a sports event on the radio.

Put a time limit on looking up rules; if you can't find it in 30 seconds, it isn't there.

Use the leaky shields rule and critical hits.

Avoid using cloaking devices, webs, seeking weapons, or electronic warfare. Don't use emergency or continuous repair, plotted movement, fighters, PFs, or mid-turn speed changes.

Play faster.

THE FASTEST DAMAGE SYSTEM

Forget the Damage Allocation Chart, and allow players to distribute the internal hits (properly, damage points) on any boxes they choose. If the volley includes at least 10 internal hits, at least one must be scored on a weapon (the phaser directional restriction must be observed) and at least one on a power system. Alternatively, resolve the first three hits (from each group of 10) by the DAC and then allow the player to distribute the next seven at his own option.   ☾☾☾

COULD YOU GIVE ME AN EXAMPLE OF.... DRONE AVAILABILITY?

A Klingon D7 has two drone racks, each with 4 drones and 4 reloads for a total of 16 drones. Klingons are allowed [by (FD10.6)] to have 10% limited availability and 25% restricted availability. Multiply 16 x 0.10 and you get 1.6, which being 1.5 or more is rounded to 2 drones (or rather 2 spaces). By the same procedure, 25% is 4 drones. Note, however, that the 4 "restricted" drones include the 2 "limited" drones. So the D7 has 12 General Availability drones (explosive type-I, II, IV, or V), 2 drones that can be from the Restricted category (probe, ECM, armored, ATG), while the remaining 2 drones can be from the Restricted or Limited categories (MW, swordfish, slug, spearfish, external armor, or type-III). So one legal load-out would be 12 type-I, 2 ECM, 1 swordfish, and 1 multi-warhead. Now, the reload rules require that the reload and ready use drones be the same as much as possible. So rack #1 has 3x type-I and 1x ECM, with identical reloads, while rack #2 has 3x type-I and the multi-warhead, with 3x type-1 and the swordfish in reload storage. Note that the most expensive drones must be paid for and must be in the initial loading.
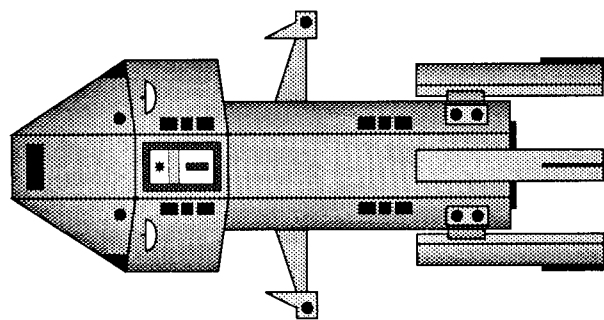
Kzinti ships are better off because of their favorable percentages and advanced drone racks. Let's take a Kzinti command cruiser with 2 B-racks (24 total drone spaces) and 2 C-racks (16 total spaces), for a total of 40 spaces (including reloads). They are allowed 20% (8 spaces) from the Limited/Restricted categories, and select 2 type–IVMW drones (4 spaces) and 4 Spearfish drones. They are allowed 30% (12 spaces) from the Restricted category, and select 2 probe drones, 2 ECM drones, 4 ATG drones, and 4 armored drones. They then select the remaining 20 spaces as 16 type-I and 2 type-IV drones. Load-out includes rack #1C (3x type-I and 1x ATG), rack #2C (2x type-I, 1x ATG, 1x Spearfish), Rack #3B (3x type-I, 1x type-IV, 1x armored), rack #4B (1x type-IVMW, 1x Spearfish, 1x probe, 1x ECM, 1x armored). Each rack has reloads identical to the basic load (which can be reloaded on any of the racks).   ☾☾☾

MISCELLANY

NEXUS #2 included an advertisement for the military intelligence newsletter FOR YOUR EYES ONLY. Eleven years later, Steve still writes the third largest military newsletter in the US. Each bi-weekly issue includes reports on wars (there are over 40 going on), battles, arms sales, budgets, new weapons, tactics, and technology, as well as in-depth features on key developments. A year's subscription (26 issues) is $65 in the US, Canada, APO, and FPO; $69.06 in Texas (including sales tax); and $82.00 by airmail to the rest of the world. A sample copy is $2. All payments must be in US funds drawn on a US bank. Tiger Publications, PO Box 8759, Amarillo, TX 79114.

NEXUS #5: Joe McCarthy, one of the senior playtesters, called me in 1983 and said: "The problem with *Star Fleet Battles* is that you add some cute little rule and then spend three expansions explaining how it interacts with every other cute little rule." Joe was absolutely correct back then, and as we did the "Golden Anniversary" Commander's rulebook (and again when we did the "Doomsday" Captain's rulebook), his words continued to haunt me. Even now, as we do new rules, we find ourselves writing entire sections called "interactions."

NEXUS #8 had some ideas for use with the miniatures that were available then: Use painted Styrofoam balls for planets. Cotton balls, lightly painted with red and gold (it takes practice) make excellent plasma torpedoes. Small pieces of dowel can be cut to a 1" length (drill the holes for the bases first) and carved to appear as drones.

NEXUS #16 noted that one of the top US defense electronics contractors is a company named International Systems and Controls, Inc. Their official company motto is "ISC: Good people to get to know."

During the *NEXUS* years, there was a file at ADB intended to produce a "spoof" issue of *NEXUS* with such SFB features as the "Legendary Laundry Officer." This project was never published, and the file has, unfortunately, been lost to history. Even so, failure to at least mention this project would have left this journey into the past incomplete.   ☾☾☾

BASIC POINT VALUE: HOW IT WORKS

Stephen V. Cole

Of all the questions concerning *Star Fleet Battles*, those concerning the Basic Point Value (BPV) system are the most often asked. The BPV of a ship is supposed to represent how valuable it is to its owners and its capability in combat. It can do much more than that.

The BPV system used in SFB is based on how a ship can be expected to perform in combat (since that is, in the end, the basis of the game). Even that, however, is difficult.

Anyone can create an equation that would calculate the BPV of a ship. The problem is that there is no way to know if you have created the "right" formula, except by playtesting. In an extreme case, a formula that gave more points for drone racks than for phasers would give the Kzintis higher scores than the Federation. Playtesting says it is not so.

It is not that difficult to rate the comparative effectiveness of the phaser-1 and phaser-2, or the photon torpedo vs. the disruptor bolt. It would seem that the value of weapons can be calculated based on the amount of energy put in and the amount of damage they can put out. Unfortunately, it is not that simple.

What about drones, that cost no energy to launch, but have only a limited supply of ammunition? Their primary purpose is to force an opponent to maintain a higher speed and a greater distance, and to fire weapons at a target other than your own ship. Assigning a value to them requires a considerable amount of playtesting and evaluation. In the end, it comes down to judgment. What about plasma torpedoes, that have respectable "energy in/damage out" ratios, but have the severe tactical limitations of only being able to launch (at full strength) every third turn? What about short-range weapons, such as the infamous "gatling phaser" and the deadly "fusion beam?"

To the disappointment of everyone, I did not reveal the "secret" formula in *NEXUS #1* and have no plans to reveal it now. In the highly competitive game business, the formula stands as one safeguard to prevent "pirate" expansions from being accepted as "official." It is for this reason that all past (and future) requests to calculate the BPV for a player's private ship have been declined.

Even without exposing the formula, however, there are elements of it that you must learn in order to win consistently. The formula is based on point values for all systems boxes. Some of these, such as labs, are calculated on a sliding scale. One lab is better than none (at least because it will absorb a damage point), but eight are not much better than six.

The point values of weapons are adjusted for firing/launching arcs, especially the ability to fire forward (generally the best place to have the enemy). Shield ratings include not only size, but also balance. Klingon D6s and D7s lose a point or two because of those "glass" rear shields. Federation and Kzinti ships, with more balanced shields, gain a fraction.

Critical to the formula are the correction factors. A ship with less than half of its firepower able to fire forward takes a penalty (except in the case of tugs and cargo ships). All ships have an adjustment for unused energy while cruising at a speed of 10 and operating all weapons, shields, life support, and fire control. Excess energy can be used to overload weapons, use tractors or transporters, reinforce shields, perform high energy turns, speed up, etc. Another adjustment lumps together (multiplied by a factor) all "non-essential" systems, including hull, cargo, tractor, shuttle, and lab boxes; all "surplus" sensor, scanner, damage control, and excess damage; a portion of the power and

weapons boxes; and all but one of the bridge, transporter, and security boxes (even though all of these have already been counted).

Once the new formula was written, we ran out the values of all of the cruisers. These were then discussed and adjusted in terms of experience. The formula was revised, and after the cruisers were checked again, we ran out the destroyers and dreadnoughts. More refinements, and we finally had a workable formula. The formula (written in 1983) created ratings much higher (but proportionately similar). This change was made so that the "new" BPV values would be instantly recognizable as different from the ones in the pocket edition.

The process has some loopholes, however. It is possible to take 500 points worth of ships as three big ones or ten little ones, or some combination in between. Depending on the scenario situation and the tactics of the players, such a battle could be radically unbalanced. Players who select a fleet with an "average" distribution of types will not have any particular advantages or disadvantages, so we can say that those who form "unrealistic" fleet organizations pay the price.

The other loophole is caused by the geography. The Gorns are good against the Romulans and Federation; the Klingons are good against all of their neighbors. Playing ships from widely different areas against each other can create unusual circumstances. The Kzintis, once generally considered a less effective race, can be very difficult for the Gorns to handle. The Gorns do not have small "drone defense" weapons, cannot fire their heavy weapons as fast as the Kzintis, and are far less maneuverable. The forest of phaser-3s on a Kzinti ship can do much to lessen the effect of a plasma torpedo. Conversely, the plethora of wild weasels can make the Gorn hard to hit. It is even possible for these ships to fight for hours without damaging each other.

In the decade since the original formula, the concepts of "refits" and Commander's Option points were added to the game.

Working within the system, however, is the basis of a successful career as a captain. If the difference in BPVs represents your percentage edge in chances of success, you must work to "increase" your own BPV and to reduce your opponents. Of course, your rated BPV does not change; but it is calculated for average conditions. A good way to think about it is that you should mentally recalculate the BPV of both ships continuously throughout the scenario.

Kzinti and Hydran ships (armed with short-ranged weapons) are penalized by 8-15%. The Kzinti CS would be 129 if all of its battles were fought within two hexes of the enemy. If you have the skill to get (and stay) that close, you can defeat "bigger" ships.

The BPV of all ships includes their admin shuttles. If you can destroy them, you are, in effect, lowering the BPV of the enemy ship. The nine-point edge that a Federation CA has over a Kzinti CS can be eliminated if the Kzinti can destroy the enemy shuttles that provide rear arc drone protection.

The value of all weapons is adjusted for firing/launching arcs, with forward arcs rated higher. If the waist phaser-2s on the D7 could fire forward, the BPV of the ship would be 125. You can artificially increase your BPV (and chances of winning) if you make sure that those phasers get a firing opportunity every turn. This exposes the weaker flank shields, so skill counts (as it should). The value of plasma torpedoes can be reduced if you are ready to move when one is launched. Since they can be "held" to some extent, you may find yourself kept out of effective range by the "threat" of the weapon rather than its effect.

In that case, your opponent is playing the BPV game against YOU.
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Over its six years, *NEXUS* magazine published a total of 20 scenarios. None of these are presented in this publication because all of them are being (or have been) reformatted for use in other products. Rather than have no scenarios at all, we have created three entirely new scenarios based on the Klingon battlecruiser variants originally published in *NEXUS #2*. We do need playtest reports on these scenarios so that they can be completed and published in a future module.

(SP1701.0) CARRIER ESCORTS?

(Y166)   *by Steven P. Petrick, Texas*

The Klingon D6Y *Devastation* was operating on the Kzinti border as part of its fighter testing program. The squadron of Z-2 fighters had been launched on a distant raid against a small Kzinti listening post. The *Devastation* was waiting for the fighters to return, when it detected warp signatures of the type made by shuttles. The fighter group was not expected back so soon and was on radio silence. Too late a sensor officer noted that there were too many engine signatures. Kzinti fighters drove in.

The Kzintis were experimenting with new concepts as well. The fighters, launched from three different carriers, had been enroute to conduct a massed raid against a Klingon convoy. Their weaker sensor suites had detected the warp emissions of the *Devastation*, and believing it to be their goal, they had followed it. Seeing a Klingon cruiser, the Kzinti pilots continued in to attack this worthy opponent.

The *Devastation's* commander knew that he could escape the Kzinti fighters, but if he did so, it would virtually end the experiment. He had to maintain his position so that he could recover the Z-2s. A call for assistance was broadcast.

Close by, the convoy which was the original target of the Kzinti strike continued on its way. The convoy commander decided to send two of his escorting ships, a pair of E3Ds, to assist the *Devastation*. They became the first carrier escorts.

(SP1701.1) NUMBER OF PLAYERS: 2; the Kzinti player and the Klingon player.

(SP1701.2) INITIAL SET UP
KZINTI: 12x AAS fighters and 1x MRS from the CV *Sabre*.
　9x AAS fighters and 1x MRS from the CVL *Tempest*.
　6x AAS fighters from the CVE *Inferno*.
　All enter on Turn #1 from anywhere along the xx01 map edge; heading C, D, or E; speed MAX; WS–III.
KLINGON: D6Y *Devastation* in 2215, heading A, speed 5, WS–I.
　E3D *Akula* and E3D *Beluga* enter on Turn #3 20 hexes in direction D from the D6V; heading A, B, or F; speed max; WS–III.
　5x Z-2 fighters and 1x MRS enter anywhere along the xx01 map edge on Turn #7; heading C, D, or E; speed max; WS–III. See (SP1701.46) and (SP1701.47).

(SP1701.3) LENGTH OF SCENARIO: The scenario continues until all forces belonging to one side have been destroyed, captured, or have disengaged.

(SP1701.4) SPECIAL RULES
(SP1701.41) MAP: Use a floating map. The Kzinti units can only disengage in directions A, B, or F. The Klingon units can only disengage in directions C, D, or E. Units which disengage in unauthorized directions are considered destroyed.
(SP1701.42) SHUTTLES AND PFs: No shuttles or PFs have warp booster packs.

(SP1701.421) The *Devastation* has one MRS, but it is away on the strike mission with the Z-2s.
(SP1701.422) EW fighters are not available in this scenario. The MRS shuttles accompanying their respective fighter squadrons can function as EW fighters for that squadron. Note that there is no MRS for the fighters from the Kzinti CVE, and the Klingon MRS cannot support the D6Y because it is configured to support the Z-2s.
(SP1701.423) There are no PFs in this scenario.
(SP1701.43) COMMANDER'S OPTION ITEMS
(SP1701.431) The following ships have the following special equipment in lieu of purchasing Commander's Option Items: The *Devastation* has four T-bombs and dummies, and has been equipped with an MRS shuttle. There are no other non-drone Commander's Option Items available.
(SP1701.432) All drones are "slow," i.e., speed–8. Type-II and type-V drones (speed-12) are available. "Medium," i.e., speed-20 engines are available for purchase as special drones. See (SP1701.46) and (SP1701.47).

Each drone-armed ship in a non-historical scenario can purchase special drones up to the historical racial percentages as part of the Commander's Option Items. Note that (S3.2) allows drone ships extra points for this purpose.
(SP1701.44) REFITS: No units had been refitted at this time.
(SP1701.45) KLINGON FIGHTER RECOVERY: The *Devastation* must recover the fighters, but the fighters are returning from an extended strike. The Klingon fighters have enough remaining fuel and life-support to operate for four turns after reaching the at-start map. If they are not recovered by the end of that time (or sooner), the fighters will be lost. This will require keeping careful track of the exact location of the at start area of space as the ships and fighters maneuver. If the *Devastation* is able to move towards the direction from which the Klingon fighters will enter, the fighters will gain one turn for each eight hexes in direction A that the at-start map is shifted. Hexes lost by being forced in directions C, D, or E and not regained count against the time limit that the shuttles have remaining when they finally enter.
(SP1701.46) KLINGON SHUTTLES: The Klingon Z-2 fighters and MRS shuttle are returning from an extended strike. They raided an observation post (relatively) deep in Kzinti space.

Two of the fighters (Klingon player's choice) have one drone left. The Klingon determines the speed of these two drones by taking two Romulan, two Gorn, and two ISC plasma torpedoes and placing them in a cup and randomly drawing two counters. If a Romulan plasma is drawn, the drone is medium speed; if a Gorn plasma, the drone is moderate speed; if an ISC plasma, it is slow speed. The two drawn counters are placed face down on the table in full view of the Kzinti so that they may be checked at the end of the scenario. The other fighters have no drones. None of the fighters have pods.

Two of the fighters have sustained two points of damage, and one has taken three points. This damage is applied at the Klingon player's option and can be applied to the fighters which still have a drone. The MRS has two type-VIM drones, and none of its ADDs were used in the battle.

There is one Admin shuttle on the D6Y at start.
(SP1701.47) KZINTI SHUTTLE STORES: The Kzinti player treats each "squadron" as a separate entity to determine what drones can be purchased for it. None of the fighters have pods.
(SP1701.48) CHAFF: Note that at the time of this engagement, chaff is not available.

(SP1701.5) VICTORY CONDITIONS: To win, the Klingon player must recover at least three of his Z-2s (the MRS counts as a Z-2 for this purpose) and the *Devastation* must not be crippled; otherwise, he loses. The Kzintis win if the *Devastation* is crippled or destroyed; otherwise, the Kzintis lose.

(SP1701.6) VARIATIONS
(SP1701.61) Replace the *Devastation* with a Federation GSC, the E3Ds with two police cutters, and the Kzinti AAS fighters with three squadrons each of 10x Z-2 and an MRS.
(SP1701.62) Replace the *Devastation* with the convoy which was the original Kzinti target. This includes 2x F-L, 4x F-S, 2x E3D, and 1x G2. Use the Modified Victory Conditions.
(SP1701.63) For a smaller battle, delete the nine AAS from the Kzinti CVL, change the D6Y to an F5V (assume that three Z-2 fighters were lost in the raid), and only one E3D arrives to help. The F5V's ADD rack is loaded with type-VI drones, no ADDs.

(SP1701.7) BALANCE: To adjust balance:
(SP1701.71) Change one of the E3Ds to a G2 or E4.
(SP1701.72) Replace some of the AAS with AS.
(SP1701.73) Delete or add an MRS to the Kzinti forces.

(SP80.0) ATTACK!

(Y141)   *by Ardak Kumerian, Klinshai*

The Klingon cruiser *Attacker* was the testbed for phaser–1 technology. It was rushed to the Hydran front just in time for one of the last battles of the Third Klingon-Hydran War.

(SP80.1) NUMBER OF PLAYERS: 2; the Klingon player and the Hydran player.

(SP80.2) INITIAL SET UP
KLINGON: D7Z *Attacker* in 3605, heading E, speed 15.
HYDRAN: Lancer Destroyer *Idea* in 0525, heading B, speed 15. Both ships are at WS–III. Use Stinger–1 fighters.

(SP80.3) LENGTH OF SCENARIO: The scenario continues until one ship has been destroyed, captured, or disengaged.

(SP80.4) SPECIAL RULES
(SP80.41) MAP: Use a floating map. Klingon units can only disengage in direction B. Hydran units can only disengage in direction E. Units which disengage in unauthorized directions are considered destroyed.
(SP80.42) SHUTTLES AND PFs: No shuttles have warp booster packs. There are no PFs, EWFs, or MRS shuttles.
(SP80.43) COMMANDER'S OPTION ITEMS
  (SP80.431) Each ship can purchase additional or special equipment as Commander's Option Items (e.g., T-bombs, extra marines, etc.) up to 20% of its Combat BPV. See (S3.2) for details and exceptions. Note that whatever is spent here counts in the Modified Victory Conditions (S2.2) as victory points for the enemy.
  (SP80.432) All drones are "slow," i.e., speed–8. Type-II and type-V drones (speed 12) are available for purchase. The Klingon ship can purchase special drones up to the historical racial percentages.
(SP80.44) REFITS: Neither ship had any refits.

(SP80.5) VICTORY CONDITIONS: Use the Modified Victory Conditions (S2.201).

(SP80.6) VARIATIONS
(SP80.61) The Klingons later (Y143) sent the *Attacker* to the Kzinti frontier, where it provoked an incident with a Kzinti CS. Replace the Hydran ship with a Kzinti CS.
(SP80.62) Ironically, another modified D7, the D7Y *Hailstorm*, was also sent to the Hydran front (in Y175) for combat tests. Replace the D7Z with a D7Y, and modify the scenario for the date (medium-speed drones, Stinger-2 fighters, refits, etc.).

(SP80.63) Add a Hydran Hunter and Klingon F5. Place these consorts within two hexes of the original ship on each side.

(SP80.7) BALANCE: To adjust balance:
(SP80.71) Add a Hydran Hunter Frigate or a Klingon F5.
(SP80.72) Replace the Lancer with a Ranger, but delete several of the Ranger's fighters.

(SP222.0) ERADICATION

(Y162)   *by Stephen V Cole & Steven P Petrick, Texas*

The advent of Kzinti fighters in the Four Powers War encouraged the Klingons to build an experimental anti-fighter cruiser and test it in combat as part of a cruiser squadron.

(SP222.1) NUMBER OF PLAYERS: 2; the Klingon player and the Kzinti player.

(SP222.2) INITIAL SET UP
KLINGON: D7C *Doomslayer*, D7 *Devisor*, D6F *Eradicator*, within 2 hexes of 3726, heading A, speed max, WS–III.
KZINTI: CC *Zenith*, CS *Parsec*, and two FFS *FF67* and *FF72*, within 2 hexes of 0303, heading D, speed max, WS–III. There are four AS fighters replacing admin shuttles on various Kzinti ships.

(SP222.3) LENGTH OF SCENARIO: The scenario continues until all forces belonging to one side have been destroyed, captured, or have disengaged.

(SP222.4) SPECIAL RULES
(SP222.41) MAP: Use a floating map. The Klingon units can only disengage in direction D. The Kzinti units can only disengage in direction A. Units which disengage in unauthorized directions are considered destroyed.
(SP222.42) SHUTTLES AND PFs: No shuttles have warp booster packs. There are no PFs.
  (SP222.421) If using the optional MRS shuttles, the two CCs each have one MRS.
  (SP222.422) There are no EW fighters in this time period.
(SP222.43) COMMANDER'S OPTION ITEMS
  (SP222.431) Each ship can purchase additional or special equipment as Commander's Option Items (e.g., T-bombs, extra marines, etc.) up to 20% of its Combat BPV. See (S3.2) for details and exceptions. Note that whatever is spent here counts in the Standard Victory Conditions (S2.2) as victory points for the enemy.
  (SP222.432) All drones are "slow," i.e., speed–8. Type-II and type-V drones (speed 12) are available for purchase. Each drone-armed ship can purchase special drones up to the historical racial percentages as part of the Commander's Option Items. Note that (S3.2) allows drone ships extra points for this purpose.
(SP222.44) REFITS: None of the ships had any refits.

(SP222.5) VICTORY CONDITIONS: Standard (S2.20).

(SP222.6) VARIATIONS
(SP222.61) Replace the Kzintis with a Hydran Ranger and Lancer with their normal complement of Stinger-1 fighters.
(SP222.62) For a smaller battle, delete the D7 and CS.

(SP222.7) BALANCE: To adjust balance:
(SP222.71) Change the CS to a BC, or the D7 to a D6.
(SP222.72) Replace one Kzinti FF with a CL.
(SP222.73) Delete or add a fighter to the Kzinti force.

TERM PAPERS

Term papers (short tactics articles written by players) began in *NEXUS #7* and continued through the final issue before being switched over to Captain's Log. In reprinting those classic papers in this issue of Captain's Log, we have eliminated those out of date, updated the rest, and have sorted them by subject.

GENERAL COMBAT

MORE EFFECTIVE DAMAGE — *Commander Walter Mizia*

Internal damage is hard enough to come by. You must make the most of it. The most effective tactic is to wait until an enemy ship has moved (meaning it won't be able to move, and hence turn, for several impulses), then hit it with just enough firepower to destroy its facing shield and score ONLY about 10 internals. (This is contrary to the conventional wisdom, which is to fire everything in one massive salvo.) Then, on each of the following impulses, fire enough weapons to score about 10 more internals. This will give you a round of damage on each of several impulses, but each round will be concentrated in the "A" column of the DAC, which has 28% weapons hits, 22% power hits, and 6% control hits.

You should get about three weapon hits per impulse, which in three or four impulses should eliminate that enemy ship as an effective fighting unit. Forty internal hits in a single volley would yield only five or six weapon hits, leaving the victim in worse shape but still able to bite back.

This paper, from NEXUS #7, was perhaps the most significant term paper of all time. The promotion system was different then, and Mizia was (deservedly) promoted immediately to the rank of full commander.

FINESSING THE RANGE — *Cadet Scott Donalson*

Careful study of the range tables for your ship and your opponent will always reveal some ranges where your fire is superior. The problem is to keep the enemy at precisely that range. This problem evaporates when the enemy is a base.

The heavy phaser-4 weapons on bases are devastating at close range, but from 26-40 they have only a 50% chance of a hit and will score only 1–3 points if they do hit. (A "statistical output" of "1," the term statistical output meaning the average number of damage points that weapon will deliver over a number of turns.) One weapon has a better output than this.

The proximity photon torpedo has a 50% chance of a hit from 26-30, and a hit will score 4 points of damage. This is a statistical output of only one point per turn, but the output on firing turns is twice that of the phaser-4. Of course, the photon can only fire every second turn, so you will have to go on EM and use heavy ECM to avoid fire during the alternate turns.

Other weapons have worse return rates than proximity photons. The disruptor, with DERFACS, has a rating of 1 point per turn at that range, a dead-even trade with the base most ships can't stand. The hellbore rates 0.55 points per turn and spreads out its damage over several shields. Type-R plasma torpedoes rate 3.33 but can be countered by phasers.

The proximity photon is the ultimate long-range weapon in this case; use it wisely.

DROPPING CRIPPLES — *Admiral C H Graeme Cree, Retired, USS Texas*

If one ship in your fleet is crippled, it becomes a ticking time bomb as the enemy tries to destroy it. The best solution is to drop the warp engines. This gives the ship a chance to disengage by sublight. It also lowers the cloaking cost.

COUNTERING THE MIZIA CONCEPT — *Cadet Jim Steward, USS Nova Scotia*

In order to offset the Mizia Concept of repeated volleys to produce more A-row hits, fire a mini-volley from your own weapons whenever you expect internal damage. This should include one "torpedo," two phasers, and one "drone." This will give you an already-fired weapon to score the hit against. Repeat the process whenever you actually receive damage. While you still get the damage, you don't lose the firepower.

Remember to keep the "best weapon" rules in mind.

SAND IN THE PAPERWORK — *Commander Walter Mizia*

Throw sand in the enemy's war machine. Complicate his maneuvers by picking key ships to cripple and slow down. Reducing the speed of an escort, for example, will force an entire carrier group to slow down to match it. Crippled units can be as good as kills if they are so much trouble (and so little use) that the enemy pulls them out of the battle line.

BASIC TACTICS: ALLOCATING PHASER ENERGY

When allocating energy to phasers, the first step is to make a judgment about how many of your phasers will actually get a chance to fire. For example, a Klingon D7 in a head-on single engagement will definitely have a chance to fire the five forward phasers. But note the two pairs of waist phasers, which fire in arcs to either side and rear. If you plan to turn to one side, the waist phasers on that side will have a shot, so you should have power for them. But the phasers on the other side probably won't have a shot unless he has the speed to run past you.

You may find it desirable to charge them anyway. The unused power will carry over, and you may be better able to spare it this turn than next.

We were just starting on Term Papers in NEXUS #8, and Steve Cole had to write "basic tactics" notes to prime the pump.

BASIC TACTICS: HELLBORES

In single-ship engagements, hellbores tend to be highly over-rated. While they have good damage output, they take time to recycle and damage all of the shields a little bit instead of damaging the facing shield a lot, requiring you to probably fire some as direct-fire hellbores in order to create a weak shield to exploit later. In fleet actions, however, hellbores tend to mop up an enemy fleet — if properly employed in a fire-support role. Delay hellbore fire until some other weapons have fired. What you are looking for is an enemy ship with a damaged shield facing one of your other ships with unfired weapons. (Such a situation can, obviously, be arranged.) Fire the hellbores at that ship since most of their damage will be concentrated on the shield facing your other ship. Teamwork and cooperation will usually spell success.

ADVANCED HELLBORE TACTICS — *Cadet Keith Aguirre*

If the enemy ship has equal shields (or nearly so), fire all of your phasers at the facing shield first in an attempt to reduce it to below the strength of the other shields. Use suicide shuttles, fighters, mines, or anything else. In some (rare) cases, you might even drop your front shield to use transporter bombs. The whole key is to reduce the facing shield to the weakest one. Any other combination splits your fire across two or more shields and is counter-productive.

When fighting against a hellbore-armed ship, you must carefully consider which of your shields to reinforce. NEVER use selective reinforcement to make all of your shields equal since this just gives him the choice of which one to smash. Keeping five equal and the sixth the strongest and facing the hellbore ship is good so long as he cannot make that shield the weakest or get a shot at one of the other five shields.

THE DISRUPTOR ADVANTAGE — *Cadet Bill Barsh*

Many have sung the praises of the photon torpedo, but this acclaim is undeserved. The disruptor, used by three major races, two minor races, and the pirates, will always be a superior weapon. To be sure, a statistical analysis of damage scored versus energy expended will show the two weapons to be generally equal, but the superiority of the disruptor is the tactical edge provided by a weapon that can fire every turn. This means that you don't have to think (or guess) two turns ahead. If you don't think you'll get a shot this turn, don't arm them; the energy will be useful for other things.

DISRUPTOR ADVANTAGE — *Cadet Jay Clendenny*

In the traditional debate between photons and disruptors, it is not enough to examine them at point-blank overloaded range. The disruptor actually has a better chance (than a photon) of getting a hit at ranges of 5–8 and 13–15. In a heavy ECM environment, this advantage can be more pronounced and the availability of UIM can become critical.

THE MOST POWERFUL WEAPON?
— *Cadet Wayne A. Stollings*

The stasis field generator can be the most powerful weapon in the game, even in a one-on-one duel. You must move within range of the SFG at the end of a turn. On the next turn, arm the SFG and all of your weapons. By firing (especially if he fires back) and then freezing him, you will prevent him from reloading while you have an entire turn to do so. On the next turn, drop the SFG and let him have it! That's what makes the B10 so powerful, not its weapons, its dual SFGs!

Possible counter-tactics: Retrograde to avoid range of SFG. Take advantage of limited forward phaser power. Commando raids against generator.

NOTES ON THE HELLBORE — *Cadet Steven Wheeler*

The hellbore is good for long-range combat, being effective to a range of 15.

Hellbores should be fired in cycles of 2/2 (two on one turn and two on the next) or 3/1 to take advantage of every opportunity.

Fire a few phasers just before the hellbore to eliminate any general reinforcement.

Fire them all on one turn. No guts, no glory!

BLOCKING HELLBORES
— *Ensign Stephen Armstrong, USS New Brunswick*

Lyran fleet commanders can use smaller ships to block hellbore attacks. A frigate near a valuable target can effectively protect it from hellbore fire by putting up an ESG wide enough to include it. The other side of the coin is that by announcing that an ESG is going up, the Hydran can be forced to fire his hellbores before the optimum position is reached.

FIRE EVERYTHING (ALMOST)
— *Ensign Barton Bolmen, USS California*

When firing a massive salvo at the enemy, consider retaining one or two phasers and two points of battery power. The phasers can be used for unexpected surprises (such as suicide shuttles), and the battery power can be used to block transporters or hasty tractor attempts.

PHOTON LOADING — *Cadet Richard Oros, USS Texas*

Federation players often forget that photons can be partially overloaded, and other players probably never knew in the first place. Partial overloading produces increased damage with the best use of available power, while confusing any enemy who is trying to reconstruct your energy plot.

HELLBORE TACTICS
— *Ensign Stephen Armstrong, USS New Brunswick*

Due to their nature, hellbores do not require the firing ship to achieve an optimal firing position or fire all weapons in a massive blast. If the target has a down shield, the hellbore will cause internal damage. Firing the hellbores one at a time will utilize the Mizia Concept to get more A-row hits to destroy weapons.

FUSION BEAMS — *Cadet Chris Ganiere, USS California*

While the fusion beam is often disparaged as an inefficient weapon, it has one key advantage. It causes no feedback at point-blank range, even when fired with a double overload.

Of course, the double overload causes damage to the firing ship without needing any feedback.

SHIELD TACTIC — *Cadet Keith Rogers, USS Maryland*

If one of your shields is reduced to one or two boxes, but not totally destroyed, it may be wise to drop the shield entirely. You will only receive one or two points of additional damage, but will be able to bring the shield up next turn and heavily reinforce it during Energy Allocation.

POETIC JUSTICE — *Ensign James L Butler, USS Louisiana*

When fighting the Lyrans, pay close attention to your formation. Have two or more ships hit a given ESG field on the same impulse to reduce the damage. Grab a crippled Lyran ship, and shove it into the ESG field of another Lyran ship. Try to compress the Lyran formation (possibly against a terrain feature) and force the spheres to run into each other.

If using (D22.0), try to damage a small ship and cause it to slow down so that another ship runs into it.

TACKLING Q-SHIPS — *Cadet Mike Lay, HMS England*

If you expect to find a Q-ship in the target convoy, take note of the operating race. With some exceptions, Q-ships come in two varieties: those with front-oriented weapons and those with rear-oriented weapons. This will give you the key as to which direction to attack from. It can also reveal the Q-ship for you as it turns to bring its weapons to bear.

Of course, if you unload your weapons on the first freighter to turn around, you may find out that your opponent also reads Term Papers and faked you out by ordering a standard freighter to reverse course. Or he could turn the whole convoy.

HELLBORE TACTIC — *Ensign Geof Mahl, USS Indiana*

At longer ranges it is important to score facing-shield damage, but your phaser–2s won't be able to do enough shield damage to make the facing shield the weakest one. It may be better to fire one or two of the hellbores in direct-fire mode to reduce that shield to the required level.

This works better in fleet actions where there are enough hellbores to waste a couple of them. If you can't reduce the shield enough to make this work, don't bother firing in direct mode. This can be countered with reserve power reinforcement and balancing the shields with (D17.71).

DISRUPTOR TACTICS
— *Lieutenant Tom Chartoff, USS New Jersey*

When short of power and faced with the choice of arming two disruptors or overloading one, arm two of them to standard loads because: 1) standard loads can be fired at longer ranges, 2) the chances of a complete miss are less, 3) they can fire at separate targets if required, 4) there is less chance that a weapon will be destroyed before it can fire, and 5) the Mizia Concept can be employed with two successive volleys.

This tactic applies to many other weapons as well.

STASIS TACTICS
— *Cadet William Hughes, USS Mississippi*

Freeze your selected target immediately after he makes a turn. That way, when he is released, he has no choice but to continue moving directly ahead into the nest of mines you have left for him. Select a release impulse when he has two or three impulses of movement coming up.

Talk about adding insult to injury!

USE EVERYTHING! — *Cadet David Custar, USS Oklahoma*

Deth O'Kay's adage "Use your tractors, dammit" doesn't go far enough. Not only should every system of the ship be utilized, but every characteristic must pay its way. For example, a SkyHawk can safely make its first HET while simultaneously performing erratic maneuvers. You paid for this ability when you bought the ship, so get some use out of it. Captains who get the most out of their ships tend to win more often.

Remember that we are discussing capabilities, not requirements. If you don't need to do an HET while doing EM, don't feel obligated.

KLINGON ARCS — *Cadet Troy Feickert, USS South Dakota*

The two most important weapon lines for Klingon ships are those formed by the FA/RX border. On E or F class ships, every weapon can fire along the two lines. On D class ships, every weapon except the opposite waist phasers can fire there. Maneuver so that the enemy must cross these lines, and fire for full-effect when he is in the proper position.

Do not always count on this as sometimes both ships will be called on to move on the same impulse, resulting in these lines being crossed. Experienced commanders might hold the waist or RX phasers for a follow-up Mizia attack if the enemy ship will not be able to turn the downed shield away.

LAUNCH SHUTTLES! — *Cadet Brian Nosser, USS California*

A heavy cruiser on the plasma side of the galaxy carries an average of four shuttles. While some must be kept for wild weasel duty, two are usually enough. The other two should not be allowed to sit idly in the bay. Use them as SPs or suicides or as escorts. The escort role is preferable because it allows them to be used every turn. Keep them behind you, and assign them to pick off approaching drones. If the enemy tries an overrun, his (down) #1 shield will be facing their phaser-3s, which together have the firepower of a photon torpedo.

There is a tactical penalty involved, in that you are stuck with slow-moving escorts, but it could be worth it in some cases. Feds, for example, can't go much faster when charging photons and could use the help.

COUNTERING KLINGONS
— *Ensign Richard Oros, USS Texas*

The basic Klingon tactic is to fire overloaded disruptors with UIMs at a range of 8 hexes, where he has an 83% chance of a hit (better than anyone else). From that point he can use his excellent turn modes to avoid the 4-hex "death zone" in front of a Federation ship. Federation (and other) captains need to plan counters for this standard opening attack.

One solution is to plot a speed increase that can unexpectedly close the range. Another is to fire on the Klingon's flank shields as he turns away. Yet another is to use normal loads on the photons, flying slow at first to confirm his belief in your overloads. You could have fighters and seeking weapons meet him at that point to force him to fire and turn away earlier or make him pay to get that close. Most importantly, study your own weapons. Firing four overloaded photons at range 8 and scoring two hits will do more damage than four overloaded disruptors.

LAUNCHING SUICIDES
— *Lieutenant Robert Eng, USS New York*

The best time to launch a suicide shuttle is when you have tractored the target. This will block a WW and slow him down.

Time your launch for just before the movement impulse for the speed you have selected. This will minimize the number of impulses that the shuttle is on the board and vulnerable to fire.

Launch a succession of suicide shuttles on alternating impulses (the maximum rate per bay). Set the earlier shuttles for a lower speed so that all will arrive at the target simultaneously.

Using a tractor is the standard "Gorn Anchor." If the suicide shuttles strike the same shield on different impulses, more of the target's weapons will be knocked out (via the Mizia Concept). Note that it is much cheaper (energy-wise) and is almost as effective to launch a standard shuttle and have it fire its phaser through a down shield, IF you can wait 1/4-turn.

RESERVE HULL
— *Lieutenant Tom Chartoff, USS New Jersey*

When flying a ship with a shuttle balcony that has lost some hull boxes, consider placing some of your shuttles (particularly any damaged ones) out on the balcony. These will then absorb hull hits and preserve more vital systems. Losing shuttles is better than losing power or weapons.

Considering the value of shuttles, and that each absorbs only one damage point, this is not a tactic to treat lightly. However, shuttles are usually destroyed quickly after the hull is gone. As warp is also vulnerable after hull is gone, this could be particularly useful for disengagement. Care must be taken in using this in a campaign as the shuttles will be destroyed by your own disengagement while on the balcony, if not by enemy fire, leaving you short of shuttles in the next battle.

FLEETS AND NEBULAS — *Admiral Frank Crull, USS Texas*

If you are defending a fixed position in a nebula that is about to be the subject of a fleet action, make the enemy come to you. Start your fleet in the same hex, performing warp and impulse TACs to keep your fleet together. Execute a speed change after the last random effect of the nebula to close up your formation. Since your opponent is trying to come to you at a speed higher than one, his formation will be scattered by the random movement and you can start picking off the ships that have wandered forward faster than the rest of the fleet.

Low speed is very risky against a plasma-armed enemy.

BALCONY BENEFITS
— *Lieutenant Robert Eng, USS New York*

The balcony and track landing system is great for confusing the enemy if you have an SP (which can be operated from it). Launch all of your shuttles at the same time, and he won't know which one to destroy. If he gets them all, at least fire is diverted. It also helps if you launch them just before an ESG hits; it will alleviate some damage to your shield, although you may lose all of your shuttles. This is a good way to use the scatter-pack shell game.

Placing all of your shuttles on your balcony in preparation to use this tactic does risk that they may be destroyed by internal damage prior to the point you desired to launch them.

ID THAT SHUTTLE! — *Ensign Mike Lay, HMS England*

A massed formation of approaching shuttles could include many scatter-packs and suicide shuttles. Labs are the traditional means to identify them, but here is another. Put power into ECCM (to gain a shift in your favor), then use Tactical Intelligence at range 4. With the ECCM shift, this will produce Level M information, revealing life forms. Those shuttles with crews on board could not be SP or suicide types.

While labs will give more information about a single shuttle, this procedure will select the SP and SS types from a horde of shuttles with a single effort and no die roll.

This is of limited use versus scatter-packs which will generally release outside of range 4.

FEDERATION SNIPERS
— Ensign Evelio Perez-Albuerne, USS Maryland

A Federation player should take advantage of one of his race's key advantages: photons only come in one flavor, and that flavor has a 30-hex range. Every race puts fewer weapons on smaller ships, but most races also give smaller ships weapons with shorter ranges. Note that disruptors lose range as you move down the fleet list, and that plasma frigates tend to be limited to the diminutive type–F.

But even the Federation's lowly frigate has the same range as the dreadnought. (So does the police ship!) This allows an entire Federation fleet to conduct a long-range barrage while a disruptor or plasma fleet must close the range before half of its weapons can reach the target.

This is why the Feds are masters of the Kaufman Retrograde. Tholians and Orions can also take advantage of this.

BLOCKING THE SFG   — Cadet Steven Petrick, USS Texas

The snare generator is an excellent method for saving a ship which has been placed in stasis. A supporting ship with snare generators can move between the SFG ship and its victim; firing the snare will block the stasis beam once the web solidifies. Care must be taken to ensure that the rescue ship is not caught by another SFG beam (place the web carefully, and track the SFG ship's energy to see if he can hold another target), and speed is needed to prevent the Klingons from closing the trap. This makes even a small Tholian ship a valuable addition to an allied fleet.

Rated the best term paper in NEXUS #18 and the paper most likely to make Tholian ships prime targets in an Alliance fleet. This was Steve Petrick's first paper.

USE THAT ATMOSPHERE!
— Fleet Captain Mark Schultz, IKV Wynslayer

When fighting near a planet, take advantage of its atmosphere. A ship can dive into the atmosphere to make itself harder to hit. When a ship is heavily damaged and close to destruction, it can dive into the atmosphere (or be shoved into it by a friendly tractor) to remove the effects of the explosion. If you can trick a seeking weapon into entering an atmosphere, it will slow down enough for you to escape.

Of course, don't do this to a FRIENDLY planet. Note that you must slow down to enter an atmosphere. Also note that a planet in a nebula creates an area where shuttles and fighters can operate.

KZINTI DEATH GRIP
— Ensign Rick Peterson, USS New York

The optimum range for Kzinti captains is zero or one hex. Launch enough drones to draw a weasel, then move in close while he cannot fire. Burn the weasel, and grab him with a tractor beam, turning a strong shield toward him. At point-blank range, your phaser-3s are most effective and his anti-drones are worthless. You can afford to bid more in a tractor auction because your drones are power-free and your phaser-3s take only 1/2 point of power. (At that range, two points of power will produce more damage through four phaser-3s than through one disruptor.)

If you hug a Kzinti, you'll end up with scratches. This is the Gorn Anchor in a fur coat.

BASIC TACTICS: TRANSPORTERS

When expecting a face-to-face meeting with an enemy ship, have energy allocated to the transporters. When he politely lowers your shield for you, use the transporters to drop T-bombs or send boarding parties onto his ship (which should also have a shield down from your own fire). The availability of reserve power to reestablish general reinforcement can save you some nasty hand-to-claw combat.

ANDROMEDAN TACTICS

AGAINST DISPLACEMENT
— Cadet Robert Eng, USS America

The key to dueling an Andromedan ship is to get him to use his displacement device and then to attack him immediately (since he can't displace again for another 32 impulses). This can be done in several ways, perhaps with a volley of PPTs.

ANDROMEDANS: CONSERVE YOUR POWER
—Ensign Anthony Medici, USS New Jersey

Whenever someone mentions the word "Andromedan," your mind fills with visions of speed 20+ with EM, EW of 6, and impossible tractor auctions. This is typically the way an Andromedan comes into battle when at WS-III, but as the battle progresses, they become slower and slower. To prevent this energy lag, here are a few tips that can save your ship in a lengthy battle. Always start with your panels at standard levels. You can reinforce them with reserve power after the damage is scored but before it is resolved. Never allocate power to EW. Use your batteries to put up EW so that you are always countering your opponent's. Fire your phaser-2s as phaser-3s if you don't need to do maximum damage. Always recharge your batteries every turn with ALL the excess warp power you have just in case you need it. You will find that most of the time you won't have to waste power because your ship is never hit, and in these cases you will be glad you conserved power.

ANDROMEDANS: BURNING EXTRA POWER
— Lieutenant Anthony Medici, USS New Jersey

The best way of reducing the power in your batteries during the turn is by the use of reserve warp power. By using battery power to run your ship and channelling all unused warp power (everything except movement) into your batteries, you create a massive store of reserve warp power. If you then need to reduce the power levels of your batteries, you have more options than if it were non-warp power. You can start erratic maneuvers, perform a high energy turn, or (if you really need to drain power) initiate an unplotted acceleration (which costs twice as much as a plotted one). Of course, if you don't need to use the power, you'll have it available next turn.

Rated the best term paper in NEXUS #17.

CLOAKS

DISRUPTING THE CLOAK   — Cadet Lyndon Nash

No weapon is quite so suitable for hunting a cloaked ship as the disruptor. This is because the hit probabilities remain high out to as much as 15 hexes, and they use true range to determine the effect of any hits. This dramatically reduces the effect of the cloak. Disruptors can be fired once per turn, and their overloaded strength is considerable as a true range of 1 becomes an effective range of 6, still within a 1–5 hit probability with the UIM if a lock-on is retained to the cloaked unit. Perhaps this is why the Romulans leave the Tholians alone and willingly accepted an alliance with the Klingons?

UNVEILING THE CLOAK
— Cadet Eric Pinnell, USS Quebec

While it is traditional to place transporter bombs near a cloaked ship in an attempt to expose it, the cloaked ship often proves reluctant to oblige. One solution is to place the bombs and then detonate them with shuttles, drones, or your own ship, exposing any cloaked ship within a seven-hex area.

Detonating mines with your own ship must surely be a desperation tactic.

DRONES

ANTI-MINE DRONE TACTICS
— Cadet Dimitri Arbatrov, USS Rosiya

If you are withdrawing from the enemy and pursued by drones, drop a shield facing in the opposite direction and place transporter bombs in the hex ahead of your ship. The mines won't arm until you are past them, but will explode when the drones go by, destroying them. You can, of course, lay mines without dropping a shield (by rolling them out the shuttle hatch), but this won't let you drop enough mines to do the job. Remember where you dropped the mines, and lead the drones over them.

If you're in an asteroid zone and don't want to drop your #1 shield, drop the #6 shield, deposit the mines ahead and to the left, then turn or sideslip left after you pass them. This will draw the drones over the mine.

If drones are approaching from several directions, you will have to act immediately since waiting even a few impulses could be fatal. The general idea is to move to one flank so that, eventually, all of the drones will be behind you and vulnerable to mines. This works well if you have drones approaching from, say, directions 3, 4, and 5. If drones are also approaching from direction 2, move toward direction 6. If you're surrounded by drones, turn directly toward the smallest group and plow through with your weapons and shields.

DRONES AND THE ESG
— Cadet Robert A. Frye

While the ESG is an excellent defense against drones, its unique nature requires a four-impulse lapse between activation and effect. If a unit armed with fast drones can close to four hexes (a position, you will note, that is beyond the effective range of most of the Lyran's weapons), the drones will hit before the ESG becomes active. Knowledge of this could influence him to release the ESG before he wants to, and you will save your drones for later.

This would also be effective with captor mines set for a range of four hexes! Any Lyran who falls for this twice deserves to become a rug in some Hydran's living room. The obvious counter-tactic is to let phaser-3s kill the drones and then ram the enemy ship. Another option is to fire at the enemy ship, then HET to allow time for the ESGs to come up.

BETTER THAN ANTI-DRONES
— Cadet Jim Weisser

Since ADD launchers can launch dogfight drones (E5.4), it would be better to forget the anti-drones and load the real thing! While anti-drones can be fired faster and cannot be intercepted, they have only a 67% chance of a hit and are most likely to fail when most needed. Type-VI drones will also kill any drone, and their slower rate of launch is unimportant because the ADD will need two or more shots to guarantee a single kill. The drones are also much more useful against fighters and can damage ESG fields whereas ADDs cannot.

Controversial strategy. Against massed drones, ADDs might be better. Also, fighters can dodge type-VI drones with chaff or kill them with phasers.

DOGFIGHT DRONES
— Cadet Jim Amidon, USS North Carolina

While dogfight drones will cause little damage to a ship, waves of them can cripple it. These drones are easy to launch from a variety of platforms (MW drones, scatter-packs, fighters, E-racks), cannot be distracted by a wild weasel, and are murder on an ESG field.

The key is in the release point as the drones have limited range. Also note the range at which dogfight drones can find their own target.

BEST DRONE DEFENSE?
— Ensign Robert A Frye, USS North Carolina

The best defense against drones is a type-IVMW drone. It can destroy five approaching drones; takes only one launching from the drone rack; can release its submunitions quickly; and is far more efficient that wild weasels, anti-drones, or phasers.

This only works if you happen to have type-IVMWs in a rack that hasn't launched. Of course, you can try to arrange that happy circumstance.

PHASER-3s vs DRONES
— Cadet Robert Tweedy, USS Montana

When defending against drones, fire one phaser-3 at range 2. This gives a 50% chance of killing a type-I drone outright and still leaves you time (if you aren't closing on the drone) to fire a second phaser-3 for a guaranteed kill. This is more efficient than firing both phasers at the last instant; you might need the other phaser later.

Make sure you ID the drone you intend to use this on, as it might be an armored type-IV or even a swordfish.

KLINGON DRONE RACKS
— Cadet Jeffrey J Hodak, USS Ohio

When commanding an unrefitted Klingon ship (D6/7, F5L, or C8/9), empty one drone rack right away. This won't reduce the rate of launch (which is one per two racks), but will provide a "free" drone hit on an empty rack.

CLEAR YOUR FIRE LANES
— Ensign David Emami, USS California

When launching drones at the enemy, take care that they do not pass by a small ship in your own formation. If too many drones are near one of your escorts, the enemy will concentrate fire to destroy the ship and the nearby drones.

Your escorts will appreciate your shrewd tactical skill.

THE ADD-VOCATE
— Cadet Geof Mahl, USS Indiana

Anti-drones are very useful items, particularly the advanced 12-round weapons. Consider their advantages:

• They can engage drones at ranges where phaser-2s or 3s cannot guarantee a kill, and without using any power.
• They are always ready to fire without arming or energizing.
• They can destroy large drones, or even armored drones, just as easily as standard drones, while other weapons require more damage.
• They can engage fighters, SPs, and suicide shuttles effectively.

I-D THOSE DRONES!
— Lieutenant Leland Tankersley, USS Maryland

When attacked by fighters that carry both standard and dogfight drones, be sure to identify incoming attacks. Your opponent may have launched the ineffective dogfight drones to confuse your defenses.

The first thing a captain learns is to use every system on the ship.

HEAVY DRONES — *Cadet Warren Okuma, IJS Okinawa*

Type–IV drones should figure prominently in the plans of all drone-armed ships. They cannot be stopped by a single phaser-2, and even a phaser-1 has only a 33% chance. Since launching rates are limited by number, not size, slower launching ships in particular should use this weapon.

Avoid this tactic when the enemy has plenty of ADDs.

**DRONES THAT HIT**   — *Ensign Geof Mahl, USS Indiana*

The drone construction rules allow you to tailor drones with a greater chance of a hit against any enemy. Against phaser defenses, use two-space drones with a half-space armor module. This has the same chance of survival against two phaser-3s that two type-I drones have, but does 50% more damage. A two-space drone with a full armor module has a 42% chance of surviving two phaser-1s at the most common defensive ranges. The kinetic-energy anti-drones destroy all drones equally, regardless of size or armor, so when faced with an enemy well-equipped with such weapons, larger numbers of cheaper drones are better.

SWORDFISH FIGHTERS

— *Cadet Ashton Vaughs, USS America*

Non-carrier ships can use swordfish drones as one-way fighters. Launch the drones, then race ahead of them and attack. Use a scatter-pack to increase your drone swarm. Time your attack so that the swordfish drones come in range to fire (3 hexes minimum) at the same time (or shortly after) you fire your weapons. They'll provide additional internals treated as a separate volley if fired on a different impulse. Be sure to have them fire at a range of 3 hexes because they can be destroyed at close range.

Swordfish drones are expensive and rare, but this is a good way to use them. Against ph-3s, set them for range 2. Note that only ships with double drone control can effectively use separate drones AND a scatter-pack. Of course, in squadron or fleet actions, other ships can assist in controlling the additional weapons.
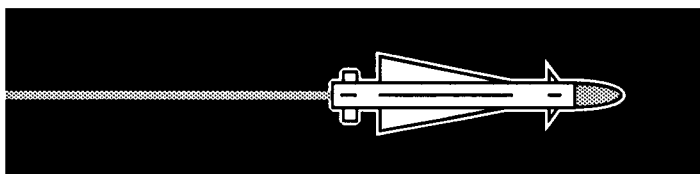
SLOW DRONES: The concept of buying slower drones in a fast-drone period remains hotly debated among the staff even today, even though the rules don't technically allow it except during transition years. The matter is under review. The following papers assume that slow drones are available.

TIMING PATTERNS   — *Cadet Bruce Burdick*

When launching drones at a target from a fairly constant range, use a mixture of medium and fast types. Launch the medium speed drones on one turn, and the fast drones on the next, ensuring that both waves will arrive at more or less the same time, overwhelming the defenses.

DRONES VS WEB

— *Cadet Michael West, USS Pennsylvania*

When fighting Tholians, save your money and use only medium-speed drones. Fast drones are immediately destroyed when they impact strong webs, while medium-speed drones can survive the shock and force the Tholians to keep the web strength high enough to stop them.

Also note that long-range drones are required when fighting against web casters to avoid the drones running out of fuel.

SLOW DRONES— *Admiral Graeme Cree, Retired, USS Texas*

While slow drones are usually scorned by players, they are inexpensive and, in some cases, are equally useful as fast drones. These cases primarily involve attacking slow moving or stationary targets, and for defense. Consider, a slow drone will destroy an approaching fast drone just as effectively as a fast drone, but costs less. A wall of slow drones can cover your retreat or prevent a pirate from approaching a convoy.

SWORDTHRUST   — *Ensign Robert Tweedy, USS Montana*

Launch swordfish drones to follow your waves of standard drones. These can even be on slower frames if timed correctly. The swordfish should be timed to fire its phaser at the target on the same impulse that the standard drones strike its shields. The phaser shot will hit a down shield before the ship can turn.

This is the Mizia Concept applied to drones. It would be cheaper to have a second standard drone follow close enough to hit the same shield during the next impulse if you can arrange it. The swordfish system is more expensive, but has a better chance of success. The concept is a modified version of standard drone tactics, where the ship (and its phasers) follow the drones.

ENERGY MANAGEMENT

READING THE ENEMY
— *Ensign Jim Steward, USS Nova Scotia*

Knowing what the enemy is planning can win the game. As energy allocation is the heart of SFB, knowing what his energy was used for tells you what he is planning, or at least what his options are. The classic example is an unrefitted Federation cruiser that cannot exceed a speed of 23 when loading photons. Take an extra Energy Allocation Form and try to reconstruct what your opponent is doing. Use all of the information you have (his speed, ECM, weapons fire, etc.), and then figure out what power is left. Knowing how much power you can't track down is the next best thing to knowing what it was used for.

Ace players report that this is the secret of their victories. Some have written computer programs to help. Note, however, that using mid-turn speed changes greatly complicates the process.

Rates the best term paper in NEXUS #13.

CHARGE IT!   — *Cadet John Casey, USS New Hampshire*

After taking some damage, you may not have enough power to charge all of your weapons. In that case, give priority to the phasers because:

They have the best power to damage ratio.

They are the least affected by ECM.

Any phaser can draw power from the capacitor grid.

They can be fired immediately.

They can always be held.

At long range, you may want to give priority to some heavier weapons, but if you are damaged severely, you'll be putting the power into disengagement.

Remember that phasers are damaged more often on the DAC, so you might consider leaving a few uncharged spaces in the capacitor system if you do not intend to fire immediately.

DON'T WASTE ENERGY
— *Cadet Chris Lawrence, USS Maryland*

When allocating energy for multi-turn weapons, study the situation. If you are likely to take internal damage before you can fire those weapons, leave one uncharged to absorb the inevitable A-row hit, and use the energy saved to reinforce the shields and reduce other internal damage.

ACTING ON IMPULSE
— Cadet Howard Anderson, USS Rhode Island

Small ships should never use impulse power for movement. With movement rates of 1/5 to 1/2, it would be better to use a fraction of a point of warp power, using the whole point of impulse power to fire a phaser or recharge a battery.

EFFECTIVE FIREPOWER
— Lieutenant Jim Steward, USS Nova Scotia

When power is in short supply, consider skipping some of your heavy weapons. These are not as efficient in damage production as phasers. Most have a hit-or-miss probability, where phasers will usually score some damage. This effect makes heavy weapons much more vulnerable to electronic warfare.

This concept is particularly useful for power-starved Lyrans. However, it doesn't work very well at longer ranges where the heavy weapons have a greater chance of scoring damage than the phasers.

POWER PRESERVER
— Cadet Marcus A. McCreless, USS Alabama

Have you ever found yourself the victim of deceleration due to damage? Next time when you anticipate an impending close-range overload battle run, PLOT mid-turn speed change decelerations. Afford yourself just enough power and speed early in the turn to get to the expected intercept point, and use the power you save by plotting decelerations to reinforce shields, add ECM, overload weapons, etc. After all, if he hits you hard, you will fly away from the exchange slowly anyway. Use your warp power BEFORE you lose it!

This tactic will also lead him to believe that you are spending more power for movement than you really are, deceiving him about where your power is really going. The tactic is a rare combination of practicality and deception.

*Rated the best term paper in NEXUS #16.*

BATTERIES ON A BUDGET
— Admiral David Zimdars (Retired), USS Montana

Many players forget that their batteries can be charged with fractional points of power. This is especially useful with frigates and destroyers that commonly have a fractional point of warp power left over that is often wasted. This energy is better put into the batteries where it can be used as reserve power or to fully recharge your batteries over a number of turns.

BURNING HIS RESERVE
— Cadet Patrick Stapleton, USS Oklahoma

You plan to tractor your opponent in the next impulse, but are concerned about his reserve power. Fire a few weapons, even if you cannot penetrate his shields, to see if he will commit this reserve power to shield reinforcement. At worst, he will keep his reserve power but give up some permanent shield damage.
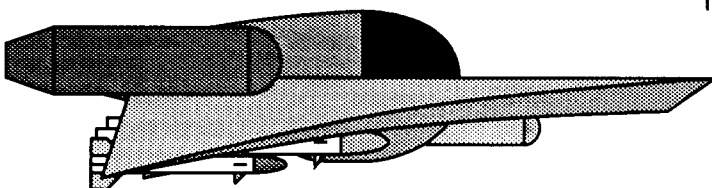
FEDERATION F–18 FIGHTER

FAST PATROL SHIPS

BUCCANEER OPTION MOUNTS
— Commodore Frank Crull, Texas

The best PF in the game is the Orion Buccaneer, simply because of its option mounts. The enemy never knows what you will be shooting at him.

In selecting option mounts for a flotilla, it is important to remember that not all of the PFs need to have the same weapons! Teamwork within the flotilla can spell victory, based on the proper selection of weapons.

For long-range firepower, photons are usually the best, although a PF intended for drone bombardment would likely need extra drone racks. For continuous firepower, nothing beats a phaser-1. For close work, the choice falls to gatlings or (rarely) fusion beams.

Attack in a wedge formation with the ships arranged in the order of the firepower — photon ships on the wings, phasers toward the middle. Such a formation is basically drone proof and concentrates its firepower at a point about two hexes ahead of the lead PFs.

POWER TO THE PFT
— Cadet John T McNally, USS New York

Do you hide your PFT in the rear of your fleet? Against drone-armed enemies, this ship belongs in the core of your forces, not hiding in the shadows. The six tractor beams can be very effective against drones, and the scout channels are very useful in defense.

This is a risky use of a critically important ship that is vulnerable to direct-fire weapons.

CENTURION TACTIC
— Cadet Ryland Leyton, USS New York

The PF flotilla in a Romulan fleet should be used carefully. In the first encounter, the PFs are highly vulnerable and will tend to be quick-kills at medium range. So keep them cloaked until the first shots are exchanged, then have them surface to pick off crippled ships or knock down a key shield of the surviving enemy dreadnought.

FIGHTERS

LAUNCH (ERRATIC) FIGHTERS!
— Cadet James Townsend, USS California

To prevent your fighters from being destroyed before they can fire their own weapons, try to launch them out of the effective range of the enemy. (Nine hexes should be adequate.) If this is impossible, have the fighters assume erratic maneuvering immediately and lend them all the ECM you can. If he pays the ECCM cost to hit them, he will have less power to use against your ships. After 1/4 turn, drop EM and fire.

HYDRAN FIGHTER TACTICS
— Cadet Evelio D Perez-Albuerne, USS Connecticut

When fighting Lyrans, keep your fighters in the same hex as the ship to distribute ESG damage over the maximum number of targets. A couple of Stinger-Hs can be worth their weight in gold. Consider holding an admin shuttle ahead of you in a tractor as a "bumper."

Against Klingons, spread your fighters out across three hexes to provide drone defense. Their flanking fire can keep a Klingon from turning away as they will slash his flank shields. The fighters can sideslip directly in front of you if the Klingon tries to overrun.

Massing fighters is always risky if the enemy has any T-bombs.

HYDRAN TACTICS 1
— Cadet Stephen Ainsworth, USS Michigan

Stingers should be led into combat, not followed. When facing the enemy, he will have to fire at your fighters at an ineffective range or trade salvos with your ship and then face the fighters with a down shield.

Excellent observation based on the relative weapons-to-damage ratio of all fighters, but particularly of Stingers.

HYDRAN TACTICS 2
— Rear Admiral Marc Spencer Cocherl, USS Korea

Stingers should follow hellbore-armed ships, but not into direct combat as they would a fusion-armed ship. At range 10, have the fighters fire their fusions at long range with double-loading. With six Stingers, this will score an average of 24 points, enough to eliminate reinforcement and part of the shield. Follow this with the ship's phasers and fusion beams, then use the hellbores (which are likely to be on another ship) on the now shattered front shield.

Fusions have the same hit chance at 10 hexes as they do at 3, and the Stingers get a small target bonus when fired at from that range.

FIGHTERS AND PFs— *Cadet John Peterson, USS New York*

Never mix fighters and PFs. The explosion of a single PF is enough to destroy or cripple every fighter in the same hex as the PF. Keep your own fighters away from enemy PFs. Use drones or sequential phaser attack runs.

ΜΛΠΕUVΕΛ

SPEED KILLS
— Commander Walter Mizia

You can gain a temporary advantage over your opponent by suddenly reducing speed during a battle. If you can carefully drive up the speed of the battle to 10, 15, and then 20, you can gain 16 very useful energy points for a movement cost one ship by suddenly dropping to a speed of 4. This power can be channeled into ECM, overloaded weapons, or shield reinforcement. If necessary, you could even grab him with a tractor beam to keep him within range. As he spends power trying to drag you across the board, you will spend power punching through his shields.

This sudden reduction in speed is most efficient when done during Energy Allocation, but may be a bigger surprise if done as a mid-turn speed change. Note that dropping to a speed of 4 from a speed of 20 would require three speed changes, and that the power gained will be less than the 16 mentioned above.

Preparation is critical. If you will need a high energy turn to face the enemy, allocate for it. If you'll have to drop a WW, have one ready. Admin shuttles could be dropped to increase short-range firepower and divert his attention.

A major drawback to this tactic is that it leaves you at a very slow speed with considerable tactical disadvantages. You must reduce the enemy's capabilities enough to overcome this temporary disadvantage.

DIVIDE AND BE CONQUERED
— Cadet David Emami, USS California

The traditional ground combat pincer attack is suicide in SFB. Dividing your fleet to surround the enemy allows him to attack and destroy part of your fleet before you can get the other wing into attack range.

There are exceptions, such as fighting a Klingon with weak rear shields or when armed with drones. Also, a PF flotilla operating behind the enemy can cause no end of mayhem.

THE D7H RETROGRADE OVERRUN
— Cadet John Byrne

When flying the D7H *Anarchist* (a captured Klingon D7 modified with Hydran weaponry), the less than obvious tactic is to overrun the enemy while flying backwards. In this way, the ship can fire two phaser-Gs and five phaser-1/2s at the enemy, and then (after completing the overrun) fire four overloaded hellbores. The hellbores will, of course, deposit most of their energy on the down enemy shield. The fusion beams might be fired at the facing shield after the overrun and, if overloaded, might down another shield to be exploited, especially if the boom phasers are held for this purpose rather than fired as part of the overrun. This requires reinforcing the rear shield.

EMERGENCY DECELERATION THE HARD WAY
— Cadet Bill Barsh

The traditional Federation tactic is to run down the Klingon with overloaded photons and blast him. This gives the Klingons a chance for simultaneous fire, although with skill you can fire at range 4 and then turn away before he can close to range 2 or less. At range 4 a Klingon can't penetrate your shields. The trick is keeping him there.

The subtle rules change of using Deceleration due to Damage (D22.0) drastically favors your tactics. Close to range 4 (head-on is acceptable) and blast him. Then use an HET to keep the range open. With the damage he will suffer from overloaded photons, he will have no choice but to slow down. You can then poke at his down shield with phasers (one per impulse) to destroy the rest of his weapons with A-row hits. By the end of the turn, he will be finished!

Of course, if you break down, you're toast.

THE SURPRISE ACCELERATION
— Fleet Captain Mark Schultz, IKV Wynslayer

A devastating tactic is to plot a sudden increase in speed. This should be done when approaching the enemy and planned for just after the point when he is expected to fire. This will allow an unexpected overrun attack or a well-placed flank shot.

LOOKING OUT FOR NUMBER ONE
— Ensign Troy Hammerman, USS California

Ships without their front shields are limited in combat because they cannot approach the enemy directly and cannot bring their forward centerline firepower to bear. Rather than take all of the damage on the #1 shield, reinforce the #2 (or #6) shield and maneuver to take the initial salvo on that shield. This can be done by an oblique approach, or by sideslipping, or by turning at the appropriate moment and letting him hit you. Later in the scenario, it will be easier to fight without the #2 shield than the #1 shield.

THE LONG SHOT
— Ensign Rick Peterson, USS New York

If you won't be able to bring your Federation ship into main battle ranges, slam on the brakes (emergency decel) and fire your photons with proximity fuzes. The next turn (after the deceleration period), reverse and get out of range so that you won't be overrun while overloading. You might be able to start backing up sooner with reserve power if the deceleration period does not extend to the end of the current turn. If the enemy pursues, you can use the Kaufman retrograde or let him close into overload range. If he doesn't pursue, you can resume the process of trying to get in range for a shot.

Obviously, if a Federation ship empties his photon tubes, any enemy ship that survives should charge while he's reloading. This tactic will avoid the standard enemy reaction charge, but requires the arming to be decided at the start of the turn. The post-deceleration delay in the Captain's Edition needs to be carefully evaluated before using this tactic.

KLINGON TACTICS — *Ensign J Anthony Clem, USS Georgia*

In a D7 or D6, do not approach the enemy head on. Aim for a hex about 4 hexes to one side of him. This will put him on the key hex row between your LF and L (or RF and R) firing arcs at primary battle range. This row is the point where more of your weapons can bear than any other.
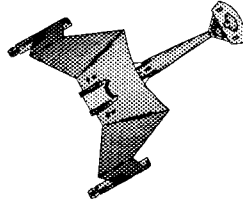
ADVICE TO NIMBLE SHIPS— *Cadet Tim Groh, USS Florida*

Move to just outside the enemy's effective firing range, and then use an HET to turn away. Thinking that this is the best shot he's going to get, most captains will fire at you immediately. If he does, use the second non-breakdown HET (1/4 turn later) to turn toward him (his weapons are now reloading) and blast him with overloads. If he doesn't, just keep going.

This requires a great deal of warp energy (two HETs) and will not leave much for other options. This plan works best for Orions who can double their engines and drone-armed ships that do not need a lot of energy for their main armament.

CHOOSING SPEED
— Fleet Captain Mark Schultz, IKV Wynslayer

When in doubt, go fast. This will give you more options to close with or avoid the enemy. A slow ship cannot fire first because it fears an overrun. A ship going significantly faster than its opponent controls the situation. If you are doing 24 or more, the enemy won't be enough faster to be dangerous and may be much slower.

If you need to use a WW, don't plot speed 4. This lets the enemy pick the range and shield. Instead, plot tactical maneuvers. This will allow you to turn a shield toward the enemy. Plot both warp and impulse tacs for maximum flexibility.

When going slow (below 16), always plot speed 16 for the final impulses. This allows the maximum flexibility in speed choice for the following turn. It also fouls up his guesses about your energy allocation. Note that your speed on the following turn will be limited to your slowest speed in the preceding 32 impulses, so the speed 16 at the end of a given turn simply allows you to accelerate to the maximum speed at the end of the following turn. This is why speed 16 is so important in preserving your tactical options.

KILLING ERRATIC SHIPS
— Cadet Simon Zwart, HNlMS Holland

Whenever a ship begins erratic maneuvering, immediately launch large numbers of drones at him. He is almost defenseless against them, as he cannot use tractors, T-bombs, or a WW, and his own weapons are less effective. He will have to drop out of EM or be destroyed.

HEAD-ON
— Cadet Jay Hypes, USS Virginia

Take note of the firing arcs of your weapons and those of your opponent. Coalition ships (Klingon, Lyran, Romulan) usually have FA firing arcs for their forward phasers and heavy weapons. Alliance ships (particularly the Gorns and Feds) tend to have only a few weapons able to fire across the entire FA arc, with most weapons firing LS or RS. Thus, their firepower is concentrated into a single hex row. Because of this, most Coalition ships should approach the enemy from an oblique angle, to stay out of this "row of death." Note that all ships have their own firing arcs, and examine those of your own ship to select the best approach.

See "The Oblique Attack" in the Tactics Manual.

MARINES

TARGETS FOR HIT AND RUN
— Lieutenant John Byrne, USS Michigan

The most obvious targets for hit-and-run raids are usually guarded. It then becomes necessary to select targets which are valuable, but not sufficiently obvious to have guards assigned. Raids on fighter bays (or some Klingon drone racks if there is an armed shuttle in the bay) can cause chain reactions. Ships with few labs can be blinded to critical information if those are lost. Ships with few hull boxes of one type (Federation rear hulls, Klingon forward hulls) can become vulnerable to damage deeper in the DAC if those boxes are lost. Such exotic raids can force him to deploy more marines to defensive assignments.

This can be done very effectively after internal damage has been scored, when there may be only one of a key system left and there has not been time to assign guards to it.

BOARDING TACTIC
— Ensign Patrick Stapleton, USS California

To secure an initial advantage when boarding an enemy ship, conduct several hit-and-run raids on the previous turn. Most players forget to post guards until forcibly reminded to do so, and he will probably post more guards than you lose in casualties. As guards cannot be used initially in combat, your boarding force can survive the crucial first turn after which you can reinforce them.

KEEPING KLINGONS INTACT
— Lieutenant Bill Blakely, USS Georgia

If you're beating a Klingon and concerned that he will try to escape with the boom, there are things you can do to stop it. Start hit-and-run raids as soon as a shield is down. The boom engines are probably guarded, but you'll have to try anyway to keep him honest. Beyond that, any boom boxes are worthwhile targets as this can get him below the minimum requirement.

Few Klingons guard the boom engines until they receive their first hit-and-run raid. Few forget thereafter.

HITTING HARDER
— Lieutenant Bill Blakely, USS Georgia

When using hit-and-run raids, target those systems which your opponent can least afford to lose but which are unlikely to be guarded. While heavy weapons and the bridge are favorites of attackers, they are favorite haunts of guards as well. Cloaking devices, shuttle bays (especially with armed fighters), batteries, and engines are tender spots. Ships with seeking weapons can ill-afford to lose sensors, and damage control is a good choice on any target. Unusual systems (e.g., SFGs) are prime targets.

H+R is a mental duel over guards and commandoes.

WEASEL HUNT
— Ensign Tom Chartoff, USS New Jersey

The best way to deal with wild weasels is to destroy them before they can launch. The best way to do this is to fly a shuttlecraft with boarding parties into his shuttle bay. After landing, the combat in the bay will destroy his shuttles. While this only works with a down shield, that can be arranged and because of this possibility is worth arranging.

This is impractical against a multi-bay ship, and less effective under the Captain's Edition rules, but still works.

HIT-AND-RUN TACTIC
— Cadet Jeffrey A Wong, USS California

The most effective hit-and-run attack (on a D5 or any ship with only one "6") is the sensor track. Destroying the "6" box means a chance that he won't have a lock-on during later turns.

A cheap kill. How many 6s does your ship have?

MINE WARFARE

LOOKING FOR MINES — *Ensign Bill Blakely, USS Georgia*

When you suspect a minefield is present and you aren't fighting for your life, use a wild weasel to hunt for it. Because an active WW is considered to be the same size as your ship, the mines will accept it as a target. It will, however, be an expensive way to clear a path. Survey ships (with plenty of shuttles) might be useful for such a mission.

While unlikely to happen in normal operations, this tactic can be used to escape when a minefield blocks your route. Be aware, however, that one or more mines might be set to trigger on the second target they detect.

SIFTING THE AVALANCHE
— *Admiral Alan Gopin, Retired, USS New Jersey*

When faced by enemy fighters armed with drones, using T-bombs is a standard defense. An interesting variation is to set the T-bombs for size-6 targets. The drones will pass through the barrier (other defenses must be arranged), encouraging the fighters to follow (to their doom).

This has to be done by dropping the mines out the shuttle bays, as the mine locations will be seen by the fighters if placed by transporter. There are also limited numbers of T-bombs available.

T-BOMB TACTIC — *Ensign Richard Oros, USS Texas*

If the enemy ship avoids your T-bombs by using emergency deceleration, simply set the bombs off yourself with a drone or shuttle. Planning for this, you set the bombs for any size class before placing them.

No decision needs more thought that the trigger size of a T-bomb.

MINESWEEPER RUSE — *Cadet C T Johnson, USS Midway*

When approaching an enemy fleet, send a squadron of war cruisers on a feint toward the enemy. What he won't notice is that one of the ships is a minesweeper leaving a belt of mines in its wake. This allows you to create your own terrain without his realizing it. A lone war cruiser sent on such a sweep will be tagged with TacIntel and identified as a minesweeper, but an entire squadron is unlikely to attract individual attention.

Players who go to the effort to check every approaching ship won't be fooled. But then, lazy captains usually lose. In fleet battles, assign a player as the "science officer" to take care of all IDs and TacIntel. This tactic is also very expensive as the mines on the minesweeper are not free and must be purchased. Loading a Federation NMS with T-bombs and/or NSMs would cost 128 BPV, plus 16 for the four T-bombs it can carry outside of its racks for a total of 144 BPV, or enough to buy another cruiser. You also can only lay one mine per rack per turn, which means it will take some time to build up a respectable minefield, and the constant crossing back and forth of your squadron is going to call attention to it.

DOUBLE YOUR BARRIER
— *Cadet Mark Kicmol, USS Pennsylvania*

When using T-bombs as a defense against drones, set some of them for size-6/7 targets and others for ships. Once the first set destroys the enemy drones, the enemy will assume that the way is clear for a direct attack and plow full-speed into the second set.

Mines placed by transporter are visible to your opponent (and mines dropped from the hatch may not be in the best place), and he is not likely to assume that undetonated mines are dummy mines as opposed to real T-bombs.

BARRIER DEFENSE — *Cadet Danny Indrigo, HMS Ontario*

When expecting a large wave of drones, most ships will place a barrier of T-bombs in their path. The counter-tactic is to have one or two drones move ahead of the pack to pre-detonate the mines. The counter-counter-tactic is to be sure to kill the lead drones before they detonate the mines.

You could use (M5.16) and set the mines to ignore the first target.

ALL OR NOTHING — *Ensign Graeme Bayless, USS California*

When defending with a minefield, deploy pairs of command-controlled explosive mines. Place these close together in an area you expect the enemy to move or where you will be able to draw your opponent. The concentrated blast of two mines will often be enough to destroy the front shields of most of the enemy fleet, allowing easy mop-up.

If your opponent doesn't fall into your trap, you'll be out the cost of the mines and have an uphill fight on your hands. All tactics are based on choices, and the choice here is to gamble between a quick victory and a less than even fight. Also, using your controlled mines in this manner denies their primary use in forming an access corridor for your own ships.

MINESWEEPING DRONES — *Cadet Cory Light, USS Texas*

When flying a drone user (especially a Kzinti), have a type-IV drone with 1.5 armor and 0.5 explosive modules. Have this drone lead your other drones by one or two hexes. It will go through one transporter bomb without being destroyed. Your enemy may even believe that it is a slug drone and ignore it, only to be surprised by six points of damage.

Two type–I drones launched in sequence might do just as well. Many players set their T–bombs for the 3rd or 4th target. This avoids being spoofed by single leaders but stops swarms.

PLASMA TORPEDOES

THE PLASMA-R GAMBIT
— *Cadet Leland Tankersley, USS Maryland*

On the third turn of arming a plasma-R torpedo, the enemy will probably try to avoid your FA launching arc. If you get him in your sights, use reserve power to complete the arming (you've been using rolling delay, of course) and launch. If not, continue the rolling delay and launch your pseudo-R "into space" on the last impulse (with a suitably disgusted expression). If he falls for the trick, your torpedo will be waiting for him.

Rated Best Term Paper in NEXUS #12. This was the first time that a paper was selected as "best of issue" and marked a formal change to a "grading jury" instead of just picking them.

DON'T KILL THAT PLASMA
— *Cadet David J Raymond, USS Illinois*

When firing phasers at a plasma torpedo, don't destroy it completely. Allow the vastly reduced plasma to strike one of your shields, thereby exposing it as a real or pseudo torpedo.

Your opponent, of course, could provide the final few points to kill the torpedo to avoid giving you the information.

PSEUDO-PLASMA GAMBIT
— *Cadet Erich Shanholtzer, USS Colorado*

In a fleet action, launch plasmas and PPTs at different ships. This will force both to use WWs and will divide enemy defensive fire. Shotguns can also be used for this purpose.

Faced with such an attack, the defender should arrange for one torpedo to reach its target several impulses before the other. If you guess right, the second ship can resume normal operations immediately.

PLASMA DUELS — *Ensign Michael West, USS Pennsylvania*

In a plasma duel, do not approach the enemy directly, but instead approach at a 60° angle, heading for a spot about four hexes in front of him. (Your ship in 1020-B, his in 1812-D.) This allows you to make one 60° turn away from him if he launches plasma or a 60° turn toward him if he launches a wild weasel.

EVADING PLASMAS — *Ensign Robert Eng, USS New York*

When running from a plasma torpedo, plot a high speed until you get out of the powerful short-range brackets, then slow down. This takes less power than moving at top speed the entire turn, and doesn't take you all the way across the map, giving him time to reload while you come back. Even if the torpedo does hit you, it will be weakened significantly and easy prey for your phasers, and you will know if it was a real one or not.

Rated the Best Term Paper in NEXUS 15.

FANTASTIC F — *Cadet Steve Smith, USS Florida*

Most modernized plasma cruisers have both F and S torps. Charge the target on the second turn of arming the S-torps and launch your F-torps. On the next turn your S-torps will be armed, and you won't have as far to go to run him down. In the meantime, the empty F-torp launchers will absorb hits and protect the S-torp launchers.

You'll need ECM and EM to pull off the closing maneuver. You can get the second salvo loaded in two turns if you fast-load the S.

SIDESWIPE — *Fleet Captain William Chitwood, USS Alabama*

When being chased by a plasma torpedo, let it run almost out of power (or phaser it down to the last couple of points) and then sideslip into it, allowing it to score a couple of damage points on a flank shield. This will reveal if it was a real or pseudo torp without doing any significant damage.

SCATTER-PACKS

SCATTER-PACK SURPRISE
— *Cadet Jonathan Clemens, USS Alaska*

When loading a scatter-pack, don't put six one-space drones in it. Instead, put in three one-space, one two-space (type–IV), and two half-space dogfight drones. Your opponent will see six drones and, assuming that they are all the same, will use his labs to identify other drones. In any case, it will complicate the defenses.

Soon to be a standard tactic — and no surprise.

SHATTER-PACK SHUTTLES
— *Ensign Leland Tankersley, USS Maryland*

A scatter-pack loaded with 12 dogfight drones can rid you of that pesky fighter squadron or drone swarm. Set the pack for random targeting of size class 6 and 7 targets. This will avoid wasting the small drones on enemy ships or, more importantly, on friendly ships.

The effectiveness of this tactic can be diluted if there are fewer than 12 targets and some targets are drones.

FIGHTER PACKS
— *Rear Admiral Mark S Cocherl, USS New Jersey*

At long range, carriers should use a couple of fighters as scatter-packs. Set them to release quickly. This will tremendously increase your seeking weapon launch capability; you can still recover the fighters by tractor and reload them before entering close combat. This saves your admin shuttles for WW duty.

SHUTTLE SHELL GAME
— *Cadet Tom Chartoff, USS New Jersey*

Scatter-packs are often destroyed before they can release. By using rule (FD7.45), you can create a pseudo-scatter-pack that takes no time or energy to prepare and, while it cannot launch drones, it cannot be distinguished from a real scatter-pack. Launching several pseudo-SPs forces your opponent to gamble or destroy all of them. This is very useful at WS-II since he knows you can only have one SP and will destroy the first shuttle he sees.

Rated the best term paper in NEXUS #14.

DOGFIGHT SCATTER-PACKS
— *Commodore Bill Heim, USS Maryland*

Load a scatter-pack shuttle with 12 dogfight drones set to launch at range 8, all targeted on the primary target ship. Once they launch, your target will be faced with a horde of small targets that individually aren't worth killing (they absorb more damage points than they cause) but which cannot be decoyed by a WW. He may even believe that they are targeted on his own shuttles or drones. Most will strike his ship, causing the equivalent damage of two normal drones. It's unlikely that two normal drones could have scored hits out of the six on a standard SP.

Of course, the SP itself can be decoyed if the WW is launched before it releases its drones.

NAILING SCATTER-PACKS
— *Cadet Eric Nussberger, USS Texas*

Scatter-packs are often launched at 9–15 hexes, outside of effective phaser-1 range. Destroying it would take six phaser-1s; you can't fire a few and judge the results after the 1/4 turn delay is past because of the "release when damaged" trigger setting. Disruptors, however, can be very effective. Two disruptors have a 67% chance of a kill; use a narrow salvo to avoid leaving a wounded SP that will release anyway. Remember that if the target is 12–15 hexes away, you'll need some ECCM to offset the small-target ECM bonus.

SCATTER-PACK TACTICS
— *Ensign Robert A Frye, USS North Carolina*

It is crucial that a scatter-pack be launched, and set to release, outside easy phaser range of the enemy. Shuttles within three hexes of an enemy are doomed, while those eight or more hexes away are usually ignored. But time the launch carefully. You will have a quarter turn before it releases. In that time, you must close with the enemy and exhaust or destroy his weapons with a close-range firefight. Then the drones will approach a defenseless ship. You must also start the attack early enough in the turn to avoid giving him time to reload the weapons.

FIGHTER PACKS AGAIN
— *Lieutenant Michael West, USS Pennsylvania*

If you have a carrier and need to get drones out quickly, launch three fighters as SPs set to move at a slower speed than the carrier. After eight impulses, all of the fighter's drones are launched. Then the carrier drops a rear shield and transports pilots onto the fighters (this is because transporters cost less power to use than tractors do). The fighters then return to the carrier to be rearmed. Note that they CANNOT fire any weapons! They MUST return to the carrier. Care must be taken to not exceed your drone control as the SP fighters and normal fighters may not control any of the drones. However, escort ships and two-seat fighters may pick up the slack. Incidentally, the most efficient way to perform this is with Federation F-15C fighters. (You only need two of these, not three).

WILD WEASELS

BASIC TACTICS: WILD WEASELS

When facing a ship with seeking weapons, always keep a WW warming up on the flight deck. Take a careful note, however, of how much he has launched. If he has launched all the seeking weapons he can this turn, release it. Otherwise, do some thinking first.

The obvious solution to a WW is to destroy it with phasers as soon as it appears. The idiot weapons that accepted it as a target, however, are now hopelessly off course. If you are unable to launch any more of them, firing the phasers at the WW in the first place was a waste of time. It would be better to leave it alone and close with his ship, since if he fires at you all of the seeking weapons will re-recognize their proper target. You might even cut tracking to drones about to hit the WW to keep it alive, just to keep the enemy ship in hiding.

All of which boils down to the basic point and the key decision. The enemy is no fool, and he has a WW waiting for you. So either launch enough seeking weapons to keep him "under the weasel" and charge him with direct-fire weapons, or launch just enough seeking weapons to get him to launch the WW, then burn it and launch some more. Or launch fewer than that, and he will have to let them hit since it's not worth a weasel. Of course, he knows what you're doing, so it becomes a game of "chicken".

WILD WEASELS   — Admiral Jeff Smith, Rtd, USS Tennessee

When attacking a base with seeking weapons, you know that he will have plenty of WWs available. The trick is to destroy the WW (probably with phasers) in the same hex as the base, which is a bit easier to do and VERY important since the base isn't moving. Before you destroy it, however, launch plenty of seeking weapons, preferably at intervals, to maximize the effect of collateral damage. Timing is important. You want the second wave of weapons to be outside of the blast zone, but you want several waves of blast to utilize the Mizia Concept of multiple "A-Row" volleys if the blasts will be adjacent to a down shield.

NOT JUST FOR SEEKING WEAPONS ANY MORE
— Cadet John Byrne

Wild weasels have always been used to distract seeking weapons. In particular, the Federation is famous for distracting your torpedoes (or drones) with a shuttle and then charging you with overloaded photons.

Next time the Federation player charges you, however, launch your own wild weasel and pump all of your power into ECM. The six points of ECM generated by the WW should be enough, by itself, to give the Federation ship a +2 on its photon die rolls, resulting in at least a 33% chance of a miss. To be sure, if he gets lucky, you're still dead, but no longer will four overloaded photons be an automatic kill at point-blank range.

He could emergency decelerate, kill your shuttle, and then unload his photons after the explosion period. Have a nice day.

THE PLASMA GAMBIT
— Admiral Charles Hugh Graeme Cree, Retired, USS Texas

When a plasma torpedo is tracking you, slow down and drop a wild weasel. Just before the torpedo reaches the WW, accelerate (use the mid-turn speed change rules) and charge the enemy. The torpedo will follow you, but it won't have much strength left when it finally reaches you, and your otherwise unoccupied rear phasers can take care of it.

This is very difficult to arrange and can really only be done over a turn break. Note that your ship's maximum speed will be limited by the slower speed.

PRESERVING THE WEASEL   — Cadet Bart Brizinski

When a flock of drones is headed your way, a common solution is to drop a wild-weasel shuttle. This is a good trick, but expensive since there are only so many shuttles on the ship, and you are tactically limited. One solution is to launch the WW, then roll a small mine out the shuttle hatch. The drones, now following the WW, will run over the mine, destroying themselves. If correctly timed, the WW will be out of range of the mine by the time the drones reach it.

FREEZING THE WEASEL   — Cadet James Arps

Since a wild weasel suspended in stasis suspends its activities (J3.5), the Klingons can use their stasis field generators to good effect, both offensively and defensively.

Offensively, use the SFG to freeze an enemy weasel, returning your weapons to their proper target. The disadvantage is that he will be released from the weasel restrictions and can fire back at you. Time the release of the field to catch him doing something that he shouldn't be, or when he is beyond 35 hexes from the weasel, so that it will be voided. If necessary, have another ship tow him out of range.

For the Klingons, freezing the weasel of one of your own ships can be even more effective. First, it will prevent the thing from being destroyed. Second, it creates a way to turn the weasel on and off though with a 1/4 turn delay between each stasis, allowing you to drag the drones back and forth between their target and the weasel. This will exhaust their fuel and give you more opportunities to fire at them.

A LITTLE SOMETHING EXTRA   — Cadet John Byrne

When you launch large numbers of seeking weapons, your opponent will probably use a WW to distract them. This will give you an opportunity to send him a little something extra.

Launch an MRS shuttle, carrying mines, and do not use its weapons or electronic warfare capabilities. Move it like a suicide shuttle, and be sure that there are enough seeking weapons around to force him to use a wild weasel. He will naturally assume that the MRS is just another misdirected bomb and ignore it, allowing you to get a mine-laying vehicle completely inside his fleet! The MRS could then fire its weapons (possibly at the WW?). Minesweepers might use one of the MLS shuttles for this role. The tactic is particularly effective against Cree's Plasma Gambit Tactic.

THOUGHTS ON WILD WEASELS
— Cadet J Anthony Clem, USS Georgia

Always have a wild weasel ready to provide ECM and distract seeking weapons. If you suffer a warp drive critical hit, having a weasel ready can save your life.

Use terrain (if there is any) to preserve the weasel. Send it behind an asteroid belt; the seeking weapons will be destroyed trying to reach it. Or send it behind a planet; the weapons will then lock onto the planet. Don't forget booster packs as a means of getting the weasel into a better position.

Use a weasel to cover your approach to a powerful enemy, such as a base. The weasel can remain out of the base's effective range while you pull in close. Have several spares ready, as each weasel will only last a short time.

Good analysis of lesser-used tactics.

SETTING WW SPEED
— Admiral Alan M Gopin, Retired, USS New Jersey

When launching a wild weasel, set the speed so that the weasel will move on the next impulse. This will ensure that you do not take any collateral damage. With speeds from 1–12 available (assuming boost packs, speed 16 if a boosted MRS-WW is used), you should almost always find one that will work.

∏OT ꓤEꓤLY ꓥ TꓥCTIC...

Oversight in the earlier issues of *NEXUS* was not as strict as it is now, and many things that were not really tactics were printed as term papers. But they are still worth noting.

WHAT'S YOUR NAME? — *Cadet Steven Wheeler*

What should be obvious often isn't. What your parents taught you in first grade is often forgotten.

When you get a new *Star Fleet Battles* product, the first thing you should do is write your name (and address and phone number!) in it. You should do this, NOW, to all of your SFB rulebooks. This will make sure that, when you and your friends get together, you will get home with all of your rulebooks, the ones with your secret plans in them!

Another good idea is to assign a color to each member of your group and use a marker to put a stripe of that color on the back of your counters.

It happens at almost every Origins that someone leaves a rulebook behind. Having a name and address in it might allow a greater chance for a good Samaritan to contact you and return it, which can be cheaper than ordering a replacement rulebook.

ANOTHER KIND OF FAST — *Cadet Robert Butts*

Yet another means of speeding up *Star Fleet Battles* (see article elsewhere in this issue) is to use only eight impulses. Each of these impulses represents four normal impulses. Everything is combined in those impulses, and every ship moves its full movement (as it would have in normal mode) in the Movement Phase. For example, if you are using only eight impulses, fast drones would move four hexes per impulse!

There will be many complaints and groans, and a lot of egg on faces all around, as great firing opportunities fly past. The game will be radically different, and victory will go to the one who can time his drones the best!

COUNTER SURVIVAL — *Cadet R M Gilbert*

Ask anyone who has played SFB for several years, and he'll show you a set of badly worn counters. To increase the longevity of counters, apply several coats of clear lacquer to them. This results in a tough finish and soaks deep into the cardboard, actually hardening the counters. I use Plasti-Coat Lacquer #349; other brands are available.

It is, by the way, much easier to coat a complete sheet of counters than individuals. Practice on scraps from the edges of the sheet until you get the right combination.

KNOW YOUR ENEMY — *Cadet Walter L. Abernathy*

Most players concentrate on learning every detail of their favorite ship, but you must also study the ship you are fighting. The firing arcs of an unrefitted Federation CA, for example, require him to turn to bring 1/3 of his phaser firepower to bear. Most Klingon and Hydran ships are not really dangerous if you can remain beyond range 3, but there are many exceptions. Note every detail! How many shuttle bays does he have (i.e., how fast can he lay mines or launch suicide shuttles)?

KNOW YOUR SHIP
— *Cadet Matthew Kausch, USS New Jersey*

Before taking your ship into combat, check all of the technical data, not just the SSD. This includes the ship description in section R, the refits, the errata, and the tournament rules (if you are in one). You may find some interesting things, like a shield refit, faster or slower acceleration, or a UIM as standard equipment.

Like all obvious advice, this is an often overlooked precaution.

FOLDING UNDER PRESSURE
— *Ensign Dimitri Arbatrov, USS Rosiya*

The rules allow you to keep certain information secret, but require "the SSD" to be shown to your opponent. While the Captain's-type SSDs include such things as drone rack loading, pseudo-plasma torpedoes, boarding parties, etc., the rules do not require these to be revealed. The simple solution is to fold the SSD in half, exposing only the ship portion to the enemy.

ME-TOO FIRING
— *Commodore Tom Hammond, Retired, USS Tennessee*

The rules say that all fire must be allocated before it is announced, but human nature being what it is, players have a tendency to say "me too" when the opponent announces fire. Several solutions are possible. One is to write down all fire. Another is to have a card for each weapon (plus a couple of blanks) and put face down those that will be fired.

Another is to use two dice of different colors, and turn up the number of phasers (white) and heavy weapons (black) that will be fired. This is done behind your hand and exposed simultaneously.

These techniques are required in highly competitive gaming, such as tournaments. In more friendly games, the "me too" concept is often accepted as a means of speeding up the game. Some players use it in all cases.

FOR WHOM THE BELL TOLLS
— *Cadet Randy Rowley, USS Texas*

If players are taking so much time to make decisions that the game is being delayed, use a small electronic timer. (Kitchen timers and some pocket calculators will work well, but must be accurate to the second.) Set reasonable time limits, say five minutes for energy allocation, one minute to decide if you will fire during this impulse, three minutes to find the rule you are arguing about.

Sometimes that's the only way to get them to play the game instead of talking about it. You don't need a fancy timer; just look at your watch and jot down the time on the Energy Form.

THE TRUTH ABOUT NVC
— *Admiral C H Graeme Cree, Retired, USS Texas*

Players who feel that non-violent combat will destroy more weapons than the DAC haven't calculated the percentages. Consider the odds:

	Control	Power	Hull	Wpns	Miss
DAC	6%	22%	44%	28%	00%
NVC	2%	15%	07%	12%	64%

As you can clearly see, the standard Damage Allocation Chart is far more efficient. A heavy penalty is paid to avoid killing enemy crew units.

The NVC percentages above include distribution of the random hits. All percentages have been rounded and assume there is no cargo. The Federation pays a heavy price for this policy.

PLAY-AID — *Cadet Stephen Newberg, USS Connecticut*

A sheet of 1/8" plexiglass or plastic, available from most hardware, glass, or building supply stores, makes an excellent play aid. It holds the map flat and keeps planet overlays from slipping. If oversized, it facilitates the shifts for a floating map. It also makes the terrain rules easier to use, as asteroid fields or zone boundaries can be marked with grease pencil.

This would also be useful in F&E to mark off the legal play areas for the current scenario. See Cree's F&E Tactical Note.

BALANCING ACT — *Ensign Graeme Bayless, USS California*

When balancing scenarios, never forget that BPV is not an absolute indication of the value of a given ship against all opponents. While you must be within 10%, that may not be enough. Don't forget that some races perform well against certain other races and poorly against others. Don't expect a 164 BPV Kzinti TGT (with battle pods and slow drones) to be an even match for a 164 BPV Gorn CC. The Gorn is not suited for fighting drones while the Kzinti is perfectly well suited to long-range seeking weapon duels. As has been mentioned hundreds of times, BPV is merely a guideline for balancing scenarios, not an absolute by which all ships can quickly be compared.

SFB is based on a carefully constructed history. Non-historical or unrealistic fleet selections void the warranty.

POINT OF TURN MARKERS FOR MINIATURES
— *Admiral Alan Gopin, Retired, USS New Jersey*

Your regular SFB counters are perfect to use as point of turn markers when you are playing with miniatures. Each ship gets its own point of turn marker, and you can easily tell which turn marker belongs to which ship. This is particularly useful in large fleet actions.

IN ALL FAIRNESS, MORE TIME, MORE TIME!
— *Admiral David Zimdars, Retired, USS Montana*

When reading the impulse chart, the chart reader/player is free to stop whenever he wishes, while allowing his opponent to pass up prime firing opportunities. There are other advantages to reading the chart, too, so many advanced players "volunteer" to relieve that burden from their unsuspecting opponents, particularly in serious tournaments. Therefore, it is much more fair to share that duty with a cadet, explaining to him that the impulse chart can give him a graphical representation of the turn, allowing him a greater understanding of how and when a tactical plan should be executed.

The Impulse Chart is the key to the game, and a good player should be aware of it whether he is the controller or not. This becomes critical in competitive gaming. Don't let the controller announce the next impulse until all players have given a definite sign that they do not wish to take any action. After the controller announces a new impulse, wait a second before moving to allow your opponent a chance to say "Hold it!" if he isn't through with the last impulse. This will avoid situations in which a player who sees his opponent's movement on Impulse #18 starts arguing that he wanted to do something on Impulse #17 but the controller went too fast.

Complaints were noted at the 1986 Origins Tournaments where the impulse controller was a friend of one player. If there is any question of how the chart is being read, stop the game until it is resolved. If necessary, call a judge or trade controllers with the game on the next table. Try to get along with the controller, but remember he's not a gamemaster.

LARGE HEXES — *Cadet Patrick Stapleton, USS California*

Use the large hex sheets designed for miniatures in fleet battles with counters. That way you can put several ships in each hex without stacking them. This makes it easier to keep track of where your ships are.

This will, however, require a very large table.

OLD FRIENDS, OLD TALES, AND LEGENDS

These old term papers comprise an important chapter in the history of SFB. Many names listed in *NEXUS* went on to become important members of the ADB staff, and many have now retired. Some became virtual legends in tournament play. Many basic tactics which are now "the book" on how to do just about anything were first published in *NEXUS*.

OBSOLETE PAPERS

NEXUS #7: Earl Durboraw's paper on modifying a ship into a minesweeper disappeared along with the modification rules.

NEXUS #8: Richard Gurley's classic paper, linking fighter reload boxes to heavy weapons, became illegal shortly thereafter. Steve Cole had two "papers" (high energy turns and battle pods), which were observations of games he had seen played and were not really tactics.

NEXUS #10: Bill Blakely used reserve power to restore one box of a down shield, allowing him to reinforce it next turn. This became illegal a year later. Another paper by Cadet Blakely on maulers was later found impractical. Dean Stow's tactics for avoiding a mauler shot became impossible after Directed Turn Modes entered with the Captain's Edition. Blake Wells had some good tactics for emergency deceleration that did not survive the Captain's Edition rules.

NEXUS #11: Stephen Novak's interesting ideas for ship modifications are useless without those rules. He did, however, spend the last five points on the maximum number of boarding parties, something that has become a fairly common practice for Commander's Option Points, which did not exist at the time.

NEXUS #12: Stephen Armstrong had one of the better papers on the offensive use of ship explosions, but the new Captain's Edition rules with lower explosion strengths made these unworkable. Alan Gopin suggested adding type-F drone racks to Lyran shuttle bays, something no longer legal. Troy Hammerman suggested assigning Federation plasma ships to the Klingon border to gain an advantage from dissimilar tactics.

NEXUS #13: Barton Bolmen had a tractor beam tactic which does not work as well in the current tactical environment. Matt Leuthold had some suggestions on using PF explosions, but under the Captain's rules, things just do not work that way. Steven Rushing had a clever plasma deception that can be detected quite easily under the Captain's Rules.

NEXUS #14: Brenton Burchmore's tactic to attack ESG ships became obsolete under the new Captain's rules.

NEXUS #15: Stephen Armstrong's tactic against the ISC was so good that they added a fourth echelon for the scout and made it obsolete. Perry Carr's anti-Andromedan tactics became obsolete under the smaller explosion rules of the Captain's Edition. Evelio Perez-Albuerne's T-bombs against fighters tactic ceased to work when the number of T-bombs was reduced.

NEXUS #16: Timothy Groh's tactics to dock ships to a base as power modules was made ineffective in the Captain's rules.

FEDERATION F–18 FIGHTER (BOTTOM VIEW)
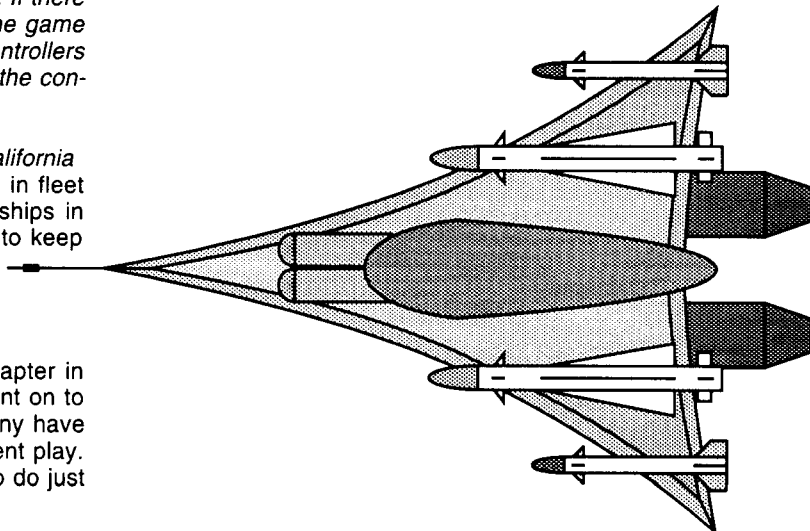
ASK UNCLE ARDAK

Like so many now-familiar features of Captain's Log, the tactical advice column *ASK UNCLE ARDAK* began in *NEXUS*.

Game players have an advantage over real starship captains. If a player doesn't understand the tactics of a certain race, or thinks something is wrong with their ships, he can just change races. The fictional members of an interstellar race don't have that advantage. They have to keep plugging away and paying in blood for new tactical solutions. There are solutions to every problem; the key is looking for them long enough to find them. Once the game tactics are developed, the problem is communicating them to players across the country and around the world.

HITTING THE TARGET YOU WANT

The enemy has tractored my drone at a range of one, obviously intending to hold it until his phasers can recharge. I wanted the drone to hit his weak (or down) shield. What are my options? Is there any way I can break that tractor and force the drone to hit before the turn ends?

1301U: This is a classic problem which eventually confronts every captain. The first reaction is that, since the drone is held by a tractor beam, there must be some solution that would involve your own tractors (shoving it into his ship), but this is not the case. Tractoring your own drone voids its tracking (G7.522). Even an allied ship of a different race would automatically be on the same command frequency and would void the drone. About the only tractor possibility is that a third ship (in a three-player scenario without allies) could tractor the drone and try to pull it loose using (G7.371). There is no provision in the rules to apply a tractor beam to the drone and use the beam to "pump" negative tractor energy to the drone.

But all is not lost. If you can't break the tractor beam, you can at least try to break the tractor itself. Hit-and-run raids are useful here, as is any internal damage you can score on the enemy ship. Both approaches require a certain amount of luck. If you are using the (D22.0) Energy Balance rules, hitting his power systems (with weapons or hit-and-run raids) could force him to release the drone.

Launch more drones. The enemy is actually helping you set up a two-wave attack, as the damage from the new drones could release the tractored one. If you don't have enough control channels, cut the tracking to the tractored drone (if you are close enough for the new drone to hit him before the turn is over). What? You don't have another drone rack ready to launch? You mean when you launched that first drone, knowing that he had a tractor available, you didn't figure out how soon you would be able to launch another one? How about a suicide shuttle? Even a fake one. Good captains can find the options; the best captains create them!

AGAINST EMERGENCY DECELERATION

How am I (the Gorn player in our campaign) supposed to make plasma torpedoes work if everyone uses emergency deceleration? I launch all my torpedoes, he decels and pops a weasel, then I reload, and we repeat the process. I'm killing one shuttle every three turns, and getting plastered in the process. Something is wrong!"

1302U: Something certainly is wrong, and the problem is in your tactics.

First off, how are the Romulans staying alive in your campaign with the Feds using Emer Decel? If the Romulans can succeed, perhaps you can learn from them. If the Romulans were defeated by the ED/WW combination, both you and the Romulans need some new tactics!

The key to your problem is your statement that you launch all of your torpedoes, after which he uses a weasel. The primary thing about plasma torpedoes is that they are seeking weapons and do not automatically hit. To get hits, you have to confuse and deceive your opponent. The key there is to avoid being predictable. Plasma captains must be masters of several techniques and use a different one every time. You have limited yourself to a single tactic (mass launches) and have become predictable. That is the problem, not the rule.

You are to be commended for seeking advice, and I'd like to encourage others who have problems to seek it rather than continuing to meet defeat and failure. I could just tell you to go read the TACTICS MANUAL. After all, that is what it's for! The TACTICS MANUAL devotes several pages to plasma tactics, far more space than I can devote here. But we can outline some of the basic concepts, and my panel of experts have suggested a few new tips.

First, you can use the Gorn Anchor technique to prevent the launch of a WW. It's not easy to do, but if you pull it off, you will probably win that particular duel right there. Few ships can take a full plasma salvo from an equivalent-sized ship and survive. For those who do not know, this means grabbing the enemy with a tractor beam and then launching the torpedoes. The TACTICS MANUAL devotes almost two pages to this subject alone.

One of my panel of experts (Alan Gopin) suggested that you could launch just enough torpedoes (real and pseudo) to draw a weasel, then use a mid-turn speed increase to close in. When the torpedoes burn the weasel, you'll be close enough to Anchor and hit him with your other real torpedoes.

Fleet Captain Mark Schultz, the 1985 National Champion, suggests that you should launch your torpedoes near the end of the turn and schedule them to hit the WW early in the next turn. That way you can program speed changes that will let you close and Anchor him on the next turn.

Barring a successful Anchor (which is more of a threat than a fact, but the threat can force him to do things that he wouldn't normally do), the basic plasma tactic is to not launch all of your torpedoes at the same time. You want to launch them in clusters, and don't have more than half of your torpedo firepower on the board at any one time.

Graeme Bayless, another of my panel of experts, suggests that you consider the concept of the "weasel threshold," the

number of torpedoes it will take to scare him into using a WW. You can stay under this threshold or go right up to it, but you shouldn't exceed it. Graeme suggests that for a typical cruiser about 40–50 plasma damage points (enough to penetrate a reinforced shield and do substantial internal damage) should be enough to do the trick. Some captains (those with less experience) tend to use WWs too freely and have an artificially low weasel threshold. Here you can use their predictability against them. If you know that Freddie, who you play every week, always uses a WW when he sees two torpedoes, show him two and be ready to take advantage of his predictability.

If you launch only one torpedo, an average captain will probably let it hit him rather than accept the tactical disadvantages of being under WW restrictions. But then with phasers and shields he can survive one torpedo. That may not be a bad thing. One shield will be down or at least damaged, and you can keep working on him until all of his shields are weak.

A common plasma tactic is the "string launch" where you launch one torpedo every impulse or so in a sort of "bidding war" trying to provoke a weasel with the minimum number of torpedoes launched. If your opponent has steady nerves, he'll calmly let you empty all of your tubes and then use a weasel just before the first (or second, or third) torpedo hits him. What, you've never seen someone use a WW after he was hit? Well, it happens, and all too frequently.

The other end of the spectrum is that if you are going to launch enough torpedoes to make him use a WW, don't launch any more than that amount. The trick here is to get him to launch a WW, then you close in and burn the weasel (if you included at least one real type–F in the volley you won't have to waste phasers on the weasel), and when the explosion period is over, you are sitting at point-blank range with some of your torpedoes armed and ready to launch. Then you can Anchor him and cripple or destroy him. Even if you can't Anchor and he uses another WW, at least you are killing the shuttles twice as fast, and most cruisers on the plasma side of the galaxy have only about four of them (many on the drone side have fewer).

If you don't have enough torpedoes to make this work, try to use some creative thinking. You have pseudoes, of course, which effectively double your launch rate for one turn. Take note that this is a one-time-deal, and don't waste them with poorly prepared attacks. Take note that pseudoes upset the predictability of the weasel threshold. He sees some torpedoes coming that add up to 60 points, enough to penetrate the shield. You may have used a pseudo to make the point count look higher than it actually is. He may gamble that you did. It's a guessing game, and you must avoid being predictable.

Another option is to prepare suicide shuttles, an overlooked and seldom-used weapon. He may weasel your torpedoes and then let you get close because he thinks you don't have anything but phasers left. A couple of suicide shuttles can crush his shield and ruin his entire day.

One complex tactic for use against expert opponents is to launch several torpedoes under the "string" system so that they will hit different shields. The cool-hand opponent will see that he can keep right on going without any shield penetrations, but after all the torpedoes hit, he won't have any shields left for the next turn.

If you can't get close enough for an Anchor and suspect he has WWs available, you can always use plasma bolts. You can bolt from the Glory Zone (9–10 hexes, where the bolt has a good hit probability but overloaded weapons can't fire back) if you have plenty of time to wear him down. Remember that a bolt on the shield is worth two torpedoes in the weasel.

These tactics should point you in the right direction. Let me know how they work. Good luck and good hunting!

In THE HEAT OF BATTLE

by Fleet Captain Mark Schultz

A thorough understanding of the capabilities of your ship is critical to success in *Star Fleet Battles*. Consideration must be given to power requirements for both normal and overloaded weapons, speed under varying conditions, the optimum ranges of operation of the ship, and other factors.

Many players, however, judge the worth of, choose, and plot the tactics for their ship based solely on its capabilities in its pristine, undamaged state. While many fights are decided in the critical first exchange, most require the continuation of combat beyond this point. Predicting what the condition of a ship will be after an exchange at the expected combat range can be of immense value in trying to set up the killing blows. Any good captain can evaluate the damage to his and his enemy's ship and then make the best of the situation. A better captain will predict what that damage will be and set up his position to take advantage of it.

The first step in figuring out the results of combat is calculation of the expected amount of damage. This is usually a simple procedure, although weapons like overloaded photons with their wide deviation in possible damage can make this tricky at times. The second step is to figure out the probable internal damage for a given amount of damage. Tables of expected damage for two typical and statistically convenient volley sizes are given below. Table 1 is for 18 internals, table 2 for 36. System hits are given in order as on the DAC. Cargo was ignored, but can generally be considered as forward hull. Very small ships may get farther down the DAC than these charts consider.

TABLE 1 — 18 Internals

#	System
0.5	bridge
0.5	aux con
0.5	transporter
0.5	tractor
1	drone/phaser
1	torpedo/phaser
1	right warp/A hull
1	left warp/F hull
2	phaser
6.5	F hull/batt/imp
3.5	A hull/APR

Table 2 — 36 Internals

#	System
1	bridge
1	aux con
1	transporter
1	tractor
1	drone/impulse
1	torpedo/impulse
2	right warp/A hull
2	left warp/F hull
4	phaser/warp
14	F hull/batt/imp/lab/warp
8	A hull/APR/shuttle/warp

Several general principles become apparent upon examination of these tables. Ships with forward to aft hull ratios which aren't near 3 to 2 will begin to lose power systems before all of their hull is gone. Klingon ships (short on forward hull) are especially susceptible to loss of battery capacity and impulse power before all of their aft hull boxes have been destroyed. On the other hand, Federation ships (short on rear hull) can lose APR and shuttle boxes before all of their forward hull is gone.

You should determine how many internals will reach battery hits on the DAC, making it advisable to dump battery power into something before they are destroyed. This decision will need to be made before the exchange of fire, as at that point you will only be able to reinforce shields. Similarly, ships with inadequate aft hull will lose APR and shuttles more quickly. Always launch as many shuttles as possible when a volley sufficient to reach the shuttle bay is expected. Shuttles which will chain when hit should obviously receive priority. Like the battery decision, this decision must be made before the incoming volley is

even fired. Obviously, ships with only center hull make these decisions much more easily.

In normal combat, multiple small volleys (i.e., the Mizia Concept) should be used (instead of a single large volley) against ships where the loss of weapons will hurt more than the loss of power (assuming most of the hull is gone). For example, almost all plasma ships, and most Federation, Hydran, and Klingon ships, are more susceptible to weapons damage and should be targeted by multiple small volleys. On the other hand, most Lyran tri-hulls, the Kzinti CL+/CVE+, the Federation DD, and some others, have too many weapons and not enough power to start with and should be targeted by single massive salvoes to cause more power hits.

Note that splitting fire into volleys of less than 18 internals will produce only very small increases in the number of weapons hit, as statistically most 3s, 4s, 10s, and 11s will produce weapon hits on an 18 point volley. If phasers are the target, 12–point volleys may be slightly more effective. If a single weapon is the most important target (a War Eagle's R-torp), smaller volleys produce very slightly higher statistical chances of a weapon hit. Ships which have both drone and torpedo weapon systems may find much of their heavy firepower destroyed by a single 18-point volley which does essentially no damage to the rest of the ship. Examples include the Panther and the Baron. These ships must be extremely careful to prevent multiple small volleys as this will rapidly reduce them to fast freighters. One exception to using multiple volleys is when efficient, immediate explosion of the target is desired. Multiple volleys will result in irrelevant hits, requiring more total hits to produce the explosion.

Generally, ships with large numbers of the same type of weapon (e.g., Klingon and Federation cruisers) will fare better against both single and multiple volleys than those with an equal number of weapons divided between two weapon hit category types (e.g., Hydran command ships). Ships with small numbers of very powerful weapons can often be rendered useless with a single small volley. The ISC heavy cruiser turns into just another plasma ship after one small volley destroys its single PPD. War Eagles become minelayers without their R–torp, and the single-torp (unrefitted) Gorn DD is also vulnerable. Another example is the Hydran Crusader frigate leader with its one hellbore and two fusion beams. This ship has great quantities of power, but one volley relieves it of all but one fusion beam and a few phasers. The result is a ship which often must disengage with 90% of its power intact. The ship captain might appreciate this, but rest assured that the fleet admiral finds it not at all amusing.

One must also consider that the less powerful weapons can usually be repaired. Weapons like the PPD and hellbore take prohibitively long times to repair. The Andromedan TR is a glaring exception to this. Because phasers are usually quicker to repair and require less power to arm, they often are the first systems to be repaired. Captains with an eye toward an extended battle will deduce that repairing heavy weapons rather than phasers results in a more survivable repair, often critical because of the limitations on system repair. A ship's entire quota of system repair expended on phasers can be wiped out in a single moderate volley, while only one heavy weapon repair will be destroyed in the same volley. Ships with more power than weapons should definitely repair heavy weapons, using EDR if necessary. Indeed, EDR is best used on those items taking the most repair points. If the opponent has more power than weapons, you should repair phasers since your opponent will not have the weapons to destroy your repairs and because phasers are less susceptible to the EW which will most likely be used by a power-heavy ship in an attempt to even the odds.

Consider the impact on the placement of guards. Realize that it is unnecessary to guard a system that will probably be destroyed on the first exchange. Hit-and-run raids will usually only be made after the impact of a serious volley. Realize that the number of transporters will (and hence the number of boarding parties assigned to raids or boarding actions should) probably be reduced by one or more before the opportunity to use them arises. The probable number of tractor hits is only one for a single volley, but plasma ships in particular must consider that two volleys (or a couple of hit-and-run raids) may often make them incapable of executing the famed Gorn Anchor.
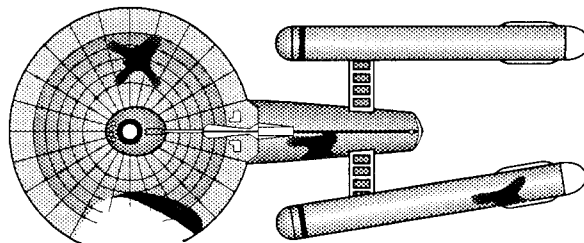
Another thing that becomes obvious from the tables is that rendering a ship uncontrolled is usually very improbable, as volleys of the size needed to make the removal of all control probable will usually destroy the ship first. Exceptions to this include the Lyran Wildcat and Hydran destroyers. A good formula for this is to multiply the number of control spaces by 18 and compare it to the total number of non-shield boxes. Ships with more actual boxes than the calculated number (18 x control) have a reasonable chance of going uncontrolled before being destroyed. Note that the number of control hits will not be increased with multiple volleys unless the volleys are very large or the firer is very lucky. Realistically, only dreadnoughts (and Hydran destroyers) will have their control affected by multiple volleys. Even though all control spaces are guarded, if there is only one left, a raid (especially with commandoes) against it may be worthwhile.

Ships with only center warp will tend to lose most, if not all, of their "free" hits before taking serious warp damage. These ships usually have a better chance to disengage by acceleration when fortunes turn bad, but are also the easiest ships to blow up without every box destroyed.

After the initial exchange, both players will be flying damaged ships. The key in determining how to continue the fight is which you are short of: weapons or power. This will greatly affect the speed at which a ship fights. Ships short on power must slow down; ships short on weapons generally speed up in an attempt to out-maneuver the opponent. Special attention must now be paid to the relative efficiency of weaponry. At close range, charging heavy weapons instead of the remaining phasers is usually a bad idea. Expenditure of power on EW will often turn out to be meaningless in a phaser duel, but ships with more power than weapons can often turn to EW as a means to win an otherwise unbalanced fight. Single turn weapons are considerably more valuable in these situations than their multi-turn cousins. This is due mostly to the fact that predicting power and weapon availability becomes more and more precarious as the battle wears on, since every hit will be on a valuable system.

As a final note, ships with balanced weapons and power (like the Federation, Hydran, and Klingon CAs) will tend to stay balanced when damaged. Unbalanced ships (like the Lyran Wildcat, Federation DD, and Hydran Traveler) will tend to become even more unbalanced and even more difficult to play. Thus, when given a choice between two otherwise equal ships in their undamaged state, the more balanced ship may fare better in the late turn trenches.

Mark Schultz won the 1985 SFB National Championships and now serves as the Hydran Viceroy on the Joint Chiefs.

TACTICS FOR FRIGATE SQUADRONS

Frigates are not cruisers, and operating them with cruiser tactics will produce nothing but failure. Frigates must capitalize on their advantages of high speed and maneuverability while minimizing their disadvantage of vulnerability.

There are two basic principles in frigate combat. The first is that any typical frigate's weapons can produce enough damage to penetrate the front shield of any other typical frigate. Frigates cannot reinforce their shields enough to prevent penetration, even with all of their discretionary power diverted to the shields.

The second basic principle is that because frigates are relatively small, every internal hit becomes critical. (In other words, any damage is too much.) Once shields are down and damage is being scored, the end is not far away.

With these principles if mind, it is obvious that frigates cannot engage other frigates with the standard cruiser tactic of closing to point-blank range and opening fire. This will produce only expensive fireworks and two near-dead ships.

Instead, frigates should operate like WWII fighters, maneuvering to strike the enemy's flank shields — not because those shields are thinner, but because the target's heavy weapons cannot be fired in those directions. At ranges of 3–5, your heavy main weapons will easily overwhelm his flank phasers.

Speed is important to all ships and crucial to frigates. These small ships lack the firepower to stop seeking weapons, the shuttles to divert them, or the shields to shrug off hits. Reducing speed or stopping is an invitation to every ship with a seeking weapon to pick you as a target.

If you have an opportunity to destroy an enemy ship, but your own ship will be destroyed or crippled, don't take the offer. A better opportunity will present itself in due time; mutual suicide is inefficient. Destroying an enemy ship is more enjoyable if you survive the experience.

In a fleet battle, with dreadnoughts and cruisers punching it out, you must be careful to remember your place. Keep out of overload range of enemy heavy ships. Avoid being picked as "the biggest thing he can kill with one shot." Your job is to protect the big ships from enemy seeking weapons and fighters, attack the enemy with your own seeking weapons, and prevent any enemy frigates from getting into your own formation.

This article is adapted from STAR FLEET INTELLIGENCE, the Australian SFB magazine. Additional comments on this important subject by the Committee are given below.

Not all frigates are created equal. The title is granted to ships ranging from 45 to 75 points. There is also considerable difference between ships of the same nominal power. The Klingon F5, for example, has destroyer engines and a movement cost to match. This means that at moderate speeds it will have more discretionary power than the comparable Federation frigate.—*Steve Cole*

Many frigate tactics apply to destroyers, which are not enough larger than frigates to use cruiser tactics.—*Ray Olesen*

Frigates must make up for their shortage of power with clever tactics. Charge weapons, phasers, ESGs, etc. before closing. They are too expensive to arm during heavy combat. Remember your tractors, which may be the most efficient way to deal with drones. If you can penetrate the enemy's shields from medium range (usually possible for the Federation's photons), do so.—*Felix Hack*

A frigate squadron approaching the enemy should remain in the same hex. While this is contrary to conventional wisdom, when one ship is destroyed there will be a 5/6 chance that a shield facing away from the enemy will take the damage from the explosion. When part of a fleet, you should remain just behind your own heavy ships, where your weapons can protect them but where you will avoid being vulnerable.—*Jeff Smith*

Romulan frigates will be slightly inferior to frigates of comparable BPV because of the cloak. You must use this device effectively if you expect to achieve victory. Use it to achieve a firing position and escape his return fire.—*Remus Maximus*

To ensure survival, use EM as much as possible. It produces ECM points for less energy than electronic warfare. Also note that not all frigates use these tactics. The ISC push their frigates directly into the enemy formation. Drone frigates remain clear of the action to employ their unique firepower. Carrier escorts must place themselves between the enemy and their carrier, and stay there.—*Frank Crull*

Frigates can do anything cruisers can do, but they cannot do it very long. They must use hit-and-run tactics, darting into and out of the battle, striking fast then pulling out of range to reload weapons.—*Ardak Kumerian*
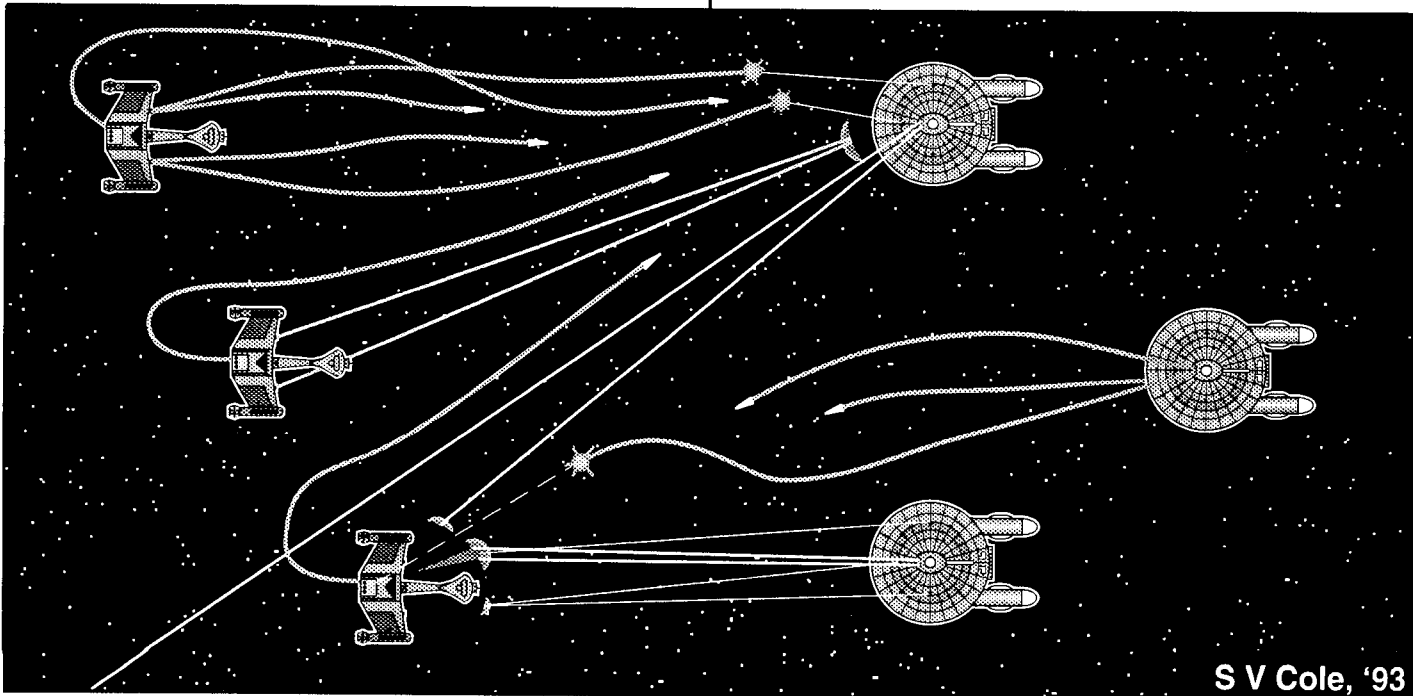
S V Cole, '93

THE ACADEMY

One of the most popular features of Captain's Log is the Academy, a fictitious future classroom where cadets from Star Fleet Academy (with names suspiciously like those of the SFB staff and playtesters) sharpen their tactical skills in classroom debates and simulator exercises.

The Academy began back in *NEXUS #2* with a classroom session in which "the Commander" (a professor of tactics who happened to hold that naval rank) questioned his students on various tactical concepts. This developed into formal sessions on set topics, wandered further into the field of fiction with sessions set in Orion and Klingon space, and then (with the advent of computer bulletin boards) developed into the current "review board" sessions. [Ironically, reviewing these sessions inspired ADB to create an entirely new session on Seltorian tactics that will appear in Captain's Log #14.]

Here, presented for the first time in one place and in chronological order, are the complete transcripts of THE ACADEMY.

THE FIRST SESSION

"Cadets, I realize that the null-gravity handball championships are scheduled to begin during our class period, so I have dispensed with our scheduled lesson plan for today." The Commander paused to let the applause subside. "Instead, I would like to present a series of tactical problems and discuss possible solutions. Perhaps one of you would be good enough to keep track of the time and let me know when it is, let us say 1415 hours. That should let you all reach the courts in time to get good seats."

A cadet in the front row, wearing the red loops of an engineer on his epaulets, took out his watch and nodded to the Commander.

"Cadet McCarthy," the Commander snapped as his chosen victim bolted to attention, "you are in command of a *Constitution* class cruiser in combat with a Klingon D7 class battlecruiser. Both of you have suffered minor damage — never mind the exact details. The Klingon just completed a firing pass and is now turning to face you from about 300,000 kilometers. What are your orders?"

"Arm photons, reinforce the front shields, and turn toward him, sir," answered the named cadet.

The Commander turned to face him. "Why not close with him, Cadet?"

"I would prefer to let him use the power, sir, while I use mine to reinforce the shields."

"You realize, Cadet, that you are surrendering the initiative, do you not?"

"Yes, sir, but I am also giving him a chance to retreat. I presume that my mission is a defensive one. As such, while I remain in place, I hold the territory he wants to use."

"An acceptable answer, Cadet. I realize that under more defined conditions you might provide a more definite answer." The Commander turned to face the blackboard, then wheeled and thrust his finger inches from the nose of a slumbering cadet on the front row.

"Cadet Kaufman, let us assume that you are in command of the ship under discussion, but the conditions are changed. You have penetrated the Neutral Zone — the reason is not important. You have been caught red-handed where you are not supposed to be. What are your orders?"

"Back up at warp two," the awakened cadet answered with a yawn.

"Arm the photons with overloads, set them for a narrow salvo, and tell the Klingon just exactly what I have done."

"What do you suppose that will accomplish, Cadet?"

"Either he will take the bait or run. If he comes in, I have a 50% chance of crippling him. If we are not lucky, I still have the phasers to fire at close range."

"An interesting solution Cadet Kaufman. You have a built-in 75% chance of success, but a less than even chance in combat if you fail.

"Cadet Spencer. You are in command of the Klingon ship. What are your orders."

"Launch drones, arm disruptors with overloads, and close to within 50,000 kilometers, sir. Fire at that point. If the photons hit me on the way in, I sheer off and run for home and drop mines behind me as I go. If he misses, I can hit him with my full firepower and then recharge everything and run right over him."

"Typical Klingon tactics, Cadet. Straight to the point. Cadet Kaufman, your photons have missed, and you have taken damage. You have only two working phasers that will bear. Your orders?"

"Fire at his ship, and hope for a critical hit." A ripple of laughter swept across the class. "Reload the photons, and launch a couple of shuttles to gain firepower."

"How will you recover the shuttles if you have to run, Cadet?"

"I do not intend to run, but I can recover the pilots by transporter if I cannot operate in retrograde."

"But firing at his ship means that his drones can hit you. What are your plans, Cadet?"

"Grab the drones with tractor beams, sir."

"Cadet Thompson, we now replace the Klingon D7 with a Kzinti strike cruiser, of which you are in command. You launched four drones earlier, and he has grabbed two of them with tractor beams; the other two were destroyed by phaser fire. What are your orders?"

"Launch more drones, overload the disruptors, energize all phasers, and overrun him, sir."
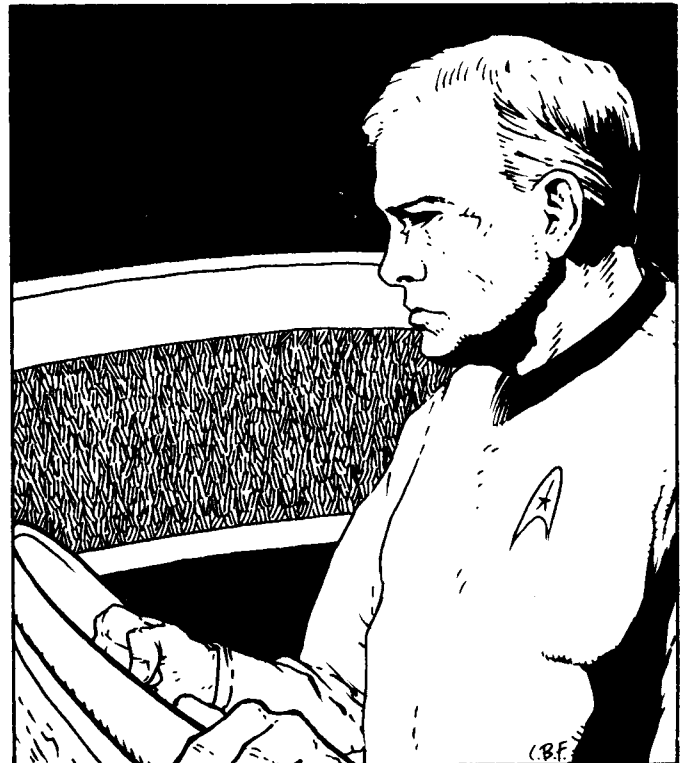
"You have taken sensor damage as a result of hit-and-run raids and cannot control more than four drones, so you can only launch two more. Also, you must remember that he is backing at warp two."

"Cut the tracking to the drones he has tractored. He will not be able to establish a new tractor link in time. Also, I can launch a suicide shuttle."

"Assuming that you had already armed it."

"Naturally, sir, but even if it were not armed, he would have to assume it was armed. As for speed, if I did not have the energy to overrun him, I would save power by not fully charging the phaser capacitors, using only enough energy for the forward firing phasers. And I would maintain a range of 50,000 kilometers."

"Cadet Kaufman, you now find yourself in deep trouble. Your photons are not reloaded yet, your tractors have not recycled, and you have six working phasers and two deployed shuttles. Your opponent is a Kzinti strike cruiser with full armament. Four drones are closing with you. What are your orders, Cadet?"

"Continue retrograde operations at warp two, and fire at the drones with the shuttles and some of the phasers. Keep the front shields reinforced, and keep charging the photons."

"What about your remaining phasers, Cadet?"

"They probably would not get through his shield reinforcement. I will hold them until the photons are ready and hit him with everything at once."

"Cadet Kaufman, you should know that you can recycle your phasers before the photons will be ready."

"Yes, sir, but it would be pointless—so I will use the power I saved to reinforce my own shields."

The engineering cadet seated next to Kaufman caught the Commander's eye and pointed to his watch.

"All right, it is time to close for today. I expect everyone to work out the scenario we described on the simulation computers with his lab partner and to hand in a report before the start of tomorrow's class."　　　　　　　　　　　　　　★★★

SPENCER'S GAMBIT

The cadet with engineer's loops on his epaulets re-stacked his books on his desk and gathered the papers that had scattered across the room.

"Now that the interruption is over," the Commander fumed, "Cadet Spencer may proceed with his explanation of boarding tactics."

"Yes, sir. I have studied the reports from the Proceedings of the Gorn Naval Institute and have found an opportunity for a tactical gambit that can prove highly effective in capturing enemy ships."

"Go on, Cadet, we are all very interested," the Commander intoned, fixing the clumsy engineer and the slumbering Kaufman in his gaze.

"Using plasma torpedoes to eliminate enemy shields has been a haphazard operation at best. The warhead strength cannot be adjusted to match the shield, which results in more damage and loss of life than is necessary on the enemy ship. There is a simple method available, however, to adjust the strength of the warhead."

"Nonsense," interrupted the engineer.

"He does not look Gornish," added Kaufman, "but he does *smell* that way."

"The tactic," Spencer went on through clenched teeth, "is to fire your own phasers at your own torpedo at the last instant before impact. Using this method, the warhead strength can be reduced to appropriate levels. If the computers determine that

the torpedo will not be strong enough, the phasers are fired at the shields themselves."

The entire class sat in stunned silence. The Commander was lost in thought. A Star Fleet captain that had been observing the class stormed out of the room on the way to the battle simulation laboratory. Kaufman came completely awake for the first time in weeks. The engineer was furiously working on his pocket calculator.

"My lord," the engineer finally whispered, "it looks like it could work."

"Cadet Spencer," the Commander finally said, "you have, perhaps, discovered something of considerable significance. I expect you to develop it fully for your thesis, which is due next week. The rest of you will spend this afternoon in the lab experimenting with Cadet Spencer's tactic. You will all write a 5,000 word report on applications of the technique and turn your reports in to me at class time tomorrow."　　　　★★★

CAPTAIN K

BRIDGE, KLINGON CRUISER *ANTAGONIST*

"Well, where is he?" Klingon Captain K demanded.

"No sensor contact as yet, Captain K," the navigator responded.

"If you ask me, Captain K, the Federation captain is not foolish enough to come through that asteroid zone," the engineer remarked from his console.

"I did not ask for your opinion, Engineer, and I do not welcome it." The captain slumped back in his command chair and frowned at the screen. "Spencer and his bright, shiny, new cruiser are out there, somewhere. I can smell him. He is looking for us, and I intend that he should find us ... *here*. Helm, slow to warp two and keep us 80,000 kilometers from the asteroid zone. Engineer, you have the con."

The sleek D7 coasted on through the void, parallel to the belt. Captain K nodded off to sleep.

BRIDGE, FEDERATION CRUISER *ORISKANY*

"He is over there on the other side of those asteroids, I know it."

"Captain Spencer, you cannot seriously mean to penetrate that zone looking for him. Let us wait here until we know more about the situation."

"Commander McCarthy, your suggestions are duly noted, but it is my command and my decision. Helm, course two-seventeen, mark two, warp two."

Captain Spencer sat upright in the command chair and began to take reports from the lower decks.

"Captain, do not do this! The asteroids are radioactive. Our sensors will be blind until we exit. If the Klingon cruiser is on the other side of the belt, he will be waiting in optimum weapons range," Commander McCarthy warned. "It will mean a head-on pass, and you will never get back through the asteroid belt without the number one shield."

"After a head-on pass, we will not need that shield," Spencer smiled. "We will have won the battle."

BRIDGE, KLINGON CRUISER *ANTAGONIST*

"There he is! Sound battle alarms!"

The klaxons resounded through the D7 as the bridge crew scurried to their stations.

"I have the con, Engineer. Helm, slow to warp factor one and turn directly toward the enemy ship. Security, lock up the peasants until this is over. Engineer, bring your power plants to full rating and reinforce the front shields in case Spencer tries some long-range shooting before he comes in. Weapons, give

me range to the target." Captain K snapped out his orders while examining the tactical screen.

"Range 74,000 kilometers, closing at warp two."

"Launch drone number one."

"Drone number one launched electronically."

"Engineer, stand by with special systems operations."

"Standing by, Captain K. Shuttle number one ready for launch. Transporter rooms standing by."

"Very good, Engineer, execute at your discretion."

"Aye, Captain." The engineer turned to his control panel and began working.

"Enemy ship is positively identified as the *Oriskany*, Captain K. That is Spencer's ship."

"Maintain warp one. Maintain heading, directly toward *Oriskany*."

"Aye, Captain K."

"Captain K, this is communications. *Oriskany* is hailing us."

"Open a channel."

The forward view screen cleared, and the smiling face of Fleet Captain Joshua Spencer appeared.

"I say, Captain K. Would you care to surrender today?"

"Enough with the jokes, Federation clown. You are insufferable. I would invite you to surrender, but I do not take prisoners."

"Is that one of your own jokes, Captain K?" Spencer asked.

"No, you will get one of my jokes in a minute," Captain K answered, cutting the communications with a chop of his hand, "but you will not find it as humorous as I will."

"Weapons, this is the Captain. Overload the disruptors, lock disruptors and forward phasers on target, engage computer control. Launch drone number two."

"Flight deck, this is the engineer. Launch shuttle number one, then roll a mine out. Lower shields #3 and #5, and transport dummy mines as planned. Marines, stand by for boarding action."

BRIDGE, FEDERATION CRUISER *ORISKANY*

"The Klingon ship is still moving at warp one, Captain Spencer. He has launched a shuttle, but it is not moving. He has also launched another drone. Do you really intend to hit him head-on? He is using his transporters, probably to lay mines."

"Do not question my authority, Commander McCarthy, just follow your orders. Overload the photons, lock all phasers and photons onto the Klingon, and continue closing."

"Are you going for an overrun? Are you serious?"

"Absolutely! We can trade salvoes with that tin can, coast right on over him, and then evaluate the situation. He will take at least thirty percent more damage than we will."

"Drone closing at high speed, Captain," warned the sensor operator. "Identified as a standard type-I."

"Release number four phaser from command lock, and fire at point-blank range," Spencer commanded.

"Second drone behind the first, also identified as a standard type-I."

"Release number three phaser, and engage on same orders."

"Aye, Captain."

Tension rode high as the ships closed. The sensor operator called off the range in ever descending numbers.

"70,000 ... 60,000 ... 50,000 ... 40,000... 30,000 ... 20,000."

The view screen flared white as the computers on both ships fired their weapons simultaneously. The ship shook with the shock of being hit solidly by the full spread of Klingon weapons. The bridge went dark, then lit up again as control panels began exploding from the energy overloads.

"Damage Control, this is Captain Spencer. Report!"

The ship continued to shudder as it staggered onward.

BRIDGE, KLINGON CRUISER *ANTAGONIST*

"Damage Control, this is Captain K. Report!" The engineer turned to face the captain and began reading from a long list:

"Forward shield down. Warp engines damaged, now operating at seventy-five percent. Auxiliary reactors at fifty percent, impulse engines at sixty percent. Batteries in the aft hull exploded, leaking gas is causing crew casualties, and none of the batteries remain accessible. Forward phasers out. Port disruptors inoperable. Drone rack number two destroyed. Major damage to hull sections eleven through seventeen, and twenty-five through twenty-nine. Laboratory sections completely destroyed. Emergency bridge destroyed, auxiliary control damaged, aft security station destroyed. Fire control damaged but operational. Probe launcher destroyed. Two transporters inoperable. Forward tractor beams destroyed. Shuttle bay destroyed."

"Gratz!"

"We still have lock-on. Spencer just got your joke."

BRIDGE, FEDERATION CRUISER *ORISKANY*

"It is worse that I had hoped," Commander McCarthy moaned. "Forward shield down. Photon tubes C and D destroyed. Phasers number one, two, four, and six destroyed. Major damage to lab and hull sections. Auxiliary control damaged. Main transporters out. Warp engines at eighty percent; impulse engines at fifty percent. Aft battery room damaged. Some damage to shuttle bay. One tractor destroyed. Probe launcher destroyed. Crew casualties heavy, at least twenty dead and one-hundred injured."

BRIDGE, KLINGON CRUISER *ANTAGONIST*

"He found the mine, Captain K," the engineer shouted.

"How close is he to the shuttle?"

"Close enough by now."

BRIDGE, FEDERATION CRUISER *ORISKANY*

"Klingon shuttle dead ahead! Captain Spencer, if that is a suicide shuttle, we are all going to die!"

"Nonsense, Commander McCarthy! It is not even moving. Get me a damage report on what that mine did to us, and steer a course for home. How soon will you have phasers recharged? Maybe we can pick off that shuttle as we go by."

"We have only got one phaser left, and it is not recharged. Warp engine power is down to thirty-three percent. We will be lucky to get out of here at all."

"Okay, so I was not expecting the mine. It is a good trick, and I will use it myself someday. But we hurt the Klingon bad enough so that he cannot pursue us. That shuttle is the only thing between us and home."

Spencer returned to this command chair, being careful of the bruises that resulted from being thrown across the bridge when the *Oriskany* hit the mine.

"You'd better look at the screen, Captain Spencer, because that shuttle is releasing drones and our number one shield is still down."

"I hope I have got enough cash on me. That Kaufman eats like a Kzinti."

DEBRIEFING ROOM, STAR FLEET ACADEMY

The Commander looked at the four cadets with a disapproving eye. "I hope that you have discovered the folly of tackling a Klingon head on, Cadet Spencer. Even if you can exceed his firepower, he has other things that he can do."

"Mines can be dangerous to your health," Cadet McCarthy advised sardonically.

"Even single mines can be," admitted Cadet Kaufman, still embarrassed over discovering that the Federation log-buoy he

had recovered at the end of the simulation exercise was a 30-megaton bomb.

"You should have turned away before overrunning him, Cadet Spencer," the Commander explained. "You would have avoided the mine and his rear-firing weapons."

"I know, but he did not fire his rear phasers!" Spencer exclaimed.

"An interesting point. Why not, Cadet Kaufman?" The Commander asked. "You had the energy in the capacitors."

"I know, but I did not think it necessary after he hit the mine and the scatter-pack released," Kaufman shrugged. "His ship was completely destroyed by those attacks, and my phasers would not have added much to the attack."

"Hmpf! I would have thought you would have made up something grandiose, like concern he might launch a suicide shuttle at you," the Commander replied. "At least you were honest enough to admit you were lazy."

"My idea of setting the engines on a scatter-pack shuttle for minimum speed and leaving it as a sort of captor mine worked pretty well," the engineer beamed.

"Yes." The Commander reflected, deciding that now was not the time to tell the cadet that he had rediscovered a standard tactic, "I would like to have a complete set of blueprints on my desk by Monday at 0800 hours." The Commander tapped his pipe into the ashtray and smiled at his cadets.

"Where will you be going for dinner?"

"Spencer's taking us and four young ladies he knows to the Gorn Club," Kaufman remarked. "I am picking up the bar tab because I fell for the old 'mine in the log-buoy' trick." The log-buoy mine was one of several artifacts of the academy, designed to keep the cadets on their toes. The Commander often thought that the fleet should deploy something of that type.

"Just so you have full reports to me by 0800 hours Monday. Next time, you'll use the refitted ships. Dismissed." ★★★
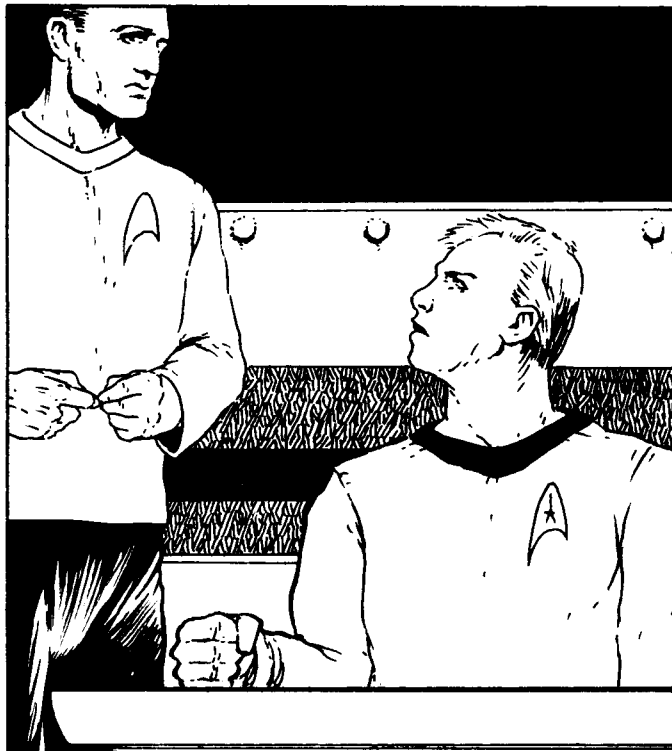
With *NEXUS #8*, the format of the Academy changed. Each session focused on a specific subject. Players (and the term papers file) contributed comments that SVC wove into a story.

EXPANDING SPHERES

The Commander cleared his throat and rapped his pencil on the podium.

"Today I would like to take up the topic of the expanding sphere generator. As you all know, from time to time Lyran ships appear on our frontier, and Federation ships operating in Kzinti territory often encounter them. As cadets and future Star Fleet officers, you should know how to deal with this threat.

"Can someone give me a basic conceptual description of a Lyran ship?" the Commander asked. "Yes, Cadet Hatch?"

"A Klingon without drones but with an ESG."

"Excellent, and exactly the point. If you can deal with a Klingon, and understand the ESG, you won't have any trouble with the Lyrans.

"Cadet Olesen, you had a comment?"

"With all of those phaser-3s, I would consider the typical Lyran a more powerful short-range opponent than a Klingon."

"A point you can discuss in a 5,000 word thesis due tomorrow, Cadet. There are also the minor points that Lyran ships are somewhat better able to absorb damage and remain combat effective than Klingon ships of the same classes, have weaker defensive phaser capabilities to the rear, use phaser-2s on their smaller ships and phaser-1s on their large ships and command/leader classes, and, of course, there is no chance of a mutiny." The Commander smiled.

"Now, we all know what an ESG is and how it works," the Commander went on. "Can someone give me a tactical analysis?"

The engineering cadet in the front row turned off his calculator and waved his hand toward the Commander, who then nodded.

"Expandable energy field damaging anything it touches," the engineer began. "Primarily four uses: three defensive and one offensive.

"The defensive implications are that it will destroy incoming drones, keep fighters outside of the effective range of their phasers, and keep enemy ships from closing since they would receive facing shield damage on the approach.

"The primary offensive implication is that it can be used to ram enemy ships." The engineer then turned his calculator back on and resumed working on his neutronics homework.

"Thank you for the dissertation," the Commander acknowledged. "Cadet Hack, just why is this so important?" the Commander asked of the youngest cadet in the room.

"The traditional means of resolving combat," Cadet Hack explained, "is to close to short range and clobber him. With the ESG you can't afford to do that, since the Lyran ship, class-for-class, is the equal of the Federation ship and has the ESGs to boot. Getting hit with an ESG on the way to a death duel gives him too much of an advantage."

"Excellent, Cadet Hack. Now, if the ESG is causing all of these problems, what can be done to knock it down?" The Commander scanned the classroom and picked on a likely target — Cadet Spencer.

"Sir. Small explosive mines prove very useful. They can be positioned and the enemy ship lured across them."

"Correct but inadequate," the Commander cautioned. "Cadet Thompson, do you have a more complete answer?"

"Yes, sir," Cadet Thompson responded, leaping to his feet and counting off the methods. "The point is to get a lot of small objects in the way of his field. These can include fighters, drones, mines, suicide shuttles, asteroids, etc. If worst comes to worst, have two or more ships ram the field at the same time, minimizing the damage to each."

"Name one method a ship commander can use to increase the number of objects for the field to encounter?" the Commander asked. "Cadet Crull?"

"Scatter-packs, if properly employed," responded the cadet. *"Elaborate, Cadet!"*

"Set the packs to release at 40,000km. He will then hit the drones and the shuttle itself."

"What if you don't want the shuttle to be destroyed?" the Commander demanded.

"You could send it in from a flank, but if he wants that shuttle, he can get it with his phasers. I'd just as soon use it against the sphere."

"Of course," said the cadet with the green loops of a Marine on his epaulettes, "setting a scatter-pack to release that close leaves it open to destruction by a single overloaded disruptor at 80,000 kilometers."

Cadet Crull grimaced at the thought of being shown up by a Marine who shouldn't even have been in a command class in the first place, but looked relieved as the Commander nodded and turned to the other side of the room.

"What is the key element of anti-ESG tactics?" the Commander demanded of a cadet in the back row.

"Timing," responded Cadet Pini.

"Explain."

"The ship probably has two ESG systems," Cadet Pini began. "Each can remain in operation for a specific period of time, then must remain out of operation for a predictable period of time. If the field is knocked down before its time is up, there will be a gap before the next field is activated. If the second field is activated when the first one goes down, the gap before either field can be raised again will be much larger."

"And the point of this is?" the Commander prompted.

"That you will probably only get one chance, or can only afford to buy one chance," Cadet Pini answered, "and that you have to carefully time when you want that field to go down."

"Thank you," the Commander answered. "Cadet Hunter, did you have a comment?"

"Yezz, sirr," purred the big Kzinti exchange student sitting in the front row. "We find it necezzzaryy to coordinate our drrone attackzz so that all drronezz arrrive at the field boundarry at the zzame inzztant. Alzzo, zzome of ourr commanderzz prreferr to rram the field zzquarely with theirr zzhip, launching drronezz afterr the field izz down. Zzome fighterr zzquadrronzz will team up and all czharge the field at the zzame instant so that damage to each izz minimal. Arrmorred dronezz can be highly uzzeful in deactivating the field and complicate the Lyrran's defenzze, ezzpecially if you can arrrange for a zzingle type-IV zzlug drrone to impact the fields first. Alzzo, a carrrefully timed zzhatterr pack of type-VI drones can be effective."

"Thank you for your contribution, Cadet Hunter." The Commander noticed with some annoyance that Cadet Kaufman was dozing.

"How would your prized retrograde tactics work in this case, Cadet Kaufman?" the Commander snapped, tossing a piece of chalk in a high arc to land in Kaufman's lap.

"Excellently of course," Kaufman snorted, shaking himself awake. "Although, of course, they must be adapted to the situation in question." Catching the engineer's eye, Kaufman tapped out *"what situation?"* with his fingers. The engineer silently mouthed *"E S G."*

"Just what were we talking about, Cadet Kaufman?" the Commander asked with dripping sarcasm.

"Why, combat against a Lyran ship armed with ESGs, of course," Kaufman deftly replied. "In which case the Retrograde Tactical System will work very well. Simply back up, leave lots of mines behind if they are available, and pound his shields with proximity photons from long range."

"But what if you are *defending* a planetary system, Cadet, and you can't back up?" The Commander had Kaufman in a corner.

"Photons and long-range phaser fire will still work, sir," Cadet Kaufman responded. "Dance with him. Keep your speed above warp two point seven. Keep out of his way, and hit him when you can. Eventually, you'll hit one of the generators, and then you have him." Kaufman had escaped once again.

"Cadet Hack, do you have anything to add?"

"Be sure to end your attack runs 40,000km or more from the Lyran ship, or he will activate one of the fields and catch you from behind. You have to keep track of when they recycle.

"Also, when you get into close combat, hit-and-run raids against the generators can be worthwhile.

"Finally, you can program the navi-computers for station-keeping or evasion, since that will keep you out of his range."

"Thank you, Cadet. Anyone else? Cadet Smith?"

"Grab a small Lyran ship with a tractor, and shove him into the big ship's field," the bearded cadet responded.

"Poetic justice, if nothing else," the Commander noted.

"What should you do if you suddenly find yourself in a position where you will be rammed by an ESG?" the Commander asked.

"Do a high energy turn," suggested Cadet Greenberg, her musical voice in sharp contrast to that of the male cadets.

"Fire everything and hope for the best," suggested Cadet Thompson. "You might weaken the field or knock out the generator."

"Save your fire to use at point-blank range," Cadet Spencer countered.

"The two of you owe me 5,000 word reports debating that issue," the Commander challenged. "Anyone else?"

"Keep your speed up, and you can get away from him," Cadet Smith pointed out. "Get anything you can in the way to reduce the field's impact. This might include dropping a dummy or live mine from the shuttle bay if you do not have any shuttles. A three-quarters-armored type-IV drone held in the rack until this point could be a life-saver. The point is to get as much in the way of the field as you can and to have as much of it capable of damaging the ESG generating ship as possible. Kzinti ships have a big advantage in this regard due to their large numbers of drone racks. Launching four type-IV drones each with a single external armor module and a shuttle locked on a seeking trajectory towards the Lyran will result in his being faced with five seeking targets after ESG impact by any but the most concentrated spheres. While he could destroy any one with a single phaser-3 shot after ESG impact, and indeed must, he grants the Kzinti ship direct-fire superiority at the decisive moment."

The Commander turned to a new file folder on his podium. "Let us assume, cadets, that you are a staff officer of a squadron being sent to an area where Lyran ships could be expected. What equipment would you recommend to the squadron commander?"

"Fighterzz," snarled Cadet Hunter.

"Ships equipped with multiple drone racks," responded Cadet Spencer.

"Rapid fire drone racks," corrected Cadet Thompson, known to favor the Kzinti ships in the simulators. He and Hunter exchanged some private joke that sounded like a cat fight.

"Extra drones," added Cadet Crull.

The Commander turned to another file. "What are some tactics a Lyran commander would use, beyond the basic defensive and ramming maneuvers. Also, what are some of the tactical limitations of the ESG?"

"A devastating attack," Cadet Crull began, "can be conducted by ramming the enemy ship with the ESG, firing all

weapons at short range with full overloads, over-running the enemy, firing rear weapons, then switching on the second field and dragging it over him to cause even more damage."

"Excellent."

"Have two ships charge the enemy," the engineer suggested, "one with his fields on and the other with the fields off. When the enemy is rammed with the ESG and the fields go down, have the second ship activate its fields and ram again. This buddy system can also be used defensively, with the second ship effectively acting as a spare ESG."

"Timing is very critical," Cadet Annett pointed out. "Since he has to activate the field before it becomes effective, so the second ship must activate its field before the first field goes down. Since both ships can't have their fields on at the same time, you might be able to force the first ship to voluntarily drop his field before he has used it."

"Or at least get the second ship to cancel its attempt to raise its own field, which will impose some later delays," the Marine added.

"The problem of field interactions can keep a Lyran fleet spread out," Cadet Thompson suggested. "They must either concentrate in one spot, where they are vulnerable to explosions and minefields, or they spread out, allowing you to destroy them one at a time."

"Turn the thing off if you hit a minefield or asteroid belt," Cadet Pini cautioned.

"Actually, with careful timing, the ESG makes the Lyrans the premier sappers in the galaxy when it comes to breaching minefields around defended localities," the Marine noted. The Commander glared at the Marine cadet, who was supposed to be auditing the class for familiarization, not taking part in it.

"Trrap their fighterrzz between fourr orr morre zzhips," Cadet Hunter suggested, "then crruzzh them."

"All excellent responses, Cadets. You have done your work well." The Commander flipped to the last file.

"What special tactics could be recommended to our allies?"

"The Hydrans have it easy," Cadet Hack commented. "Their hellbores can knock down the fields and allow the fighters to close."

"Rreduzze the field with drronezz," Cadet Hunter recommended, "then charrge the zzhip and launch morre dronezz afterr penetrrating the field."

"Tholians," Cadet Spencer suggested, "could use web-spinning fighters to lay web and force him against it. This does mean that there must be something to which the fighters can anchor the web so that it can be charged, but other Tholian ships can provide this function. Then ships and fighters can penetrate the field through the web. Also, transport mines inside his field from a ship in the web; the web will protect you from the mine blast."

"We Gornss," Cadet S'Litz, the chunky Gorn exchange student, pointed out, "can eassily engage with our plassma torpedoess. Our shipss are tactically immune to the ESsG."

"The same thing goes for Romulans," the engineer pointed out, "and for the ISC, who can use their Pulsar weapon from a distance and, in fact, cannot use it at all from the radius of the sphere."

"The Romulans are not entirely tactically immune to the ESGs," the Marine noted. "They have to give great consideration to how to use their cloaks since they will provide no protection against the sphere. Instead, a cloaked ship will find that the device aids the ESG-equipped ship in killing it.

"At least," he looked sheepishly at the Commander, "that would be my guess."

"Cadets," the Commander extolled, "I am well satisfied with your study of this subject and am certain that your performance in the battle simulators over the next 24 hours, during which we

will have continuous training operations, will reflect your thoughts." The Commander paused while the class groaned.

"As usual in the case of surprise drills, tonight's movie will be held over for a special screening next week, and you will be allowed to send one-minute taped one-way messages to your dates for the evening from your ships. Of course, those of you who are dating each other," the Commander paused to note the half-dozen females in the class of 30 cadets, "can simply wave to each other from across the bridge.

"And now, your assignments. We will be using five ships in teams of six cadets.

"Cadet Spencer, please take your team to the *Oriskany*.

"Cadet Kaufman, your team will be flying the standby Federation destroyer today, I have a team of regular Federation intelligence officers to fly the Lyrans. You can still take our two visitors with you." The Commander glared at the engineer and the Marine cadets.

"Cadet Thompson, your team and Cadet Hunter will take the Kzinti cruiser. You can translate for him.

"Cadet Pini, your team will have the destroyer *Kublai*.

"Cadet Smith, your team will have the frigate *John Paul Jones*.

"You will be debriefed after the exercise is over. Dismissed."   ★★★

PLASMA TORPEDOES

The Commander stopped at the front row of desks on his way to the podium in order to exchange a few words with the cadet wearing the red engineering loops on his epaulets.

"Would you see if you can keep Kaufman awake today? This is serious business."

"I'll try sir," the engineer answered, "but you have to remember that he was born on the colony planet Chicago VII. Those people have slept 20 hours per day for generations."

"I know it, Cadet," the Commander frowned, "but they can stay awake when they have to. See that he does." Turning, the Commander stalked to the podium and signaled for the attention of the class.

"Today, Cadets, we must deal with one of the most important subjects you have ever encountered: The plasma torpedo. As you know, this weapon is the primary armament of our Gorn allies and Romulan enemies. It is also used by the recently contacted ISC and, if somewhat less often, by pirates and a handful of Federation ships.

"Let us begin by defining the fundamental principles on which plasma torpedo tactics are based. What are these?" The Commander began calling on cadets at random.

"They are seeking weapons of tremendous power which lose strength with range," the engineer pointed out.

"They are exztremely fazzt," Cadet Hunter, the Kzinti exchange student, purred. "Over warp three. And you can't tractor them like you can dronezz."

"The dang thingss take 50% longer to arm to full power than your photonss," muttered Cadet Sslitz, the bulky Gorn exchange student.

"The most important factor is the use of wild weasels to distract them," insisted Cadet Smith.

"Short-range combat extends to 100,000 kilometers, beyond the range of overloaded weapons," suggested Cadet Greenberg.

"The use of pseudo-torpedoes compounds the tactical complexity," responded Cadet Crull.

"They don't work unless you get in close," Cadet Hammond insisted, "and the slower rearming time means that a Federation ship can beat him to death while he's reloading."

"Their strength can be reduced by phaser fire," commented Cadet Spencer.

"They have several firing options besides normal launch," the cadet with the green loops of a Marine on his epaulets noted. "Enveloped, which hits all shields equally, can exploit a down shield as well as increasing the overall damage. Shotgun enables a single torpedo larger than type-F to engage multiple targets. Finally, they have a direct-fire option."

"All excellent responses, cadets. I won't bother assigning 5,000 word dissertations because, as we all know, someone got into my computer over the intercom and found out about the 24-hour training drill that begins later today." The Commander paused for dramatic effect.

"As Cadet Smith has pointed out, the most important factor in plasma torpedo tactics is the use of wild weasel shuttlecraft." The Commander turned a page in his notebook. "Cadet Smith, since you made that point, would you provide an elaboration from the point of view of a ship armed with these weapons, please."

"Certainly, sir. It is logical to assume that he will have one or more wild weasels ready at all times. You must identify the opposing ship to know how many shuttles it carries. Then you must encourage him to use them as quickly as possible. Moreover, you must keep your own ship intact until he runs out of wild weasels and you have him at your mercy."

"Excellent, Cadet," the Commander responded. "And by the way," noting the cadet's non-regulation beard, "the Commissary is having a sale on razor blades, just in case you're interested."

"Now, what is the basis of all tactics?"

"Choices," responded the engineer.

"Define the term, Cadet," the Commander snapped.

"In any tactical situation, there are a number of possible solutions to choose from," the engineer explained. "Each of them has advantages and disadvantages, costs and benefits. A commander must select the most appropriate choice based on probabilities, possibilities, and how many times and under what circumstances each option can be taken."

"How does that relate to the use of wild weasels against a plasma-armed ship?" the Commander demanded.

"Since wild weasels may, on a given ship such as one of our destroyers, be in very short supply, one must consider other alternatives to their use."

"Acceptable," the Commander turned his gaze upon another target. "Cadet Cree, what alternatives to wild weasels are available."

"In basic terms, sir, you can evade it, outrun it, or shoot it with phasers."

"What else?"

"Electronic warfare," the engineer proposed.

"But plassma torpedoess have their own electronic warfare capability," Cadet Sslitz pointed out.

"Still, it can help reduce the damage." the engineer responded.

"Only with a lot of power, Human, and that power is better spent on other things." The Gorn leaned back. "You've been fighting Klingon drones too long; these aren't the same thing."

"What else?" the Commander said. "Cadet Spencer?"

"Let it follow you through an asteroid belt or into a planet."

"What else? You people are missing the obvious!" the Commander howled. "Cadet Crull?"

"Let it hit you, sir?" Cadet Crull suggested tentatively.

"Yes, if the situation warrants, that's exactly what you should do." Running a hand through his hair to return it to order, the Commander turned another page in his notebook.

"The long recycling period for plasma torpedoes creates a fascinating element of their tactics," the Commander explained. "Comments, Cadets?"

"With one launcher, such as on a War Eagle or unrefitted Gorn destroyer, your timing is very easy to determine, even with a pseudo-plasma," Cadet McCrory explained. "With multiple torpedo mounts, such as on the Gorn battlecruiser, this becomes more flexible. You can launch all the torpedoes at once, or stagger them."

"The small type-F plasma launchers are extremely flexible," Cadet Spencer responded. "They can be charged cheaply, held in the stasis tubes for no cost at all, and launched in waves."

"Returning to our discussion of tactics consisting of a series of choices. Cadet Smith, you have indicated the benefits of exhausting the target's supply of wild weasels. How do you propose to do that?"

"Put him in a situation in which he needs to use one, and make sure no other alternatives are open to him," the bearded cadet responded. "Of course, he will always have the option of letting it hit him, which is exactly what I want it to do."

"You have raised two topics, Cadet. Forcing him to do something, and then limiting his options. Let's take the first one. How do you put him in that situation?"

"Obviously, sir, by launching plasma torpedoes at him," Cadet Smith responded.

"Express this in terms of the choices that you have available," the Commander instructed.

"Obviously, if you launch every torpedo and every pseudo-torpedo, you have nothing left to launch so he will almost automatically launch a wild weasel. For this reason, this is not a valid choice."

"On the contrary," interrupted Cadet Crull, "it could be your best option at long range."

"Explain, Cadet!" the Commander barked.

"At long range it is easier to evade or phaser a single torpedo than do anything else," Crull explained. "The only way to make him use a wild weasel when you are at long range is to give him more torpedoes than he can handle."

"Your comment, Cadet Smith."

"The more logical approach is to launch the torpedoes one at a time, trying to raise the ante until he launches a wild weasel," Smith explained. "Then the shuttle must be destroyed by phasers. The torpedoes will arrive one at a time, causing more collateral damage. Of course, the ship which launches the wild weasel has some control over which of his shields will receive the collateral damage, and using reserve power can tac a different shield in place to spread the damage more in this case.

"If you have more torpedoes, which would only be the case in one of the heavier battlecruisers, you can repeat the process immediately. If not, you must evade direct combat until you can reload. The process is simply repeated until he runs out of wild weasels."

"This assumes, of course," the Commander prompted, "that he has no alternative but to launch wild weasels."

"That, sir, depends primarily on his speed," Cadet Smith explained.

"How so?"

"Sir, if he is traveling more than warp 1.5, he cannot launch a wild weasel in any event, unless he suddenly drops his speed. If he is going at fairly high speed, he can outrun your torpedoes, unless you were clever enough to launch them from his bow at close range."

"Even then he can HET," interrupted the engineer.

"Quite so, Cadet," the Commander noted. "What tactics are available for the pseudo-plasma torpedoes?"

"Basically two, sir," the engineer responded. "Launch them at the same time as the real torpedoes to divide return fire, or launch them at different times to confuse the timing."

"Adequate, Cadet," the Commander nodded.

"Can someone give me a brief description of wild weasel tactics?" The Commander scanned the room and selected Cadet Thompson.

"A very self-limiting escape maneuver that should be considered almost as a last resort," Thompson answered.

"Why is that?"

"Shuttles are expensive and in limited supply," Thompson explained. "Using one as a wild weasel forces you to drop speed and surrender the initiative to a powerful opponent. It also silences your own weapons."

"Cadet Cree, you had a comment?"

"You can voluntarily void your own wild weasel by waiting until the torpedo passes, then accelerating rapidly."

"Yes, Cadet. I believe that was the subject of the term paper you submitted last week.

"Cadet Frazier, your hand was up?"

"Yes. I'd like to point out that the standard procedure is to send the wild weasel away from the attacking weapons. Sending it, instead, toward them will release your own weapons sooner since it will be destroyed sooner."

"An excellent observation.

"Cadet Hack, you had something to add?"

"Yes. When using wild weasels, it is generally better to keep moving, even at low speed, rather than use tactical maneuvers, because movement will allow you to evade the collateral damage zone more rapidly."

"How would plasma torpedo tactics be different on a ship that has only one launcher?" the Commander asked, turning to another page of his notebook.

"Very restricted," answered Cadet Hack, "since you have fewer weapons to use in drawing his wild weasels."

"What is the best thing to do about a wild weasel?" the Commander asked.

"Destroy it immediately," responded Cadet Delilah, the green Orion beauty seated next to Cadet Smith.

"Are there no other choices, Cadet?"

"None worth taking, sir," her sultry voice answered. "They've probably read Cree's term paper. Anyway, it will keep the explosion close to the ship and allow increased collateral damage."

"Acceptable, although different circumstances generally dictate different tactics.

"What effect does range have on the use of plasma torpedoes? Cadet Smith?"

"Beyond 120,000 kilometers the circumstances must be very special, or it will be impossible to score a hit."

"Why is that?" the Commander asked.

"Because he can turn away without using a high energy turn, and with that much range the torpedo cannot catch him before its power is diminished," the bearded cadet answered.

"Under what circumstances could you expect to score a hit from that range?"

"Only if the target was stationary, such as a base, or very slow, such as a freighter. If the circumstances were desperate, you might chance a bolt."

"Anything else?" the Commander asked. "Cadet Pini?"

"As with all weapons, sir, sometimes you don't really want to score damage," Cadet Pini answered. "You just want him to leave.

"The weapon can also be used to deter a closer approach. A ship closing at warp three would effectively be deterred by a torpedo launched from as much as 200,000 kilometers, since he would meet it well within its effective range. Knowing that, the ship would stand clear or disengage."

"Cadet Hack, you had a comment?" the Commander acknowledged the young cadet.

"Sir, I would recommend doing the least obvious thing."

"Which is?" prompted the Commander.

"Go ahead and launch a torpedo at long range, a real one, sir," Cadet Hack explained. "He will assume that you wouldn't waste a real torpedo and may ignore it. It should still hit with enough force to soften up one of his shields."

"Cadet Sslitz, would you care to describe the standard Gorn tactic with plasma torpedoes?"

"Yess, ssir. It iss known to you in the Federassion as the 'Gorn Anchor.' The tactic can be devasstating.

"After clossing to at mosst 20,000 kilometerss, attasch a tractor beam to the target sship," the Gorn cadet began. "Thiss preventss him from running or launsching a Wild Weassel. At that point, launch a full sspread of plassma torpedoess at the target sship. It will be desstroyed."

"Cadet McClure, if in command of another plasma-armed ship, how would you deal with such a tactic?" the Commander asked.

"Attach my own tractor beam and launch my own plasma torpedoes at him," the burly cadet responded, wiping his face with the towel perennially around his neck. Being from the colony planet Houston V, the normal 20°C temperature of Federation ships kept him rolling in sweat.

"That is counter-productive," the Marine insisted. "If you have the power to counter-tractor at such range, you have the power to break his tractor after he launches his torpedoes, allowing you to accelerate away, perhaps after launching your own in his face."

"Cadet Chitwood, if in command of a Federation ship, how would you deal with such a tactic?" the Commander asked.

"In one of several ways, depending on the situation," the medical corps cadet responded. "To begin with, I wouldn't let him get that close. I would fire overloaded photons at 40,000 kilometers and then turn away."

"And if that wasn't practical?" the Commander prompted.

"Fire all of my weapons, then use reserve power to negate his tractor beam and launch a wild weasel."

"My sship hass resserve power, too, Human," Cadet Sslitz interjected, "and I would always allow more power for the tractors when approaching you."

"I can also plan for more power, Gorn," Chitwood responded, "and if you allow enough to beat me, you won't have enough power to catch me."

"If my plassmas are already armed, I will alsso have more power for tractorss to sstart with ass the holding costss for plassmass iss sslight compared to your photonss. Alsso, many plassma-armed sshipss typically have a sslight edge in power compared to non-plassma sshipss of ssimilar classess."

"Cadets!" the Commander barked, cutting off the debate. "Let us assume that you cannot break his tractor, Cadet Chitwood. What now?"

"Since my photons will have brought down his facing shield, I can send marines to tackle his tractor beams."

"A desperate gamble, but one that might work if he has no reserve power available to block the attempt.

"Now, cadets," the Commander said as he turned to another page in his notebook, "how are fleet tactics affected by plasma torpedoes? Cadet Olesen?"

"The ships of the squadron must watch their separation carefully when a wild weasel is in use. They must steer clear of the blast zone."

"Thank you. What else, Cadet Preston?"

"Have all ships use plasma shotguns, targeting their weapons on different enemy ships. This will overwhelm their defenses."

"Launch all of your pseudo-plasmas at the most valuable and obvious target, and simultaneously launch all of the real ones at a worthwhile target at a longer range," Cadet Hack

expounded. "This pattern, which is part of the system that I refer to as the 'tactics of a hypothesized enemy error' in my thesis, will usually result in every phaser in the enemy fleet being turned on the fake plasmas. Note that the plasma launching systems create a slight delay between the launching of a real torpedo and the pseudo from a given launcher."

"All right, now, Cadets," the Commander said as he turned to yet another page, "what steps should be taken against plasma-F-armed fighters?"

"Kill them the insstant you ssee them!" hissed Cadet Sslitz.

"Use the plasma shotgun to scatter them," suggested Cadet Townsend.

"Have your own fighters dogfight them," Cadet Spencer insisted. "Plasma-F-armed fighters are usually pretty poor dogfighters."

"And what about plasma-F-armed fast patrol ships?" the Commander asked.

"The best thing would be to leave," the engineer muttered.

"Or retrograde," Kaufman responded.

"Ssend your own patrol sships," Cadet Sslitz proposed, "*then* leave."

"Attack them head on, and smash them one at a time," insisted Cadet Hicks.

"Cadets, your answers are about as humorous as a flotilla of Centurions bearing down." The Commander fixed his gaze on Cadet Smith. "Do you have a serious suggestion, Cadet?"

"A battle between two ships and a flotilla of plasma-F-armed PFs will be very bloody, sir. They can have 16 to 28 plasma-Fs ready to use, depending on whose PFs and what variant you are facing, and they can reload them. You can't really use maneuver to avoid combat since the PFs are faster and more maneuverable. Also, they can operate at warp three while keeping weapons ready to use. Wild weasels aren't really a solution since they force you to drop to low speed and the PFs will overwhelm you with phasers.

"The only viable option, other than retreat, is as Cadet Hicks recommended: kill them one at a time with massive blasts. It would be advisable to keep a few phasers for anti-plasma work and to use wild weasels only in emergencies."

"We'll be working against Romulan PFs during the battle drills later today," the Commander observed.

"Moving on, Cadets," the Commander turned to another page, "when should enveloping plasma torpedoes be used?"

"It is hard to use them in ship-vs-ship duels," Cadet Thompson observed, "because of the extra power required."

"They do have the effect," Cadet Cree interjected, "of scoring more internal damage."

"They are excellent against bases, sir," Cadet Smith answered, "because of their enhanced collateral damage. Starbases have plenty of wild weasels, but cannot move out of the blast zone."

"Particularly on damaged shields that are turned away from you," Cadet Olesen pointed out. "The mere threat of an enveloping plasma can channel the enemy ship's energy into that shield."

"And a final matter on this topic. What effect do scouts and SWAC shuttles have on plasma torpedo tactics?"

"Their electronic warfare capability can reduce the warhead effect and possibly cause a complete miss if the torpedo has been released to its own guidance or the controlling ship does not have any power for ECCM. Although to gain the possibility of a miss requires a lot of power and the assistance of lent ECM from a scout as well as legendary efforts on the part of the crew and the weapons officer," the engineer pointed out.

"Of course, if the plasma ships have their own scout supporting them, this becomes less likely."

The Commander nodded and turned a page in his file.

"A serious tactic for plasma squadrons," the Marine noted, "is to have one ship, frequently a small one, hold back with maximum ECCM. The other ships then transfer control of any plasmas about to hit their targets to that ship. This allows the ships closer in and launching the plasmas to use maximum ECM. These ships could use erratic maneuvers after they have launched their torpedoes to further lessen the effect of direct-fire weapons fired at them. The small ship that provides the guidance to the torpedoes then becomes the only one that a plasma scout must provide ECCM to, making it impossible to cause the plasmas to miss their targets, and reducing the chance of any near misses to less than 17%. Especially as the small ship can be far enough back that it cannot even be jammed with offensive electronic warfare."

The class fell into stunned silence. What was this Marine cadet, taking the course only for familiarization, doing poaching on their turf? The Commander searched for someone else to call on and found a traditional target.

"The use of SWACS allows the 'Federation Yo-Yo' tactic," Cadet Crull explained, "wherein the SWACS drag the plasmas back and forth through the formation, giving all of the escorts a shot at them with phasers."

"Oh, is that what that is?" Kaufman wondered aloud.

"Cadet Kaufman, what did you think the 'Federation Yo-Yo' was?"

"Why, Cadet Spencer, of course!" The entire class broke out with laughter.

"That's enough for today, Cadets. There is not sufficient time to discuss the rapid arming capabilities of the larger torpedoes, the plasma-D and its launch system, or the tactical uses of the plasma bolt today, but we will take them up in a later block of instruction. After class is dismissed, everyone is to report immediately to your assigned simulator ships. We'll be conducting a series of plasma engagements. The officers and crew of the *Reptilicon*, which as you know is visiting Star Fleet Headquarters at this time, will be operating the Romulan ships. This class is being cut short to accommodate their schedule. After the 'war' is over, you will all be guests of the Officer's Club on board the *Reptilicon*. A tour of the ship and a brief cruise has been arranged.

"Cadet Sslitz, for obvious reasons we'll have to excuse you from this battle, but I believe that your father, Commodore Sslith, has a position for you in the 'enemy' squadron.

"Since there are no further questions, proceed to your assignments. Dismissed." ★★★

PLASMA TORPEDO TACTICS
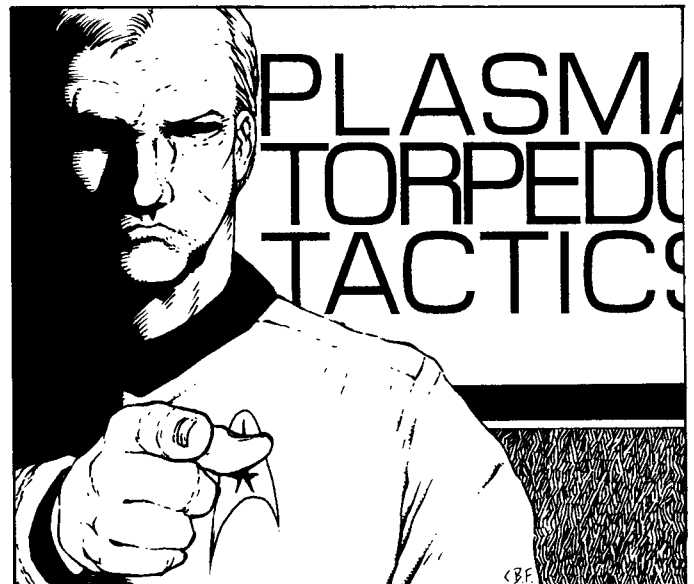
THE CLOAKING DEVICE

The Commander watched as Cadet Pini dropped his salute, turned, and marched from the room.

"Not bad, so far," the Commander mumbled to himself. "Twelve passing grades, no failures; not a bad class at all — so far." These were the monthly "interviews" when each cadet was orally questioned about a subject that had, supposedly, been randomly selected.

Reaching for the intercom, the Commander hesitated for a moment to be sure that his desk was in order before pressing the button. "Send in the next cadet."

The door snapped open, and Cadet Jefferson Davis Smith entered, flaming red (non-regulation) beard lighting his way. "Cadet Smith reporting for examination, sir!" he snapped, coming to full attention.

"At ease, Cadet. Stand easy," the Commander made it a point to keep his eyes on the file on his desk as each cadet entered, seeming to look through the new victim's records for some hidden character flaw that would bounce him out of Star Fleet and into the Marines. Whatever the cadets would be judged on in this room, it was not their ability to march or stand at attention.

After just enough pause to allow any nervousness to spread, the Commander snapped his eyes to the Cadet's face and speared him with his unerring gaze.

"Cloaking devices, Cadet. You're supposed to be something of an expert on them."

"Hardly an expert, sir, but a serious student."

"That may be enough, Cadet." The Commander shuffled some meaningless papers kept on his desk for that purpose and pretended to find the one he wanted. It actually dealt with next week's schedule for the Faculty Bridge Club, but the Cadet couldn't know that.

"You don't have to be brilliant here, Cadet Smith, just competent. You'll become brilliant after some experience." This was the Commander's most disarming lie, carefully practiced from repeated use. The fact was that cadets did have to be brilliant. More than half of the Academy's graduates would never walk the deck of a starship, and of those few who became captains, more than 80% had been picked for that role during their senior year. Fewer than half of those picked, however, lived long enough to achieve the goal.

"Handy thing to have, Cadet, when you get yourself in a jam and can't get away."

"On the contrary, sir," Cadet Smith responded without hesitation, "any captain that used a cloaking device without proper preparations before hand, that is to say, without knowing before the operation started just when and where he was going to use it, is only asking to be hunted down and slaughtered like a trapped boar."

"And why, exactly, is that, Cadet Smith?"

"Because, sir, the device has a major disadvantage, that of blinding your own weapons, and if you are found, you can be severely damaged without being able to respond."

"How so?"

"Gorn ships have plasma torpedoes. Our modern ships have drones. If a lock-on is retained, these weapons become more devastating than in open combat because the target cannot fire back at them."

"But under cloak, there is a substantial possibility that any such weapons would explode far from your ship."

"Sir, I wouldn't bet my life on it."

"So beyond the obvious uses during an approach or ambush, the best time to use it is...?"

Smith came to a stiffer position of attention.

"In a deliberate, planned, action designed to evade the enemy and move beyond his search range or to reload weapons and continue the action."

"Excellent, Cadet," the Commander fairly beamed, "you have grasped the fundamentals of the device better than most of our line officers. Too many fail to realize that it is only a device, not a magic carpet to home port.

"Now, exactly what constitutes proper preparations for a deliberate cloaking device evasion maneuver? And let's dispense immediately with such cases as leaving him too damaged to pursue you and such obvious cases as a base that cannot pursue you."

"Several things, sir, as many as possible of which should be done, even if all cannot be.

"First, be as far as possible from the nearest enemy units."

"Why?"

"To make it harder for him to retain a lock-on, and to make it less likely that he can surround your area of probability and hem you in with mines or ships."

"Adequate. Obviously, this would not apply in the case of non-mobile enemy units. What else?"

"Second, tie down the main enemy units with your own seeking weapons."

"Sensible and obvious, although in the simulators most cadets flying Romulan ships like to wait and see their weapons hit the target."

"That can be suicidal, sir," Smith explained. "To use the cloak effectively there isn't time for enjoying the view. You need the time that he is dodging your weapon or pinned under his own wild weasel to break his lock-on." The Commander nodded for Smith to continue.

"Third, reduce speed, and program another speed reduction, possibly two, into the navigation computers for after you cloak."

"Elaborate!"

"The faster you are going, the easier it is for him to retain a lock-on. Slowing down before you cloak gives you a better chance to break it."

"But you said to reduce speed after you cloaked!"

"Before and after, sir. Before to increase the chance of breaking his lock-on, and after to give yourself another chance to break his lock-on if you need it."

"Very good, Cadet," the Commander genuinely smiled. "What else?"

"Fourth, have an armed wild weasel ready for release."

"Why?"

"To clean yourself of seeking weapons and provide increased protection from direct-fire weapons during the fade-out period."

"When should you launch it?"

"Just before or after beginning fade-out, sir, depending on other tactical factors."

"Go on, Cadet."

"Fifth, sir, allocate power to electronic countermeasures."

"Obviously to try and break his lock-on."

"Correct, sir," Cadet Smith responded. "Also, have all reserve power on standby. This can be committed to ECM for another attempt at breaking his lock-on, should one be required."

"Are you forgetting, Cadet, that there are limits on the amount of ECM you can generate?"

"No, sir! But it is not necessary to have maximum ECM before cloaking; increasing to maximum levels may break the lock-on. And there is another, more desperate, alternative."

"Which is?"

"Drop all or part of your own ECM."

The Commander glared.

"But, Cadet Smith, that would make it *easier* for him to keep track of you."

"Temporarily, sir, and I have not forgotten that a lock-on cannot be broken by improving conditions, but only by worsening conditions. By suddenly reducing your ECM, you lose nothing, but by suddenly increasing ECM with reserve power, you get another chance to break the lock-on. I call this technique *the ECM yo-yo.*

"It suggests another tactic, which I have termed *the roller coaster*. If the sudden drop in speed does not break his lock on, speed can be increased and then decreased again, possibly breaking the lock-on."

"Excellent, Cadet," the Commander commented. "Can you put all of that into a 'textbook' procedure?"

"Yes, sir. Reach your chosen position, slow down, drop the wild weasel, and activate the cloak to break the lock-on. If lock-on was retained, increase ECM to maximum and try to break it again. If he isn't using much ECCM, there might be enough power for two stages of increase, giving two attempts to break the lock-on. If that fails, slow down, gaining another chance to break the lock-on. If that fails, use the ECM yo-yo, possibly in two stages. If that fails, start preparing to come up, fight for one round of torpedoes, and then cloak again.

"The same procedures, of course, are used if you are using the device to provide time to reload weapons and resume the battle, rather than simply escape, although you did limit this discussion to evasion. Even so, the option to come up and fight will discourage effective pursuit."

"What if you were uncloaking, perhaps after a cloaked approach?"

"Plan the operation carefully, have wild weasels charged before uncloaking, and against Federation ships uncloak outside of the range of overloaded photons."

"What about your speed, Cadet?"

"Don't slow down any more than necessary to trigger another attempt, and once you break the lock-on, you should moderately increase speed."

"Why are you so concerned with speed, Cadet?" the Commander questioned. "Why not drop speed rather than use reserve power for ECM?"

"Because you said this was an evasion maneuver, sir. You have to clear the area before more enemy ships arrive to hem you in. If you are forced below warp 2 for very long, you probably won't get away without fighting again. If you plan to remain and fight, the preferred speed will be dictated by the situation."

"Excellent, Cadet." The Commander was impressed. So many cadets dropped too much speed under cloak and were trapped by hunter-killer groups.

"Anything else to add, Cadet?" the Commander prodded Smith to improve on his already spectacular performance.

"Use ECM drones during the fade-out period," Smith stumbled as he saw the Commander's eye brows arch, "if they are available, which presumably they would not be with a Romulan but they might be with a pirate, to blind the enemy."

"You're stretching, Cadet Smith," the Commander warned. "But to be complete I suppose you should have covered that.

"Anything else?"

"If there is an asteroid field, be within 100,000 km of it, but do not allow yourself to be trapped against it."

"Why go near it at all, Cadet Smith?"

"Because if all else fails, it could be your only escape."

"Explain, Cadet!" The Commander fixed Smith with the famous gaze that had sent many cadets to the Marines.

"If he still has a lock-on, bumping into an asteroid isn't going to make much difference. But the effective ECM provided by the asteroids themselves will generate another attempt to break the lock-on."
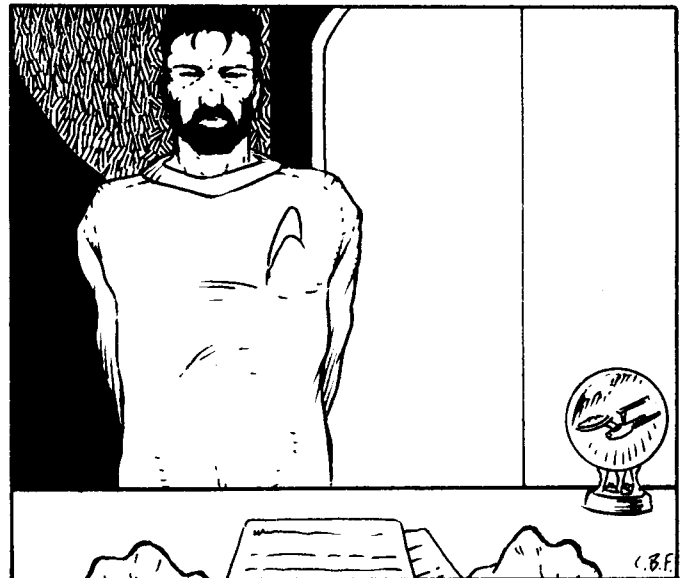
"Desperate, Cadet Smith, but something few people realize." The Commander pulled out the file holding plans for the new cafeteria. "Now, about mines..."

"If there is a minefield, sir, be well away from it with a clear line of escape to get around it before cloaking."

"Let me pose an obvious question, Cadet Smith. Why?"

"Sir. Because you can't avoid them, they do a lot more damage than asteroids, they expose your position, and they don't provide you with ECM benefits."

"What about your own mines, Cadet?"

"They can be useful in discouraging pursuit, sir."

"How would you employ them?"

"They can be very useful to eliminate pursuing drones. The method of employment in that case is obvious.

"To discourage pursuit, run at a 60° angle to his approach, then turn back sharply. You will create the impression that you have laid a mine somewhere across his path and then ducked behind it. The impression will, of course, be more positive with a real mine. If several ships are cloaking, they should spread out to lay mines and then converge behind them. The pursuit is probably too smart to run over the mines, but avoiding them will take time."

"Let's turn the tables, Cadet," the Commander picked up another piece of meaningless paper, this one dealing with the Academic Staff Pension Plan. "How would you deal with a ship that had just cloaked?"

"Increase ECCM to the maximum. Load all weapons, but fire the phasers only, and those only in rolling relays, to keep a crippling salvo loaded. Use narrow salvos to yield substantial damage; minor damage is almost worthless. Get closer to him, but avoid running directly over his last known position. If you can, hem him in with ships, physical obstacles, and mines."

"If he breaks your lock-on, Cadet Smith, but you get a new one due to some event, should you then fire all of your weapons in an attempt to cripple him?"

"Only if that will not leave you in a position where he can uncloak and fire at you before you can reload or evade.

"Frankly, sir, I'd have to suspect that any Romulan who had voided his own cloak was ready to fight again, and that he was trying to get me to unload my weapons in the least favorable circumstances."

"Excellent, Cadet. Dismissed." As Cadet Smith marched from the room, the Commander made a small and unique mark beside his name on the class list.   ★★★

DRONE TACTICS

The Commander walked to the podium and tapped his pencil on it for attention. The cadets ceased their quiet conversations and turned toward the front; even Kaufman awoke with a snort and sat up straight.

"Today, cadets, the subject of our discussion is drones," the Commander began. "This subject is very important. Drones are used by the Klingons and our Kzinti allies, as well as our own fighters, and many of our ships have at least some drone capability. They are also used by pirates, the WYN cluster, and fighters operated by the Lyrans and the LDR. Second only to the phaser and disruptor, drones are the most common weapon in the galaxy.

"As you know, the new warp-3 drones are rapidly replacing the older warp-2.7 drones. The older warp-2 drones, and the days when cadets joked that 'no one ever hit anything with a drone on purpose,' are long gone.

"Now, may I have a basic definition of a drone?" The Commander nodded toward the cadet with the red engineering loops on his epaulets.

"A self-propelled warhead delivery system which guides itself toward reflected scanner energy. Some advanced types can generate their own scanner signals; smaller anti-fighter types can guide toward the energy output of their targets."

"They arre the mozt efficaziouz of weaponz," Cadet Hunter interrupted. "For no enerrgy cozt, they will do more damage than a phazerr." The Kzinti exchange student began licking the fur between his claws.

"Alsso," Cadet Sslitz, the Gorn student seated beside Hunter commented, "they do not loze effect with increazed range."

"The basis of drone tactics is mass and timing," Cadet Gopin said. "Their principle drawback is that any given ship can only carry so many of them, so they must be used with care to avoid running out of them and being forced to disengage."

"Thank you, Cadets," the Commander acknowledged while shuffling through the papers on the podium.

"Under what conditions should drones be used?" the Commander asked. The Commander acknowledged a cadet.

"I have noted five specific cases, sir," Cadet Mizia began.

"Opportunity attacks, when a particular unit is in a position where it cannot defend itself. For example, sending a swarm of drones after a tumbling enemy ship, timed to arrive when its tumble is over.

"Attrition, when a stream of drones will wear the enemy down.

"Fleet defense, to protect against incoming drones. This is useful when your drone-launching rate is inferior to the enemy's.

"Evasion, to divert the enemy from your mistake.

"And finally the grand assault, when firepower is needed."

"Excellent, Cadet Mizia," the Commander commended. "Cadet Smith?"

"I note three cases for employing drones, sir," Cadet Smith began, "Tying down enemy weapons, surprise launch while enemy phasers are recycling, and overwhelming the enemy with massed launches."

"Very good, Cadet. Other comments?" The Commander asked.

"Concentrate enough drones on each target to provide a significant threat," Cadet Arbatrov advised. "You need enough to penetrate the shields and cause damage; about four is a minimum for a cruiser."

"Zupporrt yourr drronez with elementz of yourr fleet," Cadet Hunter responded. "And usz cheap drronez to lead the attack, to abzorrb the firrst and bezt of the enemy defenzes."

"They'll ID your drones and see the trick," the engineer countered.

"It'z amazing, human, but mozt don't botherr orr rrememberr," the Kzinti purred.

"Sselect issolated unitss," Cadet Sslitz suggested. "A fleet'ss greatesst defensses are in itss mutually ssuporting fire. If the fleet iss approaching in a linear formassion, attack the lead unit sso that thosse following cannot fire to protect it."

"Time your attacks for after the enemy has fired his phasers and other defensive weapons," Cadet Greenberg advised.

"ECM drones could be useful in conditions of marginal defenses," Cadet Kerr pointed out.

"Drones can cover a withdrawal," Cadet Gopin suggested.

"What is the most effective means of employing drones?"

"Waves!" echoed a chorus of cadets. The Commander began pointing to individuals for their comments.

"By spreading the drones over space and time, you avoid having a single mine or explosion destroy them all," Cadet Mizia pointed out.

"By having the drones arrive sequentially, damage to weapons is maximized by many small explosions," Cadet Crull suggested.

"How far apart should the drones be?" the Commander asked.

"Far enough apart to avoid a single threat but close enough together to reach the target before the phasers can recycle and so you can still hit the same shield," Cadet Hack answered.

"What is the best defense against drones?" the Commander asked.

"Direct-fire weapons, preferably phasers," the engineer answered.

"Shuttles can be released for additional defensive firepower," Cadet Raymond suggested.

"Point-defense phasers have only a 66% chance of a kill against most drones," Cadet Townsend pointed out, "and you may not have time for a second shot."

"Anti-drones should be the first line of defense," Cadet Heim insisted. "They work best at their longest range, fire fast enough to take on drones one at a time, and leave enough space for back-up weapons to intercept them."

"Avoid closing with drones," suggested the engineer, "as this reduces the time you have available to deal with them."

"Transporter bombs work the best," Cadet Gopin insisted, "although it may be difficult to place them properly. A Klingon D6 acting as a point ship could drop its #3 and #5 shields and use its transporters to place its four transporter bombs across the front of the fleet, effectively blocking an entire wave of drones."

"ECM can divert them," Cadet Hatch proposed, "detonating them at a considerable distance from your ship."

"Scouts can distract or jam them," Cadet Annett pointed out.

"Scouts can support with ECCM," Cadet Stein suggested, "or by jamming drones launched to intercept your own drones."

"Cloak!" snapped Cadet Smith, "after proper preparation."

"ESGs are very effective," Cadet Gopin commented.

"Use terrain to your advantage," Cadet Hack commented. "Asteroids and planets will stop drones more effectively than anything else."

"Erratic maneuvers can reduce the damage," Cadet Pinnell said.

"High energy turns can out-maneuver them," Cadet Crull suggested, "but this only delays them."

"From a *drone?*" the engineer gasped. "You're going to take a chance on shedding the engines to avoid a drone?"

"It would be easier to just move in retrograde," Kaufman suggested. "Select a speed near that of the drones. The drones will exhaust their endurance before they can catch you, while

your own drones will have a very high closing speed on enemy units approaching you."

"Drronez themzelvez are the bezt defenze," suggested Cadet Hunter. "A kill iz automatic."

"Dogfight drones are the best," Cadet Mizia insisted. "They don't take up sensor channels and can't be jammed by scouts."

"Fighters armed with dogfight drones are an excellent defense against ship-launched drones," Cadet Raymond proposed.

"Of what use are tractor beams in defense?" the Commander asked. "And none of you should fall into the trap of towing your own drones and then discovering that you jammed their seekers and they went inert."

"They can be used to grab an approaching drone and hold it until its fuel runs out," suggested Cadet Olesen.

"Or until a weapon is recharged," suggested Cadet Cree.

"You can rotate it into the firing arc of an otherwise unoccupied weapon," Cadet Raymond pointed out.

"Or toward a shield you can afford to lose part of," Cadet Hack added.

"Tractors can be used for offensive support, also," Cadet Townsend suggested. "By tractoring the enemy ship, you prevent his use of wild weasels and improve your own chances of a hit."

"It should be obvious that one effective defense against massed drone attacks is the wild weasel shuttlecraft," the Commander moved on. "Without repeating any of our discussions of this device from our previous session on plasma torpedoes, what conditions should be considered for its use."

"The relative tactical cost of its implementation weighed against the potential threatification from the approaching drones while giving consideration to the employmentification of the enemy units in the immediate vicinity of the present conflict."

"Thank you, Cadet Haig," the Commander responded. "Your esteemed ancestor would have been proud of your answer.

"Cadet Weisser?"

"Send your weasel away from the drones, not toward them," Cadet Weisser suggested. "This will maximize your time for making a decision. If there are few drones, you can destroy them with rear arc weapons, preserving the shuttle and leaving your forward weapons for the enemy."

"What other effects might this have?" the Commander asked.

"Using up endurance. Forcing them to use their high energy turn if you elect to void the weasel. And if worse came to worst, spreading them out over several firing arcs to allow more weapons to be used in defense.

"Destroy the weasel immediately upon its appearance, maximizing collateral damage," Cadet Smith said. "Freeing your sensors to launch more drones, and forestalling any surprise tactics."

"Cadet Mizia?"

"Avoid launching drones at ships that are able to use weasels. Pick out ships that are moving too fast or guiding their own weapons."

"Guiding their own drones?" asked the cadet with the green loops of a Marine. "What has that got to do with anything? You can transfer control of them to another ship and then launch the weasel."

"I meant in a single ship duel, of course," Mizia replied.

"Any other ideas?" the Commander asked. "Cadet Condon."

"Sir, launch the maximum number of drones in a staggered wave to force him to drop a weasel. Then cut the guidance to each drone just before it strikes the weasel. This tactic is unusual," Cadet Condon explained, "but it forces the enemy

ship to remain under the weasel's restrictions and allows you to pound him with direct-fire weapons. He can't afford to void the weasel because all of the drones would revert to his ship as a target."

"Original, Cadet," the Commander acknowledged. "Although he will have a considerable edge in ECM to reduce the effect of your weapons fire."

"By using wild weasels or wild SWACs or scouts, you can set up a drone trap," Mizia proposed. "Or put a high value target near the enemy, then move it back through your formation. By drawing drones into a killing zone, they can be destroyed by weapons which are facing away from the enemy and therefore unengaged."

"When should the larger 'double-size' drones be used?"

"Only when there are so many drones that the enemy cannot identify all of them," Cadet Crull insisted, "and when he can't destroy them all. In any other conditions, it would be better to launch two small drones."

"Of what value are scatter-packs?" the Commander asked.

"An excellent way to temporarily increase the launching rate of a ship with few drone racks," Cadet Raymond proposed.

"Assuming you can get them to release," the engineer commented. "They have serious restrictions and a troublesome minimum range."

"They're good captor mines," Cadet Spencer recalled with ennui."

"Have the drones set to spread out as much as possible on release," Cadet Zimdars suggested, "so that a single mine cannot get them all."

"Load dogfight drones in the pack," Cadet Heim proposed. "They can't be diverted by weasels or scouts and will do at least some damage."

"Now let us turn our attention to fighters and PFs," the Commander said, turning to yet another page.

"Fighter suppression is not an effective use of drones," Cadet Mizia pointed out. "Most fighters can shoot down or out-maneuver drones, or decoy them with chaff packs. Engaging a fighter squadron with drones produces nothing but empty drone racks."
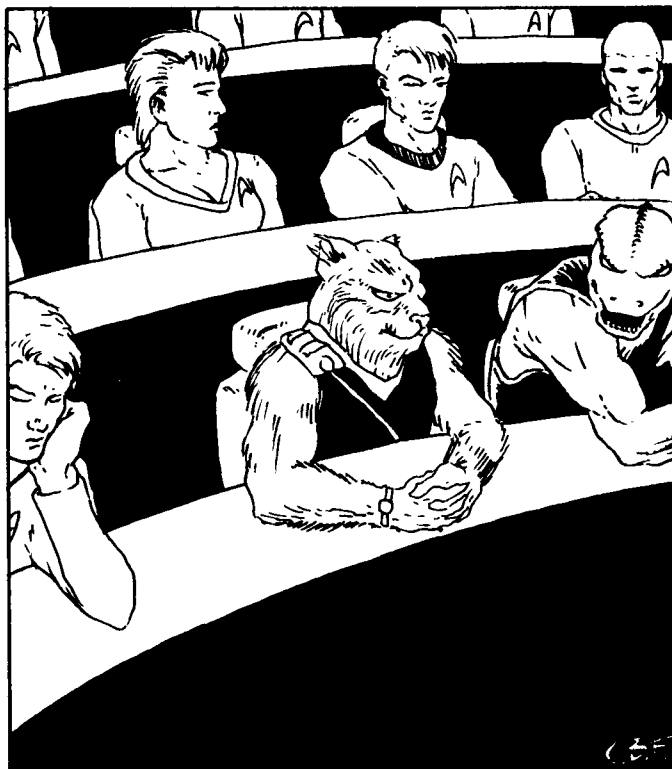
"How then would you deal with them?"

"Direct-fire weapons immediately after they come within optimum range," Cadet Raymond suggested. "While it is hard to kill a fighter at extreme range, it is actually easier to kill most fighters than it is to kill the drones they carry. And if you destroy the fighter before it can launch, you kill both the direct-fire and drone weapons with one shot."

"Of course," the Marine noted, "you only need to cripple a fighter to eliminate its drones, and a crippled fighter in and of itself has little offensive potential."

"The fighter or PF group should strive to keep a wall of drones between themselves and the enemy," Cadet Crull pointed out. "That will soak up enemy firepower and keep the smaller units intact until the critical point of the engagement."

"Considering how long it takes to rearm an entire fighter squadron," Cadet Townsend said, "you must know well in advance what you are going to do or you will waste your one shot."

"Drones are an extensive subject, and we'll have to complete it another time," the Commander concluded. "Now if you'll proceed to the simulators, we'll find out if you have learned anything." On the way out of the classroom, the Commander spoke briefly to one of the training officers. "Put the Marine in the HTS." Then he walked to the observation gallery.   ★★★

AGAINST ANDROMEDANS

The Commander stepped up on the podium and rapped his pencil against the edge of the lectern.

"Cadets, if you will take your seats please, we can begin."

The class quickly organized itself. Kaufman slumbered on the front row beside the engineer. The bearded Cadet Smith and the Orion Cadet Delilah released their visual lock-on and turned to face the Commander. The two exchange cadets, Hunter and Sslitz, released the grip they held while arm wrestling and took out their pencils. The rest came to order.

"You have all had an opportunity over the last few days to train in and against Andromedan ships in the simulators. As you know, their ships are, size for size, the most dangerous you will ever encounter, and such encounters are becoming more frequent and disruptive to our operations. After the Klingons are defeated, the Romulans and Lyrans will collapse and the Orions can be managed, but the Andromedans will remain to be dealt with.

"You have the technical materials and are familiar with the various classes. You are aware of the intelligence reports that a new and even larger ship, the dreadnought-sized Dominator, is now suspected to be in operation.

"We will discuss their warships today; their bases and other fixed defenses will have to wait for later sessions, after you have been given the technical data on them.

"Let us begin our discussion of these ships with some basic definitions. Cadets?"

"Their ships do not have shields, but use power absorber panels," the engineer explained. "These require more power than shields, but can absorb more damage. The panels are not flawless, and even minor hits can cause some damage to an Andromedan ship. Strangely, disruptors have an observed tendency to leak through more than any other weapon."

"The power from those panels can be used by the ship," Kaufman added.

"Especially by Asps and the new Terminators," Crull cautioned.

"The panels can be overloaded," Greenberg mentioned.

"But you have to do it quickly, as they can dump power to space," Stein added.

"They also suffer a loss in their ability to absorb energy, but this takes some time."

"They have plenty of power," Cadet Pinnell commented. "They can cruise at warp 3, with all of their weapons active and plenty of reserve power."

"What about their weapons, Cadets?" The Commander turned to another page in his notebook.

"Their primary weapon is the TR beam, of which the version found on their larger ships is similar in effect to a phaser-4," the engineer explained.

"It uses more power and fires less often," Cadet Olesen corrected.

"Their phasers, or at least what corresponds to our phasers, are sub-standard," Cadet Spencer suggested.

"A good point," the Commander responded. "Does anyone know why a race that can cross the inter-galactic void can't build a first-class fire control system? No, I didn't think any of you did. No one else does, either."

"Their displacement devices provide a unique movement capability," Cadet Spencer suggested.

"And they can really foul up your formation," Cadet Crull added.

"All right, that covers the basics," the Commander intoned, turning to another page in his notebook. "Let's get down to cases.

"What is the single most important factor in defeating an Andromedan ship?"

"Delivering the maximum amount of firepower on a single set of panels within the minimum amount of time, thereby overloading the panels." The engineer went on, "Andromedan ships are generally smaller than galactic ships of the same class. A relatively small amount of internal damage can set off a chain reaction, resulting in a catastrophic explosion."

"Correct, Cadet," the Commander responded. "The problem is in getting and staying in position to apply that damage. The Klingons, with their stasis field generators, have an advantage in that respect." The Commander turned another page. "What basic change is made in all fleet tactics when fighting Andromedan ships?"

"Every ship must continue to fire at a single target until it is destroyed," Cadet Smith pointed out.

"Against any other force, each ship would select its own targets or deal with those it was closest to, it being better to score major damage on a secondary target than minor damage on the fleet's primary target.

"It does no good, however," Cadet Smith went on, "to score less than overwhelming damage to an Andromedan as he can clear his panels quickly.

"Even the slight damage scored by a ship that is out of position can be the margin between a major explosion and a minor inconvenience."

"Excellent, Cadet Smith," the Commander commended.

"Even ships out of range should fire to add whatever damage they can," Cadet Crull appended.

"What is the best range to fight an Andromedan?" the Commander demanded.

"From 150,000 to 250,000 kilometers," Cadet Townsend responded. "From there, you are safe from his TR beams and can hit him with proximity photons, improved disruptors, or the heavier plasma torpedoes."

"Baloney," Crull responded. "You won't score enough damage to overload his panels."

"You've got to get in close and clobber him before he can get you," Cadet Olesen added.

"The battle would last forever," Cadet Vandal gasped.

"The battle may take time, but the degradation effect on the panels will soon force him to operate them at reinforced levels

only," Cadet Townsend rejoined. "This will hinder his operations and make him more vulnerable to destruction."

"You still have to get close," Cadet Schultz commented. "Tie up his phasers with drones, and approach from the flank to keep half of his weapons unengaged."

"That's a critical disadvantage," the engineer advised. "Their weapons are primarily side firing, so some of them are always blocked."

"Not on the forward centerline," Cadet Crull insisted.

"Or on the rear," Kaufman added. "They can fire at point blank, then reverse direction to hit you with the side weapons while exposing empty panels."

"Always use overloaded photons in narrow salvoes," Cadet Dodd insisted. "Anything less won't produce the massive damage you need."

"Any other comments on power absorbers?" the Commander inquired. "Cadet Pinnell?"

"They have an absolute limit," the chunky Canadian responded. "Unlike shields which can be reinforced with reserve power, power absorbers only hold so much and that's it. Also unlike shields, when they are destroyed, the energy they are holding is released to damage the ship."

"That's a significant point," Cadet LeDrew added. "While they seem to have more reserve power than any other ship, perhaps due to advanced batteries, they cannot use it to absorb damage."

"The panels cover a 180° arc," Cadet Abernathy offered. "Ships from widely separated points can all fire on the same panel."

"The panels can be cleared faster than you can repair your shields," Cadet Cree commented. "Although their ability to repair degradation is commensurate with the ability of a galactic ship of the same size repairing its shields."

"If you get a shot at the rear panels, take it," Cadet Crull insisted. "Most of their ships have 25% fewer panels on the rear arcs and can be more easily overloaded."

"Now let us turn our attention to the use of seeking weapons against Andromedans."

"They have no seeking weapons of their own," Cadet Crull pointed out, "so the energy normally spent on a wild weasel can be better employed elsewhere."

"They cannot use wild weasels," Cadet Clem explained. "This makes them especially vulnerable to massed attacks by converging weapons."

"Andromedans are able to remain at high speed," Cadet Pinnell stated. "They can use that speed to outrun any drone."

"The Andromedan can displace himself away from or behind your seeking weapons," Cadet Pini suggested.

"He could also displace himself behind a planet or asteroid belt," Cadet Richardson pointed out, "destroying the seeking weapons without damage to himself."

"They totally desstroy any usse of plassma torpedoess," Cadet Sslitz commented. "We Gornss find thesse weaponss of usse only againsst thosse sships without the dissplassement devisse. What is worsse, an Andromedan sship that iss not the target of a plassma torpedo can dissplasse that torpedo, caussing it to losse tracking on itss original target."

"The dizplazement defize givz uz fitz, too," Cadet Hunter remarked. "Even though our dronzes have the range to pursue the target after dizplazement, it complicates the situazion."

"What tactics do you find most effective, considering your dependence on those weapons," the Commander asked.

"Launch many torpedoess from all directionss," the Gorn cadet responded.

"Try to conzeal the true targetz," Cadet Hunter answered.

"Try to hit a target that has already displaced before it can displace again," the Marine cadet suggested.

"While we are on the subject of the displacement device," the Commander turned a page, "there are several points to consider.

"First, can someone define the three basic uses?" the Commander asked. "Cadet Pinnell?"

"First, to position themselves for a more favorable attack. Second, to save an Andromedan ship that is in a disadvantageous position. Third, to break up an enemy formation."

"Almost correct, Cadet," the Commander advised, pointing to another cadet.

"Third, to place an enemy ship in a disadvantageous position," the engineer answered.

"One fairly common Andromedan tactic is to fire at 50,000km," the Commander began, "then displace themselves behind you where your overloaded weapons cannot fire. What solution can be suggested for this?"

"Always have a high energy turn programmed," Cadet Perez-Albuerne answered. "It may be the only way to bring your overloaded weapons to bear. Either that, or you will have to fire the moment you detect the buildup of the displacement effect. The direction of the effect can always be detected, but not the distance, so you have to be wary of short displacements." The Castillian cadet, known as "PA" to his friends, was one of the better Andromedan "commanders" in the simulation chamber.

"Displacement devices have many uses in combat," the Commander remarked. "Can you suggest some of them?"

"They can break stasis fields and tractor beams," Cadet Elliott responded. "They are also useful to displace a ship that is anchoring or reinforcing a web and could be used to displace an Andromedan ship inside a webbed defense zone."

"They can randomly scatter your fleet," Cadet Clem answered, "preventing you from concentrating your firepower."

"The device can conceal their intentions," Cadet Cree informed. "They can appear to be charging you and then suddenly retreat. They can appear to be retreating and then suddenly jump behind you."

"They can displace you into an asteroid belt, minefield, or planet," Cadet Phongasasavithes warned.

"As we all know," the Commander said, turning another page, "the satellite ships carried by heavy Andromedan units can increase the firepower of those heavy units significantly. How are these units used?"

"To increase firepower and to dump energy," the engineer informed.

"They also enable the Andromedans to tailor their motherships for specific missions," the Marine cadet observed, "and, within their own limits, are capable of undertaking independent missions."

"What tactics are necessary when fighting them?" the Commander asked.

"Catch them alone and kill them before mother can arrive," Cadet Crull demanded.

"Carefully watch how your weapons recycle," Cadet Smith warned, "or you'll still be recharging when the satellite appears. Since they can be launched facing in any direction, the mothership can place one facing your most damaged shields."

"They have a pseudo satellite ship that can trick you into expending weapons before the real satellites are launched," the Marine cadet advised. "They do not always have this item, but by deploying such things at irregular intervals, they keep us on our toes."

"What should be the primary target?" the Commander asked. "The satellites or the mothership?"

"The biggest thing you can kill!" the class responded.

"Explain. Cadet Hammond." The Commander used his infamous glare to impale the cadet and let him squirm.

"The firepower of an Andromedan group is tremendous and must be reduced as rapidly as possible. While destroying the mothership leaves the satellites stranded, and at a disadvantage without their own displacement devices, if you can't destroy it quickly, you won't survive the battle. So if you don't have the power to kill the mothership, pick off the satellites one by one."

"Are there any specific comments on the Asp and Terminator-class maulers?" the Commander asked.

"Avoid closing to point-blank range," Cadet Bayless warned, "where these ships can crush your shields like an eggshell."

"Don't fire at them until you can destroy them," Cadet Tankersley advised, "or you'll just get your power shot back at you."

"How suited are Andromedan ships to a heavy electronic warfare environment?" the Commander inquired.

"Very," Cadet Boyle answered. "Their ample reserve power allows them to make full use of their systems."

"But their Courier scout is pitiful, having three channels and limited power to operate them," Cadet Pinnell pointed out, "and the presence of your own scout ship in a battle with Andromedans supported by the Courier, or no scout, can be decisive. The Eel has many of the problems of the Courier, but has another channel and more power to work with. The Python based Anaconda scout is a real powerhouse, with both adequate power and four channels. Carried inside a mothership, it also provides a backup displacement device if one displacement device equipped ship of a pair is destroyed or forced to disengage. The mothership scouts, Infestor and Missionary, have ample power but few sensors and do not seem intended to operate as fleet scouts."

"Any other comments on how to fight an Andromedan?" The Commander reversed his pencil and began writing small notes in his notebook, or perhaps he was checking off a list. The cadets would never know that he was working a crossword puzzle in Klingonese.

"The best way is to use a CVA group to bushwhack a Bull Snake cargo ship," Cadet Crull quipped.

"Let's be serious, Cadets," the Commander warned.

"The bezt unitz are fazt patrol zhips," Cadet Hunter growled. "They have the bezt firepower per unit and can approach from zeveral directionz, and he cannot dizplaze all of them."

"In some cases," Cadet Smith cautioned, "fighters are more cost effective. Those PFs are just big enough to absorb a heavy TR beam."

"You musst approasch from two direcssionss," Cadet Sslitz warned, "sso that they cannot dissplasse away from you."

"And so they can use all of their weapons," Cadet Smith chided.

"You really can't tractor one of their ships," Cadet Cree advised. "They have plenty of power to break your beam, and you're only helping them drain their panels."

"They don't usually have tractor beams," Cadet Jenkins advised, "other than their weapons, and can't use them to defend against drones. The motherships, at least the Intruder class hulls and larger, usually have one tractor, but it seems to be there more to aid in the recovery of satellite ships than any other reason."

"Leave a scatter-pack behind your ship," Cadet Abernathy recommended. "If he displaces over you, the pack will release and hit him before he can displace again."

"Then he will just drop a T-bomb next to your scatter-pack after his scanners balance," the Marine snapped. "While you might try it, it is rather easy for him to counter."

"Mines will work just as well," Cadet Hack advised.

"You can't board them," Cadet Smith intoned, "which is why capturing one is generally regarded as impossible."

"Don't let cripples get away," Cadet Crull insisted. "Back off, but continue to hit them until they go down."

"Enveloping plasma torpedoes are excellent for use against Andromedans," Cadet Hammerman injected. "They have more power, and still pack a punch after a long chase."

"You haven't mentioned your prized Retrograde Tactics, Cadet Kaufman," the Commander chided. "Any comment?"

"They can do it better than you can."

"How so?"

"They have plenty of power," Kaufman began, "can displace themselves if they need to change position rapidly, and can move at full speed with all weapons ready.

"If you try to retrograde in front of them, they will just displace you out of formation or themselves into your formation."

"But the range of their weapons is limited," Cadet Hack insisted, "allowing you to hold superiority of fire at medium range."

"What are some of the basic tactics Andromedans use?" the Commander asked. "What did you learn while flying them in the simulators?"

"Obviously," Cadet Crull began, "you must plan measures to drain power from the batteries if it becomes necessary to make room in them to allow you to drop your panels in order to clear them quickly."

"Reserve a couple of phasers for anti-drone work," Cadet Weisser advised.

"Since you don't have to drop PA panels to use transporters," Cadet Elliott explained, "transporter bombs become a major weapon."

"Transporter bombs are the primary defense against drones and fighters," Cadet Burdick added.

"Andromedans are murder on bases," Cadet Stollings groaned. "They can jump over minefields, run under your guns to point-blank range, and trade punches with the base."

"Keep your last satellite ship in the hangar as long as possible," Cadet Greenberg suggested. "Use it only to gain a decisive advantage or to absorb power from destroyed panels."

"Motherships can also carry energy modules to aid them in clearing their panels quickly," the Marine cadet noted. "This may be the best use of the hangar space on the Imposer."

"At a range of 90,000km," Cadet Christopher Patton suggested, "turn to face away from the enemy. He may think you are retreating and laying mines and fire at you at long range. Then displace 120,000km to the rear, placing yourself behind the enemy and at optimum range."

"You can run over your own mines to recharge your batteries," Cadet West said, "but this entails some risk as you need time to drop the panels to absorb the power. Never get within overload range of the target unless you are behind him and fairly certain that he cannot HET."

"You can transfer power from the forward panels to the rear ones," Cadet Stein suggested, "by reducing the level or dropping them altogether. This can also be done with satellite ships."

"Risky!" the Commander snapped.

"The panels cannot be reactivated for a specific period of time, during which you are very vulnerable to internal damage. Particularly if your opponent has some unfired hellbores."

"No guts," Cadet Smith concluded, "No glory."

"Indeed," the Commander remarked. "And the pursuit of glory will get you and your crew killed. We pursue victory.

"Now, Cadets, I have a special simulator exercise set up. You are actually going to attempt to capture a lone Python-class destroyer. This should prove particularly interesting for our Marine guest."

The class laughed as they trudged to the simulators. ★★★

BROTHERHOOD BANQUET

Ardak Kumerian, Admiral of the Red Fleet, was bored. He had expected to be bored, but the reality was worse than he had expected. Tomorrow his fleet, formerly a training establishment, but now an active tactical group, would leave the starbase to intercept an approaching Alliance squadron known as "The Cavalry." All of the plans and preparations had been made, and the final night at the base had been reserved for a "brotherhood banquet" with his Lyran and Romulan allies.

The banquet had begun well enough. The Security Officer, the closest thing the Klingons had to a priest, had recited the traditional words: Your duty to your Emperor and your brothers in arms is foremost. At every moment, in battle or in victory, you must remember your duty above all else, and it must guide your every action and command.

The Lyrans had wheeled in a buffet table with an entire Hydran, cooked in his own methane. The Romulans, with considerably better taste, had brought a dozen barrels of ale.

No one had remarked on Kumerian's uniform. No one would dare. Admiral Kumerian wore the uniform of a major in the Imperial Marines. Why not? He had a right to it.

Like most Klingon officers, his naval commission from the academy included an identical commission in the marines. Few used both commissions, and more than a few fleet admirals were still lieutenants in the marines. Kumerian had led several commando raids in his time, however, and spent several months commanding a marine battalion when he was not in the favor of the admiralty (and when he was technically a commodore in the Fleet). The marines had been willing to grant well-earned promotions to a proven (if hardly legendary) officer, and gambled that he would eventually return to the Fleet and prove a powerful ally.

The marine detachment thought that his uniform was a gesture toward them, and Kumerian was willing to let them think so. His real purpose, however, was to circulate among his officers during the banquet without overawing them with his admiral's badges. Tradition demanded that he be treated as he chose to be, and if he chose to be treated as a major instead of six ranks higher, everyone was obliged to pretend that this was the case.

Kumerian was worried about the mixed bag of 20 ships that had been assigned to him. The lack of a stronger Romulan contingent was noticeable, as Kumerian had hoped for more of their plasma torpedoes, and cloaked ships were useful scouts. But there were few Romulan ships in Klingon space, and no more were likely to arrive anytime soon. The three ships had been assigned to the Red Fleet to train Klingon captains to battle plasma torpedoes, and when the fleet was activated, Kumerian quickly appropriated them. And for all of that, they provided the ale.

About a third of the ships were Lyran, and Kumerian was very concerned about how far they could be trusted. Their commander was a mindless fop who just happened to be the senior survivor of Duke Roget's noble house. Kumerian regretted that it had not proven possible to convince the Seltorians to provide one or two ships to his fleet in case Tholians turned up with a web caster. Unfortunately, the Seltorians were only interested in killing Tholians where there were Tholians to kill, not where they might show up.

The worst of it was that Kumerian did not know these ships or these officers. He had met the captains and knew them well enough, but he needed to know more.

He intended, by his open masquerade as a junior officer, to talk to the watch officers and department heads on which his fleet would depend.
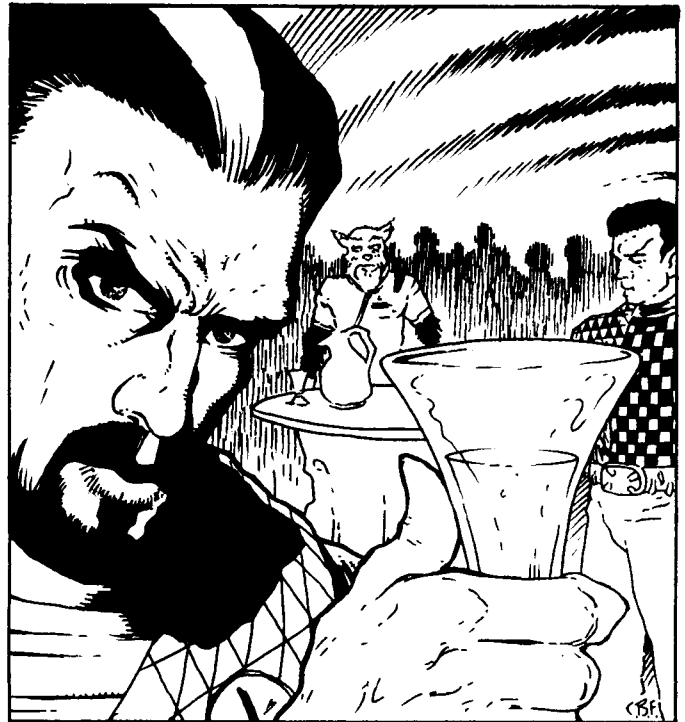
Kumerian observed his brother-in-law, Tar Bordrake, and his son, Kollos, talking animatedly together.

Bordrake commanded the *Purgatory*, even though his assigned tour had been over for nearly a year. It had not really been Bordrake's fault that he lost a D5 against a superior Hydran force. Frankly, Kumerian was glad for the extra cruiser. Fleet command always seemed to send the penal ships where the battle would be the hottest.

Kollos, wearing his ISF uniform, commanded the mixed Klingon-Lyran PF flotilla that had been created for this operation. Kumerian was proud of his son and was glad that he had been visiting on leave when the operation began.

Kumerian longed to speak with them; however, he knew them and had spoken to them both previously, as he had all his commanders, and needed to know his other officers. Besides, seeing them together brought back memories of their sister and mother even a Klingon admiral found too painful to endure.

He approached a group of officers.

"If I may intrude, gentlemen," Kumerian interrupted, "I would like to hear your discussions of tactics."

"Of course, ... Major," one officer responded. "We were just discussing how uncooperative our enemies have been to avoid the rear arc on our ships, where all of the phasers can bear."

"Always a problem, of course," Kumerian answered. He noted a young officer who seemed particularly withdrawn. "Did you have a comment, Ensign Krogh?"

"M-M-Major, I only thought...." the young officer began.

"Come, come, young sir," Kumerian chuckled. "I am, after all, only a curious marine."

"It's just an idea." Krogh stopped, but Kumerian's eyes motioned him to continue. "If the phasers were charged, we could make a high energy turn at the last instant, bringing them to bear on a shield already weakened by disruptors and the forward phasers."

"Yes, Ensign," Kumerian acknowledged. "It's a known tactic. We use something like it in the marines, where our assault vehicles stop short of overrunning the enemy and engage him

with rapid-fire weapons. The humans call it the caracole. It doesn't always work, but it's a tactic to keep in mind."

"Of course," Krogh's commanding officer added, "the refits that increased the rear shields have enhanced this option."

Kumerian nodded acknowledgement and turned away. After picking up a glass of ale, he approached another group of officers. One of them was obviously lecturing the younger ensigns and lieutenants.

"Our best advantage is speed and maneuverability," Lieutenant Commander Krohl was expounding. "We can fire overloads at 80,000 kilometers and then turn fast enough to keep out of the 40,000-kilometer kill range of overloaded photons."

"Absolutely," Ensign Keifert confirmed. "Staying at 80,000 kilometers is the key to success against the Federation."

"True, and maneuverability is the key to controlling the range," Krohl continued. "Now, concerning..."

"Excuse me, helmsman," Kumerian interrupted.

"No helmsman here, marine," Krohl rejoined. "I'm head of the maneuvering and navigation department, and..." The rest of the sentence was swallowed in the realization of just who he was berating.

"I was wondering," Kumerian smiled, "how a helmsman would know about drones. That was what you were telling these other gentlemen about when I first heard you from across the room. You were suggesting that only four drones should be loaded in a scatter-pack?"

"Yes, sir. To reduce the strain on the control channels."

"Sir? But surely we are of the same rank, Lieutenant Commander. Or perhaps you accept our belief that marines outrank naval officers of the same grade?" Kumerian was still smiling, and Krohl was still acting like he had been hit with a phaser set on medium stun.

"No matter, but perhaps you could explain to a mere marine why, if control channels are so limiting, that you would not use the extra space for larger drones, or for short-range drones that don't require control?"

"I was just getting to that when ..."

"When I interrupted. Of course." Kumerian was still smiling. "I've looked at your record, Krohl. You're wasted in maneuvering. We need to find an executive officer position for you, assuming, of course, that you can learn not to be rattled by marine majors asking questions."

"Or by admirals, sir."

"No admirals here, Commander," Kumerian chided. "Carry on. No doubt these young officers, Karpf, Kanjorski, Kazinski, Klafter, and the rest, can learn much from you. I'll arrange with your captain for you to spend your off duty hours giving them additional training."

Still smiling, Kumerian turned and walked away. Passing another group, he noted a brief exchange.

"Maneuvering is crucial to defeating Hydrans," Lieutenant Kahl commented. "They can't fire all of their weapons across the forward arcs. Keeping to one flank will ensure that only part of their firepower can be used against you."

"That's ancient history," Lieutenant Commander Kray responded. "Their newer ships can fire their weapons across the forward arcs and can even fire their gatlings forward."

Kumerian nodded and kept walking, then recognized an old friend.

"Commander Mizia," Kumerian greeted the police officer warmly. "I trust your flotilla is ready for operations."

"Of course, Major," the Commander responded. "My flotilla is proud to serve with the Red Fleet."

"Perhaps the admiral will find an honored place for you." Kumerian glibly suggested, knowing that the PFT had been assigned to one of the flanking forces.

"Were I able to suggest it," the Commander answered, "I would recommend that my flotilla be assigned to protect the fleet from drones. There will be Kzinti and Federation fighters in operation against us."

"Indeed, but why that duty?"

"The G1 gunboat is superb for anti-drone duty," Mizia pointed out. "It has the best possible combination of weapons. Properly deployed, we can destroy more than two dozen drones in a single pass."

"An excellent observation, Commander," Kumerian answered. "Perhaps the admiral will see the same opportunity that you do."

"Perhaps so, Major. Perhaps so."

Kumerian picked up another ale and joined another group of officers.

"Pity that our ships do not mount more drone racks," Lieutenant Klem mused. "We have to rely on scatter-packs to generate an adequate attack."

"Surely, Lieutenant, you do not question the admiralty's judgment," Kumerian accused as he approached the group of officers. "There would be design penalties for additional drone racks. And would not the increased number of drones simply draw a wild weasel from the target?"

"No question of judgment, Major," Klem defended. "As you suggested, it was only an observation that scatter-packs are difficult to employ in combat."

"And were you a captain, Lieutenant," Kumerian asked, "how would you best employ one?"

"Have it follow my ship into direct combat," Klem responded, "and time its release only after I could tractor the enemy to prevent his use of such a device."

"A difficult tactic, Lieutenant."

"Most successful tactics are, Major."

"Kai, Lieutenant," Kumerian answered. Another officer spoke.

"While disruptors are more effective overloaded," Lieutenant Katak commented, "the range limitation imposes tactical problems."

"Surely there is a solution," Kumerian insisted.

"Reserve power can be used to overload them at the point of firing," Katak suggested, "but there are limits."

"But it is one of the options?"

"Of course."

"Of course," Kumerian responded. Picking up a sweet-roll with his next glass of ale, he approached a group of Romulan officers. All of them scattered when he approached, however, leaving Kumerian's thanks for the ale to fall on deaf ears, or no ears at all. He moved toward a group of Klingons.

"Hello, Major," Lieutenant Commander Kreiger greeted Kumerian. "You know Lieutenants Kerr, Kicmol, and Kopp and Ensigns Kuhr and Kronschnabel." Kumerian nodded. "We were just discussing the stasis generator."

"You have to prepare ahead of time to use the stasis generator effectively," Lieutenant Kicmol pointed out. "Other ships must be in position, weapons ready to fire, scatter-packs ready to launch, all before you activate the field."

"Using stasis generators is difficult," Kumerian admitted. "The ship must be at sublight speeds. That requires the enemy to be very cooperative, or requires the ship to move very slowly."

"There is a way around the problem, Major," Lieutenant Kolmen suggested. Kumerian raised an eyebrow to show he was listening. "Simply have another ship tow the stasis ship into combat. Of course, it works best with the smaller D5A types, which are easier to tow. In this manner, the tractor can be dropped and the generator activated at any time. Plus, the generator ship has extra power to use for defense."

"An amusing thought," Kumerian remarked. "I see you serve on the *Retainer*. Why not mention this to your captain?"

"Captain Kolart keeps his own counsel," Lt Kolmen remarked. "He doesn't ask the opinions of junior officers."

"Isn't that him standing over there?" Kumerian asked, nodding to the captain. "Why don't you go tell him your idea now and mention that I suggested you bring it to his attention?"

"Why, of course, Admi ... Major. And thank you."

Kolmen headed for his captain as Kumerian picked up another drink from a passing steward. Kumerian knew, although Kolart did not, that the stasis ship had a special mission that would take it away from the rest of the fleet.

Taking a sip of ale, Kumerian moved toward a group of Romulan officers, who turned and scattered on his approach. Turning aside, Kumerian approached a group of Lyran junior officers. Recognizing the double-claw insignia of a lieutenant commander, Kumerian spoke to him, remarking on the combat effectiveness of the ESG.

"But tell me, Bolmark," Kumerian continued, using the Lyran's name, "what do you do when the enemy unexpectedly holds you, at arms length as it were, with a tractor."

Bolmark laughed. "When he doez it unexpectedly, you don't do anything. Unlezz you have prreparred forr a trractorr, you zhouldn't be trrying an overrrun."

"How so?" the Admiral asked.

"A varriety of meanz. The mozt obviouz iz allocating powerr to negative trractorr and to rrezerrve. Otherr meanz include zetting the zpherre for a larrgerr rradiuz..."

"Giving up some damage?" Kumerian remarked.

"Forr a betterr chance of cauzing damage, Majorr." The Lyran responded. "Alzo, a few phazerr zhotz to uze up hiz rrezerrve powerr will help. If you ztill can't brreak the trractorr, juzt be thankful the powerr izn't being uzed forr zomething elze."

"Still, isn't cycling time a problem?" Kumerian asked.

"Not entirrely," Commander Perrzear responded. "We azzign zhipz to worrk in teamz, coverring each otherr with theirr zpherrez."

"What size teams do you use?" Kumerian asked.

"It dependz on many factorrz. Two orr thrree zhipz with thrree orr morre generratorrz arre bezt."

"None of you Lyrans play banshee ball do you?" a young Klingon who had just joined the group interrupted. "I didn't think so, or you'd see an obvious ESG tactic."

"Perhaps our allies would appreciate your insight, Lieutenant Kausch," Kumerian suggested, taking note of the brash young officer. Kausch had been watching Kumerian since dinner, waiting for an opportunity to speak to the Lyrans with the admiral present.

"It's simple, really. You have one ship grab the target with a tractor and shove it into the ESG of the second ship. Then reverse the procedure."

The Lyrans began laughing and chattering in their own language. Kausch answered them in Lyran, and they began laughing again. Kumerian turned away, making a mental note to have Kausch transferred to his flagship. An officer who could understand these allies would be more than simply convenient.

Noting the senior Romulan officer, Kumerian approached him. The Romulan did not turn away as the other Romulanss had, but spoke first.

"Uncle Ardak," the Squadron Commander spoke, using the term that Kumerian's young officers called him behind his back.

"Uncle Remus," Kumerian returned the light jab. The two men were twice the age of their officers, being among the few to survive a dozen years of war. There was a kinship between them, of friends, and youth, lost over the years. "Can you explain the behavior of your officers? Why have they been avoiding me?"

"Klingon custom says that if an Admiral calls himself a Lieutenant, he wants to speak openly with his junior officers," the Romulan explained. "If a Romulan Admiral appears as a Lieutenant, it's because he doesn't want to be noticed at all.

"By custom, they aren't even allowed to notice you."

"I hadn't known that," Kumerian admitted. "But if they won't speak to me, why do you?"

"By my customs I shouldn't, but I knew yours."

"I heard that you defeated a Federation cruiser in your last battle," Kumerian asked. "Mind telling me about it?"

"It was a bold plan," the Romulan Commander began. "I approached him head on, cloaked of course. He held his fire, waiting for me to uncloak. I maneuvered to pass under him. At that point, he began turning slowly to his left. Satisfied that he did not have a high energy turn plotted, I slipped to my left, placing my ship directly to his rear."

"If he had had the energy for a snap turn?"

"Why, I would have stayed cloaked and kept going, of course," the Romulan laughed, "but since he didn't, I uncloaked, made a high energy turn to my right, grabbed him with a tractor, and unloaded everything into his rear shield.

"It is amazing how many Federation captains will not have a weasel ready when hunting a cloaked ship."

"Let us hope they never learn."

The Romulan Commander excused himself and departed. The banquet was long over, and the few officers remaining were rapidly making their exits. Kumerian took a moment to reflect. They were good officers. Young, most of them too young, but all that the Empire had left after 12 years of war. In another year at this rate, commissions would be handed to Klingons born after the war started.

"We are all good soldiers," Kumerian muttered to himself. "But this war has gone on too long, and the Empire is consuming itself in the fire. What new Empire will rise from the ashes we have yet to see."

Briefly, Kumerian considered that if it were not for the two failed assaults on the WYN Cluster, one Lyran and the other by the Empire, his fleet would not have been activated. Worse, he missed Commodore Ketrick, his former chief of staff. When Admiral Korath had been killed in a Federation ambush, Ketrick had been the only flag officer who was fully briefed on the operation, not least because he had written most of it. The brief campaign had cost Ketrick his life and shattered the only reserve the Empire had had to block the Alliance Cavalry offensive. With the Lyran reserves also depleted by their own attack on the Cluster, the Empire had been forced to turn to Kumerian's training fleet, supported by a few allied ships.

"Ah, Commander Khambers," Kumerian roused from his reverie to greet the stunning female officer who had approached him. She had been picked to command a new F5W, replacing an incompetent officer Kumerian had been forced to relieve. Rather than promote someone from the ship, which had not met the standards during its combat training, Kumerian had selected Khambers from the Red Fleet Staff. She had commanded an F5 against the Federation earlier and was more than qualified.

"You wanted to see me, Major?"

"Admiral," Kumerian corrected. "But if you are to command a ship in my fleet you must learn to call me by my given name, in private at least. It is Ardak."

"Ardak," she savored. "It is a strong name. Mine is Karilyn."

"Fitting, and so like my Katrina, lost to me these nine years."

"If I am to serve under you, Ardak," Commander Khambers remarked, "we must discuss the maneuvers you propose to conduct."

"Indeed," Kumerian agreed. "Come with me, Karilyn." They left together but, after that night, would never meet again. ★★★

SENDING GERARD HOME

"Sit down, Lieutenant," Captain Daniel 'Deth' O'Kay motioned the Federation officer toward one of the over-padded lounge chairs. "Have something to drink."

"When will the ship arrive?" Lieutenant Will Gerard asked.

"Soon. Until then you might as well enjoy the entertainment." Deth gestured toward the green-skinned dancing girls.

"It's quite a party," Gerard remarked.

"The government of Orion throws a reception every year for the various private operators," Deth replied. "It gives us a chance to exchange information, renew acquaintances, make deals."

"Operators?" Gerard sputtered. "You mean pirates! Lawless barbarians who live by the rule of force and maintain discipline with brutality."

"Is that what they taught you at the Academy?" Deth responded. "That we're just thieves and brigands?" Gerard nodded slowly.

"Tell me," Deth changed the subject, "at the Academy, is there still a sign saying 'Use your tractors, dammit!' above the cadet entrance to the simulator room?"

"How did you know?" Gerard was shocked.

"The sign was there when I was a cadet," Deth answered, sipping his coffee. "It reminded us to use all of a ship's systems."

"You went to the Academy?" Gerard could hardly believe it. His eyes widened further when Deth turned his hand to show his class ring. "And you graduated?"

"Does that surprise you?" Deth inquired, "All heavy cruiser captains, and most of our other captains, are Academy men, from various academies of course. Some graduated, some didn't. Some left the service voluntarily, some were kicked out, and some escaped. And we have our own training schools and our own Academy. Really Lieutenant, we aren't barbarians. The fact that we're exchanging you and the other 30 survivors from your police cutter shows that. We're professionals of a proud service.

"Look, your fleet sends raiders behind Klingon lines all the time. Is there any difference between what we do and that? We're always operating behind everyone's lines.

"Do you think an Orion captain keeps order with a phaser? Our ship captains face the same problems yours do. We've got more problems, in fact, since we face different challenges than you do. Our ships are smaller, we have less time to accomplish our mission, and we don't have handy starbases to fall back on."

"Yeah, sure," Gerard sneered. "It takes brilliant tactics to shoot up unarmed freighters."

"Is it tactics we be talking about now," Felna Greymane bubbled as he flopped into an adjoining chair. "Reminds me o' me days at the old Academy."

"The Academy? You, too?" Gerard gasped.

"But he didn't graduate," another Orion officer spoke as he took the fourth chair around the table. "Deth there did, as did I."

"Lieutenant Gerard," Deth introduced the new arrivals, "these are Captains Greymane and Credenza. They command light cruisers, the ones Star Fleet calls Raiders." The Federation officer nodded toward each.

"If we're going to amuse ourselves, and impress Lieutenant Gerard, by discussing tactics as applied to our unique operations," Deth commented, "we may as well do it by the book."

"Aye, Daniel, we all remember MEPS," Greymane mused.

"MEPS?" Gerard looked puzzled.

The Orions laughed.
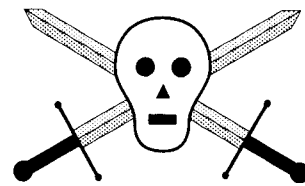
"Something from our own Academy, Lieutenant," Credenza explained. "It stands for Mission, Equipment, Power, and Ship, the things that are different between our operations and yours. In short, our missions involve disabling an escort and grabbing a freighter. We can change weapons to suit the mission assigned, we can increase power at will, and our ships are small and can't stand to take any damage."

"Mission is obvious," Gerard started.

"Not entirely," Deth interrupted. "Our primary mission is survival and avoiding capture. We don't have a fleet of backup ships, dozens of bases for an overhaul, or territory to defend other than occasionally from neighboring cartels. We seek the path of least resistance to secure the material that we need."

"We think differently than you do, Lieutenant," said another officer joining the table. He was introduced as Hacker, a Klingon LR captain from Hamilcar's Cartel. "You can't try to understand us by thinking how you would fly our ships. We have to hit-and-run, grab the loot, and clear the area."

"Aye," Greymane added, "and while no one freighter can defend itself, a whole passel of 'em can be trouble. Together, they've got more phasers than you do, and if one of them grabs you with a tractor, they can hold you long enough for the fleet to arrive."

"By equipment," Credenza began the second topic, "we mean our interchangeable weapons. We can redesign the ship to fit the area we are operating in or the mission we expect to perform."

"Assuming you can get the parts," Deth interjected. "You Star Fleet types think that we can change weapons at will to anything ever made."

"Aye, tisn't so," Greymane agreed. "It takes a base to change the weapons, and then you can only select from what it has in store."

"True," Deth responded, "most of the weapons available are the same as the local fleet. Most of our territories cross borders, giving Pharaoh, for example, a choice between Federation and Klingon weapons. We can get Romulan stuff, but don't like it. Anything else we have to buy off cartels working in those areas. It's rare."

"What weapons do you prefer?" Gerard asked.

"Photons," Deth began. "They give you enough punch to knock down shields on the escorts."

"Plasma torpedoes," Greymane insisted. "Not the big ones, they take too long to arm. But the little ones, they can be stored without power and are ready whenever you get surprised."

"You're a fool, Greymane," Credenza snapped. "You keep those toys because you like fireworks, but they take too long to reload. Disruptors are better if you're chasing freighters, photons if you're busting escorts."

"Drones are cheap, but they take too long," Croll, a Romulan pirate from the Penzance Cartel added as he pulled up a chair. "Their only advantage is that they don't use power, and power we have."

"Hellbores are useful for follow up attacks," said Hacker.

"The key is using unexpected weapons," Deth added. "Not many Klingons know how to avoid plasma torpedoes."

"And of course you prefer your gatling phasers," Gerard laughed.

"Only when we can get them," Deth responded. "The things are more rare than stasis field generators. The Federation's gatlings are all in carrier groups, and we don't mess with those. The only way to get gatlings is to grab a Hydran ship."

"But you got yours from Hydran fighters," Gerard insisted. "It says that in your file."

"He got them where?" Credenza bellowed.

"That may be wha' your file says, me boy," Greymane chuckled, "but you can't mount fighter gatlings on a ship."

"So where did you get them?" Hacker demanded.

"I believe the next subject is power," Deth began, ignoring the question he had never answered before and wasn't going to answer now.

"Aye, dublin' the warp drives gives me little cruiser nearly the power of a dreadnought," Greymane mused, "but it don't last fer long."

"About as long as it takes for the fleet to arrive," Credenza said, "or as long as it takes to get away from them."

"Best to use it for overruns," Croll added. "We have the only ships in the galaxy that can overload photons and charge at full speed."

"True, doubling must be used decisively or not at all," Deth agreed. "Too many of our young officers have difficulty learning that."

"It's the only way our small ships can defeat escorting warships," Hacker explained. "My light raider can crush any frigate in one pass by using increased engine output. I have to; I only get one chance."

"The best way," Deth suggested, "is to arm everything and hold it, double the engines, reinforce the front shield, and put plenty of power into your tractors. Then charge straight in, blow away the escort, and grab every freighter you can with a tractor. After the weapons recycle, you can start knocking down shields and sending boarders."

"Spoken like a true heavy cruiser captain," Hacker growled.

"An LR works the same," Deth said, "just pick smaller convoys."

"That engine doubling capability gives you a lot of reserve power," Gerard observed.

"What do they teach you in that Academy," Hacker asked. "Even at the DSF Academy we knew that hyping a pirate warp drive took time to do. You can't do it on demand, like reserve power, to fire weapons or stop damage. You have to set it up before you need it, then make the best of it."

"Forgive the young man, Hack," Deth interposed, "Star Fleet Academy does have a few misconceptions stored in the data bank. He didn't even know that most of us were Academy men."

"From one Academy or another," Hacker added, showing Gerard his Klingon Academy insignia.

"Don't forget our ships," Deth changed the subject. "The designs are so superior for our mission that every pirate in the galaxy uses them."

"Because of that hull," Croll added, "we can gain electronic superiority over standard fleet ships."

"We're more maneuverable," Hacker insisted, "and the design allowed for repeated high stress turns in the original construction. And many of our ships can do erratic maneuvering for less power than it costs your ships."

"Burn them once too often and you won't see home again," Deth mused. A messenger tapped him on the shoulder and handed him a slip of foil. Deth read it, then crushed it.

"Lieutenant Gerard, you're on your way home," he sighed as he gestured the Federation officer to follow the messenger. "At least you can see the green hills of Earth again. I know I never will."

Gerard left in silence.   ★★★

WEBS AND CASTERS

The Commander stepped up on the podium, took the ubiquitous file folder from under his arm, and rapped his pencil against the edge of the lectern.

"Cadets, please take your seats," he began. "I know it's difficult to settle back down to your lessons after our break, but there is a war on, and we need to cover a lot of material.

"This session concentrates on the unique Tholian weaponry, the web and the new web caster. Can we begin with a basic definition?" The Commander jabbed his pencil toward the cadet with engineering loops on his epaulettes. Few engineers were selected for command training, although virtually all command candidates had engineering degrees.

"A field of tractor energy covering a given area rather than just a specific point. It entraps any object entering it. Has the additional effect of blocking direct-fire weapons, except — significantly — Tholian phasers.

"The field must be anchored to a ship or some other object, like an asteroid, or formed into a self-supporting globe. The new webs produced by the web caster don't have to be anchored.

"The field requires power, or it will slowly decay. Additional power can be added to maintain the strength or to increase it to the maximum level. The un-anchored webs decay much faster and cannot be maintained or increased by external power." The engineering cadet closed his notebook, indicating that he was finished.

"They also expose cloaked ships," Cadet Smith added.

"We'll get to those details shortly," the Commander cut him off. "First, I would like to cover the traditional web, as opposed to the newer forms of cast web.

"We have all run simulators on forming a pinwheel inside a web and on the famous Onion-Peeling scenario. But there is more than that.

"I will begin by asking Cadet Crull to present the project assigned to him for this session." The Commander nodded to the named cadet. Crull rose and stepped forward, then turned to face the class.

"The ability of forces to 'dig in' and hold a position is crucial in land warfare. In space, this concept can be applied to the Tholian web.

"The fleet should be in a loose formation, while MRS shuttles or Spider fighters stretch a linear web from one ship to another. Once these webs are in place, the fleet has a screen against enemy fire. The Tholian ships can fire out of the position while remaining perfectly safe behind it.

"Note particularly that while a linear web, even of very weak strength, gives a fighting position that can be used and later abandoned, a globular web effectively surrenders initiative to the enemy.

"The linear web is vulnerable at the ends, where the anchor ships can be hit and destroyed. Indeed, these will be the only targets that an approaching enemy fleet can fire at. These anchor ships should devote all of their power to defense, and another ship should be assigned to fire for their protection against seeking weapons.

"The fleet's larger ships, particularly the cruisers, should be used in these positions, allowing the smaller patrol cruisers to remain safe behind the web barrier. It should also be noted that shuttlecraft and fighters, normally too small to survive a fleet battle, can be effectively used from such a position.

"Web anchors can be used as expendable anchors, but will not be able to resist fire as well, or as long.

"Ships behind the web should provide enough power to keep enemy ships from breaking through at moderate speed. If enemy ships approach, defending ships should use their power

to increase the web rather than to fire weapons. The enemy ships will turn rather than try to penetrate the web, and you can hit their weaker rear shields.

"If the enemy tries to outflank the web barrier, meet him with the concentrated power of your fleet, then fall back to a previously prepared secondary position. If the enemy destroys one anchor, retreat to the backup position. Incidentally, web casters can be used to create temporary positions behind which more permanent ones can be created."

"You could say, then," the Commander responded, "that non-cast webs are primarily a defensive measure?"

"Primarily," Crull responded, "although you can approach an enemy base in a series of bounds, laying web to cover approaching units."

"Difficult to employ, Cadet," the Commander reasoned, "but theoretically possible. A web caster can do this more easily. Other comments?"

"The anchor ships are the key," Cadet Olesen analyzed. "These should be disruptor- or photon-armed ships since those cannot fire through the web. The Tholians have too few ships equipped with web casters to use them as the anchoring units.

"Other disruptor- or photon-armed ships should be deployed near the ends, where they can fire on ships trying to outflank the position.

"Also, each anchor ship should carry a web anchor to hold the position temporarily if forced to retreat."

"Excellent, Cadet Olesen," the Commander said.

"One possibility," Cadet Natzet suggested, "is to wait until all or most of the enemy ships are trapped in the web, then send one or more of your own ships outside of it to fire on the rear shields of the trapped ships."

"It's unlikely that he would be that stupid," the engineer responded, "but the possibility that the Tholians could do that explains why the Klingons never commit their entire force to enter the web."

"If he was stupid enough to get caught," Cadet Olesen interjected, "the Klingon could still do a high energy turn and shoot back."

"Of course, he could only do that once," the Marine cadet remarked. "On the other hand, if the position he occupies in the web is carefully selected to allow him to fire at units trying to reinforce it, he could stop and use a series of TACs to bring his weapons to bear."

"Does anyone have other comments on the standard web?" the Commander asked. "Ah, Cadet Traschler."

"Yes, sir. It would seem that an excellent way to avoid damage from an ESG would be to drop a web anchor, lay web, and then not move, or at least not move quickly. This creates a small pocket of web including the ship and the anchor, which, being web, is impervious to ESG damage. Also, ships behind the web pocket will be protected from SFGs, although not the ship in the pocket itself."

"The key to attacking webs is patience," Cadet Smith warned. "Don't get in a hurry and commit yourself. Webs don't move so a force using webs for defense has to have a plan to use them. Attacking successfully means discerning this plan and not following his script. And watch out for blind spots where he can power the web but can't be hit by your weapons."

"Small units with rapid-fire weapons can be very useful when attacking a web," Cadet Munter suggested. "Sending shuttles, or particularly gatling-armed fighters, into the web will give you firepower superiority over the ships behind it. They are low-cost and low-risk systems."

"Alzo," Cadet Hunter, the Kzinti exchange student, added, "while high-speed drronez will be deztrroyed strriking a strrong web, they can be launched frrom within the web and rreach the zhips on the otherr zide."

"If the web isn't maxed out," the engineer added. "If it is, or even if it's close, the drones can't climb out in time to do anything."

"Plasma bolts work well then," Cadet Smith suggested.

"Andromedans can displace your ships into webs," Cadet Medici pointed out, "requiring caution in politically confusing battles. You might be trapped if the Tholians don't feel in an allied mood. Even if not, your weapons could be blocked."

"Webs should be backed up by minefields," Cadet Natzet proposed. "Ships breaking through webs have all their energy in movement and can't reinforce their shields."

"Webs also block ship and mine explosions," Cadet Olesen responded, "so an exploding enemy ship or mine adjacent to or in the web causes little or no damage, depending on the strength of the web."

"Webs block stasis field generators," Cadet Crull added.

"Any comments on classic web scenarios?" the Commander asked.

"The best solution to a pinwheel in a small web is to surround it with mines and leave it alone," Cadet Griffith recommended.

"Onion peeling is almost impossible," Cadet Bayless concluded the discussion. "Unless you have an overwhelming superiority in ships. You have to count on putting six ships into each layer of web and losing three of them in the process. The defender can knock out two adjacent ships and slip a PC out to pump up the web."

"Now let us turn our attention to the web caster," the Commander turned to another page. "Cadet Chitwood, did you have a comment?"

"Just a comment, sir. Never, ever, ever attack Neo-Tholians through an asteroid belt," Cadet Chitwood drawled with a thick southern twang. "The cast webs will be anchored and will decay very slowly. Worse, the web solidifies instantly if it is anchored on both ends, allowing you no chance to avoid it. Before you know it, you will be entirely boxed in and will not see home again."

"A somewhat dramatic picture, Cadet," the Commander replied, "but one that shows the key point. Cast webs are not anchored unless there is an anchor point already present. As these can be seen and plotted, you should be able to avoid the problem, allowing us to dispense with further discussion of the point.

"What methods can be used to best employ free-standing cast webs?" the Commander asked. "We've all read the standard tactics. Let's hear your ideas. Anyone have anything new?"

"The most important feature of a web caster is its ability to cause enemy ships to break down," Cadet Quinnelly insisted.

"That's overrated," Cadet Bayless responded. "Only a fool would drive a ship into your position fast enough to get caught. If he's going fast enough to break down, he's going fast enough to evade the web. You can't form a wide enough barrier because the free-standing webs can't link up."

"True," Quinnelly admitted, "but you do force him to make a less than optimum approach. Catching him in a web requires perfect timing. You have to select a target that's going fast enough and lay a wide web across his path, far enough in advance that it will solidify before he reaches it, and close enough that he can't sideslip around it."

"Which is almost impossible," Bayless replied. "The point is not that the web caster can break down enemy ships, but that it forces them to move where and when you want them to because they desperately want to avoid hitting it."

"Of course," Cadet Yen added, "Tholians can forgo their web passage ability and use cast webs to slow down their own ships."

"Maneuver so that the enemy ship is between two of your own ships," Cadet Treschler suggested, "one of which has a web caster. Then cast a web between the two ships. Being anchored, the web will not collapse. Since your ships are at opposite ends of a straight web, the trapped enemy ship cannot fire at either because that would be firing down the length of the web. If he's going fast enough, he'll break down right there. There is the problem that the anchored point ships will break-down as well if they are moving fast enough.

"Of course, an asteroid will do for an anchor just as well, but that's an obvious danger zone the target will avoid," Treschler finished.

"Must be nice to only have to fight idiots," Cadet West mumbled. "Anyone who gets between two Tholians 50,000 kilometers apart is asking for it."

"You might consider what effect this has on a base, even a starbase," Cadet Treschler replied.

"By using two web casters to create a pair of 30,000-kilometer webs," Cadet Leahy explained, "you effectively trap the enemy ship in a globular web."

"Wrong, Cadet!" the Commander snapped. "Three errors. One: Free standing webs cannot be cast within 10,000 kilometers of each other, so your circle will always have holes he can escape through. Two: One web can't be cast through the area occupied by the second, so you'd have to cast them sequentially, giving him time to react. Three: The web takes a distinct amount of time to solidify, and if he's doing warp 2.52 or better, or is able to accelerate, he'll be out of the circle before it forms. Obviously, you need more time to think about this subject, Cadet. I'll arrange for you to spend the next 48 hours flying a Klingon frigate against a Tholian web in the simulator.

"Anyone else think they know how web casters work?"

"Web casters can be used in politically confusing cases," Cadet Porteous began tentatively, "when there are forces from three or more powers. Cast webs can be used to separate allies or to wall them in and let them fight each other."

"A rather exotic use for the weapon," the Commander responded, "but one suitable to the Tholian mind. Next?"

"Web casters are ideal for base assaults," Cadet Yamane insisted. "Carefully placed webs block his weapons, and he cannot maneuver around them. Tholian ships can maneuver behind the webs to fire phasers at the base or to place mines to surround and neutralize it. Of course, this works very well on a planet, too."

"Web casters," Cadet Porteous pointed out, "can create a temporary defensive screen behind which ships can drop shields and lay transporter bombs, or transfer cargo, or whatever needs to be done."

"And they can temporarily shield a ship that has had its shields knocked down," the engineer added.

"Cast web can force the enemy to give up erratic maneuvering," Cadet Yen pointed out. "It can also block transporters if the enemy is trying to transfer crews or steal cargo.

"Cast web is great for approaching some monsters. You can gather information from a close approach without taking damage."

"Web casters would be vital against ISC echelon formations," Cadet Crull avowed. "They can block the fire of the large PPD-armed ships, leaving the smaller ships to be overwhelmed with firepower.

"Also, web casters can block a ship with a stasis field generator from getting a chance for effective fire."

"Drop your sshieldss," Cadet Sslitz, the Gorn exchange student, recommended, "then placse miness with transssporterss and have a friendly Tholian sship protect your open sshield with a casst web."

"Lay two webs parallel to his direction of approach, one just to either side of his ship," Cadet Lee proposed. "This will form a tunnel that he has to come down. He can't move to one side, or he'll be trapped in the web. He can't turn another shield to face you because that will run him into the web. When he gets close, you just drop a mine out the shuttle hatch and sideslip through your own web out of his range. Then he doesn't have any choice but to let his ship be trapped or to hit the mine."

"Hard to pull off," Cadet West shook his head. "The corridor has to be too wide to keep him from escaping before it sets."

"That will work even better," Cadet Weidner added, "if you flood the corridor with seeking weapons."

"Which Tholians don't have," Cadet Hack pointed out.

The Commander pointed to another cadet.

"When approaching a web caster, use several speed changes to confuse his plotting," Cadet Crull suggested. "He can't trap you if he can't predict where you will be."

"If you guess lucky," mumbled the engineer.

"Zwordfizsh dronze can be verry uzeful," mentioned Cadet Hunter. "When they become trrapped in the web, they can fire a phazzerr at the zhip behind it."

"The Tholians could lay web through a suspected mine-field," Cadet Bayless recommended, "then drive their ships down the web. Any mines set off will be reduced in their effect."

"If he lays a free-standing web in front of you, fill it with drones so that they will all release at the same time," Cadet Wong proposed. "That will create a massive drone wave."

"The Tholian would probably just lay more webs behind it," the engineer commented. "Plus, you have to be careful with the strength of the web and the speed of the drones, or they will be destroyed on impact. It's a waste of drones."

"But you forced him to," Kaufman responded. "More likely he'll concentrate firepower on the trapped drones, picking them off at leisure."

"Or just use T-bombs," Cadet West insisted.

"Andromedans can displace across webs," Cadet Daybell pointed out, "making them very dangerous opponents."

"You can hurt them before their scanners stabilize," Cadet West remarked. "If you're ready, they'll see it and they won't try the jump."

"They can also displace Tholians out of position," Medici added "but not if they are behind a web."

"You can string the web in rows toward a variable pulsar," Cadet Spencer commented, "providing considerable protection."

"A final topic on this subject," the Commander began, turning to a final page of his file. "Many Tholian ships are being fitted with snares replacing their standard web generators. Any comments on their use?"

"The standard uses are to block seeking weapons and expose cloaked ships," the engineer responded.

"Snares are better against plasmas than against drones," Cadet West added. "They cost the plasma its more powerful ranges."

"Very good, Cadets," the Commander remarked. "There are some new datafiles in the student computers which you should review.

"The web caster also has a powerful direct-fire application known as 'webfist.' This is an option available to web caster equipped units, and it greatly enhances their firepower at most ranges if simply casting web is not a good idea.

"The Seltorians possess a weapon known as 'web breaker' that generates a countervailing wave which degrades webs and can cause them to collapse.

"All right, cadets," the Commander said. "If you'll proceed to the simulators, we'll see if you can use what you know."

The cadets filed out of the classroom and toward the simulator with a mixture of enthusiasm and determination. ★★★

FIGHTING THE ISC

The Commander stepped up to the podium, placed his file of notes on the lectern, and rapped his pencil for attention.

"Cadets, please take your seats." The class quickly settled into order. "Today we will begin our discussion of the ships, weapons, and tactics of the Interstellar Concordium. First, we should say that while we will be discussing how to fight ISC ships, no hostilities have been initiated between the Federation and the ISC." The cadets shifted impatiently. They had heard the standard disclaimer before.

"As you know, they have remained neutral in the current conflict. Even so, they could enter, on either side or on their own side, at any time. And since the war appears to be drawing to a conclusion, we must look to the future." The cadets groaned in response to another rumor of impending truce talks. Such rumors had been rampant since Operation Remus.

"This discussion will begin with their unique weapon, the plasmatic pulsar device. Can we begin with a basic definition?" The Commander nodded to the engineering cadet.

"Direct-fire weapon requiring an arming cycle similar to photon torpedoes," the engineer began. "Operates with a carrier wave which locks onto the target; this is known as a wavelock. The weapon fires up to six pulses down the carrier wave. The wave continues trying to achieve a wavelock even if it fails to do so before the first pulse arrives. The effect of the weapon has a splash element which damages the shields to either side of the facing shield, but most damage is applied to the facing shield."

"Very good. What effect does the PPD have on ISC tactics?" the Commander asked.

"The PPD dictates their tactics," Cadet Gopin responded. "Because of its long effective range, the heavy ships armed with PPDs fight behind a wall of frigates and destroyers."

"Any other comments on the PPD?" the Commander asked.

"Because of the timing of its pulses," Cadet Raymond responded, "each pulse strikes independently, after the shields and systems have absorbed the previous pulse. This tends to cause more weapon hits."

"It is worse than that," the Marine cadet said. "For reasons that are unclear, pulses from multiple PPDs striking at the same time cause multiple disruptions of the targeted ship's systems."

"It can maintain wavelock on a cloaking ship," Cadet Rose added "although not to a fully cloaked ship."

"It limits your use of transporter bombs," Cadet Mahl pointed out. "You can't drop an oblique shield to lay bombs toward his formation because the splash effect of the weapon will penetrate the shield."

"Couldn't you use another shield?" the Commander challenged.

"A non-facing shield is not as tactically useful," Cadet Mahl answered.

"Due to the range factors, it is difficult for it to use its overload capability," Cadet Gopin suggested. The range spread on overloads is only 50,000 kilometers, and the average rate of closure in battle conditions doesn't allow it to get six pulses before the target is inside the minimum range. The converse is that running from a PPD overload is suicide, since it keeps you in the range bracket long enough to take all six pulses."

"An ISC ship can decrease the rate of closure by having a smaller ISC ship tractor it," Cadet Gardner recommended. "This will slow it down long enough to get off another pulse or two."

"Wrong, Cadet!" the Commander snapped. "A tractor beam from a friendly ship scrambles your tracking and keeps the PPD from firing at all. However, the PPD ship might tractor the smaller unit, or other ISC units might tractor the approaching enemy ship.

"What can be done to break a PPD wavelock?" the Commander moved on. "Or at least to reduce the damage?"

"Terrain can break the lock," Cadet Crull suggested. "Planets will block it, as will black holes and pulsars. Moons might break it."

"Electronic warfare is important," Cadet Allen began, "but even more important is the use of reserve power for EW after you are wave-locked."

"Use the ECM yo-yo," Cadet Mahl suggested. "With several repeated attempts, you can probably break the wavelock."

"Are you kidding?" Cadet Allen jumped. "There are only four pulses; at best you'll get two chances, the second one just before the last pulse."

"It might work with a scout or an Andromedan," Cadet West defended.

"Sure," Cadet Crull added. "If you have an ECM drone or MRS already deployed, you would have enough ECM for level-one counter measures, then add enough reserve power for level-two, then level-three counter measures."

Cadet Allen wasn't buying. "You'd be better off to just dump in all the ECM you can and get the best chance of breaking the lock the first time."

"Always have at least partial power allocated for erratic maneuvering," Cadet Wong said. "That way you can switch to EM after you get wave-locked and possibly break the lock."

"Use sideslips rather than turns for maneuvering during approach," Cadet West added, "so that you can turn and bring a new shield toward the PPD between pulses."

"Once the PPD starts firing," Cadet Dodd said, "the ISC ship is committed to moving forward until the fourth pulse or it will lose the carrier wave when it turns. This is an excellent time to cast a web in front of the ship. Even though it won't be effective quickly enough to block the fire, the ship will run into it if he doesn't turn away, and when he turns, he'll lose wavelock."

"He can outmaneuver it," Cadet Crull responded. "He can change speed if he needs to."

"Launch a wild weasel," Cadet Hood recommended. "Even though it won't distract the wavelock, the extra ECM might break it."

"Stop in front of the ISC and you'll die," Cadet O'Kay snorted.

"PPDs are vulnerable to electronic warfare," Cadet Schultz added. "Once a ship is wavelocked, you can have your scout loan it ECM."

"Let us now turn our attention to the ISC echelon formation," the Commander said as he turned another page in his file. "Can we begin with a basic definition?"

"A tactical formation based on the PPD weapon," the engineer began. "Squadrons will form two ranks, fleets three. The core ship or ships will always be PPD armed, and usually the largest ship in the formation. The second rank of a fleet will contain the carrier, and/or PF tender, as well as the cruisers, and sometimes the scout. The front rank, known as the 'gunline,' will contain only frigates and destroyers, but will amount to half of the total ships. Occasionally, there will be a fourth echelon, this will usually be a scout, sometimes a carrier or PFT, and rarely a crippled ship. Even more rarely, it might be something the ISC wants to defend, like a tug. In a full fleet formation, the gunline may be 150,000km across and the ranks up to 40,000km apart. The ISC is absolutely fanatical about the formation; even a destroyer and two frigates will try to form one."

"And what is the point of all this? Cadet Crull?"

"It's an integrated teamwork approach," Cadet Crull began. "The gunline allows the heavy ships to engage or disengage at will. If your ships are damaged, his heavy ships will close up on the front line and destroy you. If you are winning, the heavy

ships will pull out. If you try to penetrate the gunline, you'll be chewed to ribbons before you can reach the big ships."

"Very good, Cadet," the Commander responded. "As noted, the ISC are predictable. They will always form an echelon. Find a way to defeat the echelon, and you have defeated the ISC. They literally don't know any other way to fight. Any comments on how to defeat this formation?"

"Chew up the gunline first, and deal with the big ships later," Cadet Peterson suggested.

"That's just what he wants you to do," Cadet Greenberg responded. "While you're shooting up frigates, his cruisers are pounding you with the heavy guns. If he gets in trouble, his big ships can escape unscathed. You have to trade long-range shots with the heavy ships."

"Doesn't work," Cadet Allen responded. "His weapons are more suited to long-range combat than your own. Plus, you have short-range targets shooting at you and he doesn't."

"All of which, Cadets" the Commander intervened, "simply explains how the formation works.

"Now, how can we defeat it?"

"Use large numbers of seeking weapons," Cadet Frye suggested. "Since the target is unknown to the defending formation, they can't tell if the weapons are tracking the ships on the gunline or those deeper in the formation. This uses their own formation against them."

"Not rreally effective," responded Cadet Hunter, the Kzinti exchange student. "The zhipz on the gunline zeldome employ wild weazels becauze they arre too involved in the action. When the weaponz pazs thrrough the gunline, the ISC commanderr will be able to spot which zhipz of the zecond rrank are tarrgeted. Orr he can alwayz uze labz."

"Not entirely true," Cadet Frye insisted. "The gunline ships can use their own phasers, tractors, and torpedoes to defend themselves. If they do, they aren't using their firepower against you."

"But it ztill doezn't worrk that zimply," Hunter retorted. "The fleet commanderr will eitherr uze the gunline'z weaponz on the dronze orr he won't. The tarrget doezn't matter."

"Go ahead and target the gunline," Cadet Chartoff interjected. "The ships are spread out too much for mutual support. And if one of them pops a weasel, he just opened a hole in the gunline."

"Use the retrograde," Cadet Kaufman interposed in an attempt to divert the debate. "That will keep his big ships from closing the range while you chew up the gunline with selective photon volleys."

"This will force them to bring the PPDs forward," Cadet Schultz said.

"The retrograde assumes you can afford to back up," the engineer responded. "According to reports from the Gorn Confederation, the ISC has a tendency to pick fights around planets and bases that you can't afford to lose."

"Keep your speed up," Cadet Condray proposed. "Moving slowly gives the ISC too much initiative in selecting what range to fight you at."

"Time your seeking weapons to reach the PPD ships just before they will be within optimum PPD range of your own ships," advised Cadet Dodd. "He'll either have to fire early, not fire at all, or take a lot of damage.

"The classic line abreast and wedge formations," Cadet Gopin observed, "are useless against the echelon because the PPD/gunline combination will destroy the flagship. The best idea is to hang back and destroy the gunline at a battle range of 80,000km."

"That's just a retrograde," Kaufman responded, "and with the second rank 40,000km behind the gunline, you're still within effective PPD range."

"You can tackle the gunline at 120,000km," Cadet Mahl suggested, "putting you out of PPD range, but it will take longer to trash the frigates."

"Can we find something more specific?" the Commander asked.

"The echelon has two major weaknesses," Cadet Schultz insisted. "The lack of maneuverability and the non-concentration of force. While echelons can turn, they don't do it very well and the formation tends to get disrupted. Also, the ships of an echelon formation are spread out over a considerable area, allowing you to destroy one element before another can engage."

"But surely," the Commander interposed, "we have already seen that the PPD ships will simply move forward."

"This misses the point," Cadet Schultz resumed. "The echelon is wider than it is deep, and it is much more difficult for the gunline ships on the opposite flank to reach the battle than for the ships in the second and third ranks to move forward. For this reason, the best attack is against the flank of an echelon formation, concentrating power against the last two or three ships on one end of the gunline.

"You can even concentrate your entire fleet in a small area," Cadet Schultz insisted. "With massed phasers, you are proof against plasma torps, and the PPD can't destroy even a small ship until several pulses have scored. If he wavelocks a ship, just have it pull out of formation."

"It won't get very far before it explodes," the Commander harrumpfed.

"It won't have to," Cadet Schultz responded. "Ships hit by PPDs don't explode very often."

"A better target is the center three ships," insisted Cadet Chartoff. "It's a more direct route to the real objective, the PPD ships, carriers, and scouts. Besides, it divides the surviving frigates into two elements, neither of which is strong enough to attack your fleet."

"Fighters are the best attack units," Cadet Nussberger pointed out. "A squadron of 12 fighters is just as easy to deploy as a flotilla of six PFs, but will survive longer. One PPD blast is enough to wreck a PF, but is overkill on a fighter. With five or six PPDs in a typical ISC fleet, an attacking PF flotilla would be destroyed while half of a fighter squadron would survive long enough to launch weapons."

"That's right," Cadet Crull agreed. "PFs are better sent on long flanking maneuvers designed to hit the ISC ships from the rear and force them to turn their heavy weapons away from the attacking fleet."

"If the rear-firing torps don't get you," Cadet Olesen cautioned.

"Tholians can rip an echelon formation apart with their web casters," Cadet Bartley noted.

"Yes, but they rarely deploy web casters outside of their own territory," the engineer added with regret.

"Fire every weapon in the entire fleet into one ship in the second rank," Cadet West recommended. "This will destroy a key ship."

"The Hydrans are probably the only race able to charge the gunline effectively," Cadet Schultz insisted. "Their numerous fighters aren't worth a PPD shot, and their gatlings make them proof against plasmas."

"Romulan ships could cloak until they pass through the gunline," Cadet Rose suggested.

"And get plastered when they uncloak," the engineer scoffed.

"Just uncloak inside the minimum PPD range."

"And get hit by the PPDs on the next ship over or behind."

"Not to mention the phasers and plasmas," Cadet West added.

"And the rear-firing weapons of the gunline," Cadet Bayless added.

"The Andromedans will give the echelon fits," Cadet Medici chortled. "They can displace into it and displace the PPD ships out of it."

"Against a smaller squadron," Cadet Neidigh interjected, "you should try to overrun the gunline immediately and close on the PPD ship. One solid blast and the whole formation will fall apart."

"Make sure," Cadet Schultz warned, "that squadron is a LOT smaller."

"What are some tactics used by the ISC?" the Commander asked.

"Several ships should fire their PPDs at a single target," Cadet Fay suggested. "After a dozen pulses, the target won't have any weapons left."

"The echelon allows the heavy ships to pick their battle range," Cadet Condray pointed out. "The PPD is effective out to 150,000km, well beyond the overload range of direct-fire heavy weapons."

"The PPDs can strip the front shields from approaching ships," Cadet Gopin added, "making it impossible for them to attack the gunline or to approach within overload range of a PPD ship, which usually has plasma torpedoes, too. Their best tactic is to use the PPDs to strip the facing shield from a ship approaching the gunline, allowing the ships on that line to fire into a down shield and destroy the target. Even if it survives, it has to turn away and the entire assault collapses."

"The #2 and #6 shields are more vulnerable," Cadet Bayless insisted. "The effect on all three shields is the same at long range, and you can't reinforce all of them."

"The front rank of the echelon should be carefully deployed," Cadet Crull observed. "Frigates are easily expendable. Destroyers have rear-firing torps and are harder to destroy. PFs would seem to be good gunline elements as they are attrition units, but this isn't entirely true because a PF's primary advantage is speed. They should charge forward to launch selected attacks, then retreat behind the second rank to rearm. Fighters are useful only for last-ditch attacks."

"Keep the PPD ships at least 30,000km behind the gunline," Cadet Nussberger recommended. "That will keep them out of the range of explosions going on there."

"The gunline can operate quite well on passive fire control," the Marine noted. "Their plasmas can target anything more than 50,000kms away, and they are much harder to target with standard fire control."

"Fighting Tholians is a real problem," Cadet Bartley noted. "You have to keep high energy turns in reserve and be prepared to use reserve power to speed your ship through a cast web before it solidifies. Naturally, the web caster ships are priority PPD targets."

"The gunline ships should work in pairs or trios," Cadet Crull pointed out. "They need to concentrate their firepower to cripple approaching ships. If the enemy bunches up, launch your type-F plasma torps at several targets so he won't know which one needs to drop a weasel."

"You forgot the labs," Cadet Schultz chided. "He won't."

"They could use station-keeping to stay out of overload range," Cadet Koehler recommended.

"Only in retrograde," Cadet Kaufman responded. "Otherwise keeping station means turning your stern toward the approaching enemy."

"Some of the ships might be carrier escorts," Cadet West observed, "and they will have type-D plasmas for increased defense."

"What tactics could be used if the ISC were to ally with another race?"

"Federation frigates would work well on the gunline," Cadet Olesen advised, "where their photons could be used within overload range. But heavier Federation ships are not effective in the following ranks as the PPD is better suited to the range."

"Gorn BDDs are perfect for the gunline," Cadet Crull added.

"The disruptor races have little to add to the ISC," the engineer said. "Disruptors might be of some use on the gunline, but drones add nothing to the echelon."

"Drone ships on the gunline can create another echelon, of drones, in front of the formation," Cadet Gopin pointed out.

"Lyrans can't use the echelon," Cadet Byrd commented. "The ESGs would get in each other's way."

"The Hydrans would be the most successful," Cadet Yamane informed. "The hellbore's capability to implode on the target takes advantage of the damage caused by the splash. And if the PPD can heavily damage one shield, the hellbore can get to it even if the ship turns."

"More than that," Cadet Schultz added, "the Hydran fusion/gatling ships would be superb on the gunline. Indeed, a Hydran fleet would have more success using its own echelon formation than any race other than the ISC themselves."

"An ISC-Andromedan alliance would be disastrous," Cadet Medici advised. "They can pull a ship into the kill zone, chew it up, and spit it back out."

"Have that man flogged for thinking such things," Cadet Bayless demanded. The class roared with laughter.

"Web casters would add much to the ISC," Cadet Bartley suggested. "The webs could trap an enemy or protect a weak point."

"Are there any comments on individual combat against ISC ships?" the Commander inquired.

"Close to inside his minimum PPD range, using EM of course," Cadet Neidigh recommended, "then tractor him and slug it out and close range. You'll outgun his other weapons."

"ISC ships are well built," the Marine cadet answered, "and can take a lot of damage while remaining combat effective."

"The main difference between an ISC ship and any other," Cadet O'Kay pointed out, "is that the PPD can cause significant damage at medium range. So use erratic maneuvering during the approach, and apply extra power to ECM and shield reinforcement. Don't turn until he has a wavelock, then turn back toward him as soon as you can and hit him."

"The key to success with an ISC ship," Cadet Jefferson Davis Smith insisted, "is to coordinate the PPD with your torpedoes and other weapons. Time the torpedoes to reach the target just after the PPD finishes its cycle. That way he can't turn back toward you without taking the torpedoes on a weak shield. If he pops a weasel, you can break off the action before he is clear again."

"While the PPD is powerful, it is relatively easy to destroy," Cadet O'Kay proposed. "Narrow salvoes at medium range should cause enough damage to disable it. Then you are fighting a rather weak plasma ship."

"Until he gets the thing repaired, anyway," the engineer quipped. "Which he can use easily enough. The core ships can afford to divert power to emergency damage repair."

"You can fire your photons twice before that happens," Cadet O'Kay responded.

"All right, Cadets," the Commander halted the discussion. "Let's move into the simulators for some practical experience. Your opponents will be Gorn officers who have actually fought against the ISC. You may learn something."

On the way out of the classroom, the Commander was handed a note by another instructor. It said: *The Marine leaves for Jump School next week.*

It was a pity, he thought, that the engineer was afraid of heights and had turned down an opportunity to go.   ★★★

MID-TERM REVIEW

The Commander reached for the file and leaned back at his desk to read the transcripts.

It wasn't fair to eavesdrop on the cadets' mid-term review sessions, where the senior cadets helped the juniors brush up on their tactics. But the electronic recording system had been in place for decades and had become an institution. Listening in on the sessions not only provided an idea as to which of the junior cadets were likely to become the rising stars of their class, but also provided a check on the character development of the senior cadets. More than one graduating cadet had found himself inexplicably sidetracked into meaningless assignments because he had behaved like a pompous ass during the mid-term reviews. He began reading through the file.

Engineer: Ok, are we all set? [Numerous voices respond in the affirmative.] Who's first?

Kaufman: Cadet Beauregard, step forward. [Sound of snoring.]

Beauregard: The Cadet reports to the Review Board.

Crull: Here's the first question.

Engineer: All right, Cadet. How would you set up the defenses for a base?

Beauregard: By the standard procedures.

Crull: Which are?

Beauregard: Attach modules as appropriate for the situation. Add pods to provide additional volume if they are available. Establish a minefield around the base. Deploy captor mines, preferably under direct control, inside the minefield to provide additional firepower.

Bayless: Can you think of anything else?

Beauregard: Ask for as many ships as possible to be assigned. [Laughter.]

Crull: Perhaps you could suggest something that would be more within the control of the base commander?

Beauregard: Well, you could deploy defense satellites around the base. They could orbit the base at a distance of 30,000kms and provide additional firepower.

Crull: Amazing! I wonder why no one thought of that before?

Hack: Perhaps it's because defense satellites won't orbit a base? There isn't enough mass. It takes a planet, or at least a moon, to establish a center of orbit.

Engineer: Cadet, did you really believe that you had discovered something new? Something no base commander ever thought of?

Beauregard: Well, yes.

Engineer: Cadet, things work for a reason. There are a good many more things that have been thought of, tried, and found unsuccessful than there are things that have never been thought of. Now, you thought of this idea to use defense satellites before today, didn't you?

Beauregard: Yes.

Engineer: So why didn't you research your idea to see why no one had tried it before?

Beauregard: No excuse, sir!

Engineer: Who is next?

Kaufman: [Snort.] Ah, Cadet Burns.

Burns: The Cadet reports to the Review Board.

Engineer: [Period of silence.] Well, are you going to give me a question for Burns or not?

Crull: Give me a second. I'm trying to pick a good one.

Engineer: Well hurry up. [Pause.] All right. Cadet Burns, your photons are reloading, and a Klingon ship is approaching at high speed. Obviously he is planning to make a high speed attack run with full overloads before you can reload. What do you do?

Burns: Slap a tractor beam on him at 30,000kms.

Olesen: Whatever for?

Burns: This maneuver keeps him out of point-blank range. His phaser–2s are out of effective range. More importantly, I can control his movement. I'll be able to drop a non-facing shield and place T-bombs, then push him into them. I'll also have time to fire at any drones and suicide shuttles. Most important, he'll still be in range when my photons are reloaded.

Schultz: At 30,000kms, phaser–2s are still effective.

Crull: What if he negates your tractor beam? At a range of 30,000kms, he would have a three-to-one advantage.

Burns: Attackers seldom allocate power for negative tractor.

Zimdars: But he'll usually have power for offensive tractors, and it can be switched over immediately, unless he's trying to tractor you, in which case your tractors are wasted.

Hack: What about his reserve power?

Burns: He'll probably use it for something else.

Engineer: Are you willing to gamble on that?

Burns: Yes, I am.

West: You'll have to allocate for his maximum reserve power, plus enough to keep the tractor active, as adjusted for range. That could be 30% or more of your total power.

Gopin: No Klingon in his right mind is going to let you hold him in a tractor long enough to load photons, not at that range. If you're depending on him to use his reserve power for something else, you'd better have something extraordinary in mind that will force him to use it.

Schultz: You're going to lose a photon and half your phasers. How are you going to hurt him then?

Crull: With a gamble like this, you could lose — permanently.

Engineer: Very well, that will be all. Who's next?

Kaufman: Cadet Jay.

Jay: The Cadet reports to the Review Board.

Engineer: Cadet, what tactics would you use in the case of direct ship-to-ship combat in the region of a black hole?

Jay: When fighting near a black hole, charge the enemy in a traditional head-on combat pass. If he slows to arm weapons and reinforce the shields, you have him. Arm no weapons, but grab him with a tractor beam and drag him near the black hole. Then cut him lose and escape. You'll be going faster since you didn't arm weapons. The acceleration limits will keep him from escaping so easily, as he'll have to shift power to movement. Even if he gets out, you will have plenty of time to shoot at him from a distance or commit other mischief.

Crull: Impossible. He'll go for a narrow salvo and ruin your whole day.

Gopin: Right. He'll blow your doors off while you're playing games.

Smith: The likely damage you'll take will cost you the tractor or the power to run it.

Olesen: Arm NO weapons? You could at least have the phaser capacitors full in case he has seeking weapons!

Zimdars: Have you considered that he might tractor you?

Engineer: Your tactic is unappreciated, Cadet. Have you any defense?

Jay: Nothing to add, sir!

Engineer: Your proposed tactic cannot be accepted, Cadet. You can't gamble a starship on a trick. You need solid tactics. Who's next?

Kaufman: [Sound of a chair falling over backwards.] Cadet Millay.

Millay: The Cadet reports to the Review Board.

Crull: Here's a good one.

Engineer: Cadet, what tactics would you use against Hydran Stinger-2 fighters?

Millay: Hydran Stinger-2 fighters, with their fusion beams and gatling phasers, are deadly ship-killers at close range. The obvious solution of destroying them at long range leaves your ship without weapons to fire at the Hydran ship. A better solution is to grab them with tractor beams and hold them at 30,000kms. There they can be picked off at leisure with anti-drones (which are best at that range), rotated to face unused weapons, dragged into convenient asteroids, or (for the Lyrans anyway) held until the ESG is recharged.

Engineer: Doesn't sound that effective. The energy required to hold a fighter at 30,000kms would arm three phasers! [Numerous voices attempt to speak at once.] I see that many of you have comments.

Schultz: Risky. Stinger-2s can still scratch you at 30,000kms. And by doing a high energy turn, they can break loose and come back at you. Anyway, you can't rotate them fast enough.

Bayless: Better hope they aren't the H-types.

Olesen: Most ships don't have enough tractors to make this work.

Crull: This doesn't work with Hydrans. It only works IF there are asteroids around or IF you have ADDs or IF the fighters don't use an HET to break the tractors or IF you have plenty of power or IF IF IF...

Smith: Cadet Millay, you could call this "A desperate solution," but you could not call it a "better" solution.

Engineer: It seems your proposal is rejected, Cadet Millay.

Millay: So it would seem, sir.

Engineer: Well, work on it some more. All right, who is next?

Kaufman: [mumble] Cadet Richardson.

Richardson: The Cadet reports to the Review Board.

Engineer: Thank you for having the question ready, Cadet Crull. See here, Cadet Richardson, how would you engage an ISC echelon?

Richardson: The problem with attacking the echelon is to reach the gunline with intact shields. I would use a bold tactic and approach the formation in reverse, taking the punishment on my rear shields, using suitable reinforcement and jamming. Upon reaching the gunline, you can perform an HET to engage the ships or coast through the line and fire at the frigates from the rear.

Crull: You gotta be kidding!

Hack: Bad idea. Your rear shields are weaker, and you can't fire during your approach. You're giving him too many unanswered volleys.

Zimdars: An oblique approach would be more effective.

Gopin: Even if you managed to pull off the first part of the plan, you'd have to expose your down rear shields to the ships of the second echelon — or to the rear-firing torpedoes of the first echelon if you made the HET.

Engineer: A high energy turn is something that you do to get yourself out of trouble or win with one shot. As risky as it is, you shouldn't put yourself into a position in which the only thing you can do is make such a turn.

Richardson: I'll give the concept additional thought.

Engineer: You do that. Who's next?

Kaufman: [Snoring, followed by] What? Oh, yes. Cadet Johns.

Johns: The Cadet reports to the Review Board.

Engineer: Yes, Cadet. Your ship is crippled in the middle of an enemy fleet. What should you do?

Johns: The normal tactic is to self-destruct. Instead, just drop all of the shields and hurl transporter bombs throughout the enemy fleet. With a crippled ship, you are likely to be destroyed anyway. At least this way, you do more damage.

Bayless: Fond of Klingon cuisine, Cadet?

Johns: Sir?

Bayless: I guess you didn't consider the possibility of capture?

Johns: Sir?

Crull: Dropping your shields in the middle of an enemy fleet is to invite their marines aboard. Don't assume that the enemy will oblige your tactical ploys by responding as expected.

Engineer: See if you can get the clipboard away from Kaufman, and tell me who's next.

Kaufman: I'm awake! Cadet Arbatrov is next.

Arbatrov: The Cadet reports to the Review Board.

Crull: Here, give him this one.

Engineer: Whatever you think. Cadet Arbatrov, how would you go about designing a minefield that could not be swept?

Arbatrov: Virtually all minesweepers have enough shielding to withstand a mine explosion. Such an explosion slows a minesweeper down, but does not damage it. To insure that the minesweeper is actually damaged, set another mine (even a small one) in the same area, connected by a chain detonator, so that it will go off simultaneously. The combined explosion will cause enough damage to the minesweeper to shut down the sweeping operation.

Engineer: [Many voices try to speak at once.] Order! You'll all have your turn, one at a time.

Olesen: A chain detonator is useless if the first mine is swept.

Arbatrov: Then you could use a deadman switch.

Olesen: A deadman switch is detectable and will give the ploy away.

Hack: Invalid tactic that compromises deterrent capability.

Crull: Minesweepers don't sweep mines by themselves. They send minesweeping shuttles, or drones, or ESGs, or just about anything else to do it before they get involved. A lot of these double mines of yours will be swept before they can explode.

Gopin: The damage from a small mine won't hurt most minesweepers. Knocking out the front shield does enough good. The minesweeper isn't going to continue operations without that front shield.

Bayless: Most minesweepers reinforce their front shields anyway.

Olesen: Remember, a minesweeper has as much power as the warship it's based on, but without the heavy weapons. It's got plenty of power, and it all goes into reinforcement.

West: Unless you do it for every mine, why bother?

Engineer: Think about this some more, Cadet.

Arbatrov: Certainly.

Bayless: You might consider a captor mine, placed some distance behind your belt, instead of a second standard mine.

Arbatrov: I'll consider that.

Engineer: Star Fleet calling Kaufman. [laughter]

Kaufman: Ok, ok! Cadet Ericown is next.

Ericown: The Cadet reports to the Review Board.

Engineer: How would you deal with an Orion Pirate?

Ericown: While Orions often use non-violent combat to avoid destroying the ships they mean to capture, that system can be effectively employed against them. It increases the amount of engine damage, making his power situation critical. He'll be forced to overload his engines to make up lost power, and that will aggravate the situation.

Cree: Obviously, you haven't studied the percentages on non-violent combat, which causes 15% engine damage as compared to 22% by the standard targeting system. And, of course, with non-violent combat some 64% of your potential damage is simply lost. Few Orions use non-violent combat for the above reasons, as it leaves them too vulnerable in battles with convoy escorts.

Crull: Orions are short on internals. Giving up half of your damage for this dubious advantage is nonsense.

Bayless: Send that man to the Andromedan Front!

Kaufman: Cadet Lattej is next.

Lattej: The Cadet reports to the Review Board.

Engineer: Cadet, how would you conduct a head-on attack.

Lattej: Rather than firing at the reinforced facing shield, plot a high energy turn and (after taking his best punch) fly over him and turn to face his rear shields. The trade-off between losing a couple of weapons and hitting a weaker shield can be profitable.

Olesen: Bad idea. It gives the initiative to the enemy, who can fire at whatever range he wants to.

Gopin: If the enemy has power reserved for a high energy turn (and most will), you will lose.

Schultz: Some ships, such as the Hydrans, ISC, and most drone users, could use rear-firing weapons.

Kaufman: If he dropped a mine out the shuttle hatch, you are going to hit it full speed with a down shield. It's a good way to win or lose in a hurry.

Crull: If there is a PPD, EPT, or hellbore in the area, you're going to be in even more trouble.

Bayless: Try that with a Kzinti, and he'll eat you alive.

Gopin: Or lightly baked and seasoned with herbs.

Engineer: Your tactic cannot be accepted, Cadet.

Lattej: I'll review the situation.

Engineer: At length. Who's next?

Kaufman: Cadet Spitzer.

Spitzer: The Cadet reports to the Review Board.

Engineer: How would you best employ plasma bolts?

Spitzer: The key range for plasma bolts is 90,000–100,000kms. At that range, bolts have a 50% chance of a hit, while photons have only a 33% chance. Firing at this range also gives you a chance to turn away before entering overload range if you miss.

Hack: He's trying to match bolts against photons, and it won't work.

Schultz: It might if he can cloak or lay mines while retreating.

West: And if a seeking torpedo would have no chance of a hit.

Hack: If you can predict that, you're ready for a command.

West: Thank you. Thank you very much.

Bayless: Proximity photons have a 66% chance of a hit.

West: But they do less damage.

Schultz: And if you miss, he keeps coming for a phaser duel.

Bayless: Let him!

Engineer: Anyone else?

Zimdars: Invalid concept. Wastes a weapon that is slow to reload.

West: If he's going fast enough to avoid the torps, or has weasels warmed up, it would be a waste not to bolt them.

Smith: Bolts are more of a consolation shot.

Zimdars: I suppose you could bolt them to take advantage of a down shield that's about to be turned away.

Engineer: Think about this one some more, Spitzer. Next?

Kaufman: Cadet Stejay.

Stejay: The Cadet reports to the Review Board.

Engineer: Cadet, how would you best employ the Federation destroyer?

Stejay: In fleet actions the Federation destroyer is a liability. With a cruiser's weapons (that it can't afford to arm) behind a destroyer's shields, it is the juiciest target in your fleet. If you want a destroyer to survive for its second salvo of photons, keep it out of the action, firing prox-photons at long range. A pair of destroyers provides a firebase, and the long range makes them unprofitable targets. Further, this constrains the enemy's maneuvers as he can ill-afford to turn weak shields toward a firestorm of prox-photons.

Smith: I can't agree that the destroyer is a liability. They can follow the cruisers and give the enemy a difficult choice of targets.

Crull: Klingons will stay away from a ship with four overloaded photons.

West: The destroyer can't move with overloads, but normal loads will do.

Engineer: Were the Commander here, he would doubtless assign you to write a report on the best employment of the destroyer.

Stejay: Doubtless. I will give the matter more thought.

Engineer: You do that. I think we can end this session now. The Commander advised me that there would be a special program in the simulator for us at 1600, which is about 10 minutes from now. Let's move, people.

[Sound of chairs being moved and general chatter.]

The Commander closed the file and put it aside. They were basically good cadets. Some of them had a lot to learn, and some of them would learn it before graduation. Others would learn it in combat.   ★★★

THE TACTICS BOARD

The Commander, certain that his door was locked, leaned back and put his feet on his desk to read the transcripts. It had been a wise move to institute weekly tactics boards run by the senior cadets. As the transcripts showed, the junior cadets were getting some good tactical training, while the senior cadets were not only sharpening their own tactical skills but were also learning leadership and how to conduct meetings. There were some problems, of course. Some of the junior cadets weren't going to make it into command courses, and some of the senior cadets wouldn't make it out of them, but all-in-all this was a good crop of cadets. He began reading through the file.

Engineer: Let's get going. Everyone ready? [Numerous voices respond in the affirmative.] Who's on first?

Crull: No, who's on second. What's on first? [Laughter]

West: Actually, Who was on first, What was on second, and...

Engineer: Let's not start that. Kaufman, who's first in line?

Kaufman: Cadet Jamler, step forward.

Jamler: The Cadet reports to the Tactics Board.

Crull: I picked out this question just for you.

Engineer: And it's a good one, judging from the actions in the simulator last week. Cadet, what tactics should a Lyran ship use to employ his ESGs offensively?

Jamler: Lyran ships should use their phaser-3s to clear a path for the ESG. The enemy will usually be desperately trying to throw just about anything in your way, including drones, shuttles, etc. Using the phaser-3s will keep the ESG at full strength for its primary offensive mission.

Crull: I agree fully. It's almost impossible to avoid an ESG-ship that is determined to ram you. You may also find it necessary to use your phaser-1s and even disruptors to clear a path in some cases.

Bayless: I cannot agree. It's better to use your ESG at whatever strength it has and fire your phasers at the enemy.

Engineer: Perhaps you should evaluate where your weapons will do the most good? Using disruptors on a drone is inefficient.

Zimdars: If your ESG is set at a radius of 10,000kms or more, as is normal for an overrun, your ph-3s cannot destroy the approaching objects.

Olesen: The phaser-3s will at least reduce the loss of ESG power by reducing the drone. Just don't waste another phaser-3 overkilling it.

Gopin: Using all of your phaser-3s before you ram can leave you facing a Kzinti drone swarm with unloaded weapons.

Hack: You'd be better off firing the phaser–3s at the enemy ship when the ESG hits. This would cause the Mizia effect if you can get internal damage both times.

Schultz: Actually, a Lyran ship trying to ram must expect to get hit with a full alpha strike on the way in. It will probably lose one ESG and a couple of phaser–3s to that volley, so you may as well let them take care of any drones before you lose them.

Engineer: Your tactics are not entirely unsound, Cadet. I suggest that you test them and develop parameters to determine when they are, and are not, appropriate.

Jamler: Thank you, sir.

Crull: Were we ever that bad?

Kaufman: That bad, and worse. Some of us still are.

Crull: You have someone specific in mind?

Engineer: Excuse me. Who is next?

Kaufman: Cadet Jonapens.

Jonapens: The Cadet reports to the Tactics Board.

Engineer: Cadet Crull, you have outdone yourself with these questions. Cadet Jonapens, what is the standard doctrine for destroying a ship held in stasis, or rather, for preparing its destruction immediately after release?

Jonapens: Standard SFG tactics call for large numbers of seeking weapons to be launched at the trapped ship, which is released from stasis just before they arrive. Overloaded weapons can be fired when the SFG is released to down the shield which the seeking weapons will strike.

Engineer: A good recitation of the doctrine, Cadet. However, a successful commander must also be an innovator. Can you suggest any other actions you might take? Any other ideas or opportunities you see here?

Jonapens: I would suggest that you consider the possibility of laying a mine near the ship, either by transporter or by having an MRS carry it out. Before trapping an enemy in stasis, be sure to knock down one of his shields and place the mine so that when he moves on release the down shield will be facing this mine.

Gopin: Of course, you will set the mine to ignore drones, but when the ship hits the mine, won't the blast knock out the drones you launched under the standard doctrine?

Jonapens: Of course, sir, you must carefully coordinate the mine with any drone attacks to avoid wiping them out.

Olesen: You might make it work if all of the drones hit the ship before the ship set off the mine.

Gopin: That seems rather convoluted. You are trading the impact of several drones on a down shield for the blast of a single mine.

Bayless: Unless you don't have drones.

Schultz: The ship is going to detect the mine and try to avoid it.

Jonapens: Not if you set the mine close enough. He won't have time.

Spitzer: He's got one point, the one about the MRS. It would be suicide to send it on a mine-laying mission against an active enemy.

Engineer: Cadet Jonapens, when a ship is trapped in stasis, every effort must be made to destroy or cripple it at the moment of release. However, you should evaluate whether one weapon might not reduce the effect of another by more than you gain employing it.

Jonapens: I will study the situation carefully, sir.

Schultz: You should also study the possibility of transporting Marines on board the target ship.

Jonapens: I will consider that, sir.

Engineer: Marines? That's an amusing idea.

Schultz: You'll have to try it some time.

Engineer: I will make it a point to do so. What's the defense against it?

Schultz: Same as anything, general preparedness. You can't redeploy the defensive squads while frozen, of course.

Engineer: Of course. Who's next?

Kaufman: Cadet Eng, front and center.

Eng: The Cadet reports to the Tactics Board.

Engineer: Cadet, your are commanding a Gorn battlecruiser which has been damaged in combat. You must engage and destroy the enemy ship, which we'll say is a Romulan SparrowHawk. Your torpedoes are undamaged, but you are short of power. What do you do?

Eng: Sir, being short of power means that enveloping and shotgun torpedoes are out of the question. Standard torpedoes should be adequate to defeat a SparrowHawk; it's a smaller ship.

Engineer: OK, but let's say that you have even less power. Now what?

Eng: Ignore the type–F torpedoes unless they are already loaded. Load the type–S torpedoes only to level G. If there is a firing opportunity, you can boost them to level–S with reserve power. If no firing opportunity presents itself, you'll eventually have the power to bring them to full loads with allocated power.

Engineer: You aren't really saving that much power. Wouldn't it be better to arm one torpedo?

Eng: Not really, sir. If I'm that short of power, I won't be disengaging. The tactic ensures that I have enough firepower to force the SparrowHawk to disengage. Two torpedoes are better than one.

Olesen: Force the enemy to disengage? You were told to destroy it.

Spitzer: I agree. Two type–Gs are better than one type–S.

Bayless: Two type–S torpedoes are better than two type–Gs. The difference in power between them is minimal. This would only be used if you barely had the power to move and needed every megawatt you can scrape up. You'd be better off to leave a couple of phasers unloaded.

Crull: His tactic doesn't seem that useful to me. You won't have the power to anchor him, and that's the only way to get hits.

Spitzer: You can always bolt the torpedoes.

Zimdars: You aren't going to save that much power loading S-torps at level G. However, you'll save lots of power loading them at level F. At close range they will have the same power as the type–G and two thirds the power of a type–S.

Gopin: I don't think you should use tactics which rely on reserve power. There's never enough of it, and you have many uses for it.

Eng: The use of reserve power is an option, sir. The basic tactic is still preferable to any other torpedo loading possible with the power available.

Zimdars: If you use reserve power to increase the torpedoes to level–S, you'll have to launch them immediately.

Eng: Which is why I won't use reserve power until I'm ready to launch.

Schultz: You aren't going to have any reserve power, Cadet. If your ship has started losing any significant number of power systems due to damage, it's probably lost most of the batteries already.

Engineer: The tactic seems more theoretical than practical. It is, however, one of several options that could be considered under various circumstances.

[Sound of door opening and someone walking across the room.]

Engineer: We'll have to cut this short. I have just been handed a message that a surprise simulator engagement is to commence within five minutes. If everyone will gather up their materials and proceed to the simulators, we may have time to warm up the phasers before the Klingons attack.

[Sound of chairs, general chatter, and people leaving.]   ★★★

THE FIRST EMPIRE

F&E first came to *NEXUS* in issue #12 when the provisional map was printed in the centerfold. (Two Gorn starbases fell off of the original art before it was printed, causing no end of confusion.) *NEXUS #15* announced its release, along with an entire page of errata. The last three issues printed two scenarios, some tactics and questions, and a handful of new ships and rules. Most of this (except errata) is reprinted here.

FEDERATION & ENQUIRE

Q1301F: Why are there no forces listed on the Klingon-Lyran border in Federation and Empire? Do they trust each other? How would a war between them be resolved?

A: The forces deployed on that border are drawn from the respective Klingon and Lyran Home fleets. These forces are, however, included in those fleets rather than a special border fleet to allow greater flexibility. If the Kzintis are making trouble, forces from the Klingon southern reserve fleet and Lyran Enemy's Blood Duchy would be used. If the Hydrans are making trouble, forces from the Klingon northern reserve fleet and Lyran Red Claw Duchy would be used. If there is a war between the Lyrans and Klingons, assume a border fleet equal in size to the Home Fleet of the race, but drawn at player option from any Klingon Reserve, Lyran Far Stars Duchy, and/or Home Fleet.

Q1302F: Can I use the WE/KE conversion to convert a WE into an SE or FE?

A: No, those require standard conversions. The WE/KE conversion is a production line; the parts are already on order.

Q1303F: Can I build extra modules for my SparrowHawks to make conversions easier?

A: No, and why would you want to? You can build those modules when you need them, when the ship comes in for a module change. Rule (433.432) says that you can pay this cost at the time of the change, even during the Movement Phase if you like.

Q1304F: Why can't you start building a new Kzinti shipyard on Turn #1? Unless the Klingons are total idiots, the capital will fall by Turn #5 and the Kzintis will be reduced to a bookkeeping entry until Turn #12!

A: In the first place, the Kzinti capital doesn't always fall, but to answer your question, it's a matter of game mechanics, economics, and politics. Any Kzinti Patriarch who started building a new shipyard would be admitting that he could not defend the capital. This would either result in devastatingly low morale, open rebellion among his fleet commanders, or a quick peace treaty. The construction of a new shipyard would mean the dismantling of key elements of the original shipyard. The capture of a capital is accompanied by a traumatic shock to a race's economy, and it should take several years to get over this. The prototype rules for ECO WAR include provisions for building "minor" shipyards that could later be upgraded. That will solve some of the problem.

Q1305F: Why don't you allow higher command ratings when attacking starbases? With a command rating of 10, even if increased to 11 with a command point, you can't generate enough points to hit the base with directed damage.

A: We did it that way on purpose. The dynamics of the game (e.g., how fast the Coalition can overrun the Hydrans) is based in large part on how hard it is to kill the various types of bases. To allow more ships into such a battle would literally unhinge the game. If you really want to kill the base, you can take your lumps and use SIDS against it. To quote a legendary captain: "There's a reason why things work the way they do."

THE ISC FOR F&E

NEXUS #17 presented the first draft of the ISC rules. The data given here is a step beyond that, enough to cover the period Y180 through Y185. Counters are printed on one of the inside covers. Photocopy them onto yellow cardstock. You will need two copies of the pod counters (more or less).

(391.0) ECHELON TACTICS: This provides a combat advantage in that the battle force in echelon formation has a higher battle intensity factor than its opponent, and some of the ships in the echelon have the formation bonus.

(391.1) QUALIFICATION: To qualify for an echelon, the battle force must include at least 6 ships (not non-ship units or fighter or PF ship equivalents). Battle forces of 6-7 ships must include at least one ship equipped with a PPD. Battle forces of 8-9 ships must include at least two ships armed with PPDs. Battle forces of 10+ ships must include two ships armed with PPDs and at least two additional ships with an attack factor of 8 or higher. In all cases, the flagship of the echelon must be armed with PPDs. If no PPD-armed ship is available, or if the only PPD-armed ships are not among the three with the highest command ratings, the battle force cannot operate in the echelon formation.

ISC battle forces are never required to use the echelon even if they qualify for it. This is at the ISC player's option.

NOTE: Those ISC ships armed with PPDs are marked with a black dot on the counter. Also note, all ISC battle stations and starbases have PPDs and can serve as "core" units.

(391.2) COMBAT EFFECT: If the battle force forms an echelon formation, it rolls for damage to the enemy battle force with a battle intensity 2 points higher than would normally be the case. If this and a Variable Battle Intensity die roll produce an intensity of more than 10, treat it as 10. **EXAMPLE:** The Gorn player selects a battle intensity of 2; the ISC player selects 4. This would normally mean that both forces would fight at a battle intensity of 6. However, because the ISC battle force qualifies for the echelon bonus, the ISC player will use a battle intensity of 8 to determine the damage he has scored on the Gorn battle force. The Gorn player will use a battle intensity of 6 and has less effective directed damage against the core ships.

(391.3) CORE SHIPS: Battle forces with 6-7 ships have one core ship. Battle forces with 8-9 ships have two core ships. Battle forces of 10 or more ships (including the use of command points) have three core ships. A base, if any, must be one of these core ships. Ships without PPDs cannot be placed in the core unless all ships with PPDs are already in the core and there is space remaining within the limit. Core ships (not bases used as core units) automatically have the formation bonus; no other units [except the free scout (308.53)] can be given the formation bonus (308.7).

(391.4) WEB CASTERS disrupt the echelon. See Civil Wars.

(391.5) SCOUTS: Free scouts are not counted for the qualification in (391.1) above. Scouts that are part of the battle force, i.e., occupying a command slot, are counted as part of the qualification but are, of course, more susceptible to destruction. The free scout can still be added to an echelon normally as if part of any other battle force.

(391.6) CARRIER GROUPS: ISC carrier escorts DO receive the escort bonus. The carrier itself (not the escorts) can be a core ship but will not receive the formation bonus (308.74). Alternatively, you can break up the group (after forming the battle force) and give the carrier the formation bonus, but the escorts won't receive the escort bonus and will lose attack strength (515.54).

MISC RULES: TG must have 2 pods; these can be of mixed types; TG can carry but not use L-pods. LTT can only use L-pods; carries 1 at a time. LTT can carry but not use other pods. An ISC TG can carry a PFP (carrying 3 PFs) and 1 other pod.

713 ISC ORDER OF BATTLE (Y180)

The premise of this article is that the ISC became (in Y180) more aggressive than they historically did. Players might decide to start in Y168, in which case delete the PWC (Pre-War Construction) entries. Players might decide that the ISC will:

- defend its own borders,
- launch a full-scale attack on both the Romulans and Gorns (note that they must attack both equally),
- "expand aggressively" in which case the ISC cannot enter (by operational movement) a Romulan or Gorn hex (original territory, including the Romulan 603.15 territory which must be explored) which contains a single ship, PDU, or base of the originally-owning race. In this case, the ISC can attack any units in ISC territory or in a Neutral Zone. This would also apply to Federation (Tholian, Klingon, etc.) territory if they get that far. They could enter such a hex by reaction or reserve movement.

HOME FLEET: Set up in 5910. 2xCA, 1xTG, 3xCL, 3xDD, 1xSC, 6xFF, 1xLAV, 1xMB, 1x FRD, 1xResv.

PWC: 1xDN, 1x [CVA + CE +2xDE], 1x [CV + CE + DE + FE], 1x [CVL + DE + FE], 3xCC, 2xCA, 1xCL, 2xCS, 1xDL, 1xDD, 5xFF, 1xTG, 2xLTT.

2nd FLEET: Set up in provinces 6003, 5903, and 5905. 1xCA, 1xCL, 2xDD, 7xFF, 1xSAV.

PWC: 1xDN, 1x [CV + CE + DE + FE], 1x [CVL + DE + FE], 1x [CVE + DE + FE], 2xCC, 2xCA, 2xCL, 1xCS, 1xDL, 1xDD, 3xFF, 1xSC, 1xTG, 1xFRD, 1xMB.

3rd FLEET: Set up in provinces 5604, 5306, 5606. 2xCA, 1xTG, 2xCL, 2xDD, 1xSC, 7xFF, 1xSAV, 1xMB, 1xFRD, 1xResv.

PWC: 1xDN, 1x [CVA + CE + 2xDE], 1x [CVS + CE + DE + FE], 1x [CVLS + DE + FE], 1x [CVL + DE + FE], 1x [CVE + DE + FE], 2xCC, 2xCA, 2xCL, 2xCS, 1xDL, 2xDD, 4xFF, 1xHSC.

4th FLEET: Set up in provinces 5209, 5409, 5211, 5413, and 5411. 2xCA, 1xTG, 3xCL, 2xDD, 1xSC, 7xFF, 1xLAV, 1xSAV, 1xMB, 1xFRD, 2xResv.

PWC: 2xDN, 1x [CVA + CE + 2xDE], 1x [CVS + CE + DE + FE], 1x [CV +CE + DE + FE], 1x [CVL + DE + FE], 1x [CVLS + DE + FE], 1x [CVE + DE + FE], 4xCC, 5xCA, 4xCL, 4xCS, 2xDL, 4xDD, 14xFF, 1xHSC, 1xSC, 1xMB.

NOTE: In Y181, the ISC divided the 4th Fleet, establishing the 6th Fleet in provinces 5209 and 5409 with one of the Resv markers.

5th FLEET: Set up in provinces 5716, 6016, and 5713. 1xCA, 2xCL, 2xDD, 7xFF, 1xSAV.

PWC: 1xDN, 1x [CVS + CE + DE + FE], 1x [CVL + DE + FE], 1x [CVE + DE + FE], 2xCC, 3xCA, 1xCL, 2xCS, 1xDL, 1xDD, 3xFF, 1xSC, 1xTG, 1xFRD, 1xMB.

SURVEY SHIPS: 8xSR, all off map. See (505.0).
PODS: 4 BP, 4 VP, 2 VAP. L-Pods: 1 LBP, 1 VLP, 0 PLP.

CONSTRUCTION

(Y168)	Spring:	1xCL, 1xDD, 2xFF
	Fall:	1xCA, 1xCL, 1xDD, 2xFF
(Y169+)	Spring:	1xCC, 1xCA, 2xCL, 2xDD, 2xFF. (In Y171+, Spring CC replaced by DN)
	Fall:	1xCC, 1xCA, 2xCL, 2xDD, 2xFF.
(Wartime)	Spring:	1xDN, 1xCA, 3xCL, 6xDD, 6xFF.
	Fall:	1xCC, 1xCA, 3xCL, 6xDD, 6xFF.

ALLOWABLE SUBSTITUTIONS

CVA for DN in Y176+.	SCS for CVA in Y184+.
CV for CA in Y172+.	CVS for CA in Y173+.
CVL for CL in Y171+.	CVLS for CL in Y172+.
BCV for CC in Y180+.	BCS for CC in Y183+.
CC for CA in Y180+.	CVE for DD in Y170+.
CS for CL once per turn.	DL for DD once per turn Y169+.

LTT for CL once per turn in Y175+.
Tug for CA once per year OR can convert one CA to TG once per year but not both.
HSC for CL once per turn in Y175+.

PRODUCTION NOTES

PODS: Can build four (total) BPs in Y169+. Can build four (total) VPs in Y175+. Can build two (total) LBPs in Y175+. Can build one (total) VLP in Y175+. Can build two (total) VAPs in Y178+. [Pods listed prior to this point are already on the OB list.] Can build four (total) PFPs in Y184+. Can build one (total) PLP in Y185+.

CVs: Can produce (by any means) no more than one carrier (BCV, BCS, CV, CVS, CVL, CVLS, CVE) plus one CVE per turn, including no more than one CVA/SCS per year. At war, can produce (by any means) no more than two carriers plus one CVE per turn, including no more than one CVA or SCS per year and no more than one BCS/BCV per turn.

Six "free fighter factors" per turn; see (431.74).

PPDs: The ISC cannot produce (by any means) more than four ships or pods per turn equipped with PPDs.

CAs can be overbuilt, but not CCs.

751 CONVERSION COSTS (Individual ships)

DN to CVA	2 pts	CL or CS to HSC .... 4 pts
DN or CVA to SCS	5 pts	CL to CVL .... 2 pts
CC to BCV (Y180)	2 pts	CS to CVLS .... 2 pts
CC to BCS (Y183)	5 pts	CL to CVLS .... 3 pts
CA to CC	2 pts	CS to CVL .... 3 pts
CA to CV or CVS	2 pts	CL or CS to LTT .... 3 pts
CV to/from CVS	2 pts	DD to DL .... 2 pts
CA to TG	4 pts	DD to SC .... 2 pts
CL to CS	2 pts	DD to CVE .... 2 pts
CL or CS to CE	1 pt	DD to DE .... 1 pt
CL or CS to PFT	5 pts	FF to FE .... 1 pt

752 SPECIFIED CONSTRUCTION COSTS

16 = DN; 6 = LBP, PLP; 5 = DL; 4 = DD, BP; 3 = FF, PFP; 2 = VAP (+fighters), VLP (+fighters); 1 = VP (+fighters).

754 COMMAND RATINGS:

10 = DN, CVA, SCS, SB;
9 = BCV, BCS, CC, BATS;　　8 = CA, CV, CVS, TG;
6 = CS, CL, CVL, CVLS, SR, PFT, CE, HSC, LTT;
5 = DL, CVE;　　4 = DD, SC, DE;　　3 = FF, FE.

(757.1) CARRIER GROUP COMPOSITION　　(757.7)

4CVA	CVA	CE	DE	DE	Heavy
4SCS	SCS	CE	DE	DE	Heavy
3BCV	BCV	CE	DE		Medium
3BCS	BCS	CE	DE		Medium
4CV	CV	CE	DE	FE‡	Medium
4CVS	CVS	CE	DE	FE‡	Medium
3CVL	CVL	DE	FE		Medium
3CVLS	CVLS	DE	FE		Medium
3CVE	CVE	DE	FE‡	(757.4)	Light

‡ These escorts are above the requirements of (515.2).
(757.8) The CE is a heavy escort; DE and FE are light escorts.

758 SHIP EQUIVALENTS

SHIP	DRN	SCOUT	ESC	PFT	LTT
CL	–	HSC	CE	PFT	LTT
DD	–	SC	DE	–	–
FF	–	–	FE	–	–

759 CAPITAL: Veltrassa: 1 major★, 1 major, 2 minor, starbase.
Pronhoula: 2 major, 2 minor, 1 starbase.
Rovilla: 2 major, 1 minor.　Korlivala: 2 major, 2 minor.

761: EW: HSC = 4†; SR = 3†; SC = 2; PFT = 2†.

—*Steve Cole, Steve Petrick, Tony Zbaraschuk, Jeff Laikind, Will Culbertson, Mark Malon, Bill Walter, Rich Goranson.*　　❋❋❋

F&E TACTICAL NOTES

KZINTI DEFENSES
—Admiral Alan M Gopin, Retired, USS New Jersey
The four principles of Kzinti survival are:

1. Build lots of mobile bases, and set them up in the capital.

2. Upgrade the capital's mobile bases to BATS as fast as you can, and buy some PDUs.

3. Upgrade some of the battle stations at the capital to starbases.

4. Beg the Federation for money. On Turn #7 you'll have more shipyards than money and he'll have more money than shipyards.

The key to Kzinti and Hydran survival is to keep the shipyard intact.

BUILDING REPAIR CAPACITY
— Admiral David Zimdars, Retired, USS Montana
Players with excess funds should upgrade conveniently located battle stations to starbases and (if there is still more money) build extra FRDs to increase their repair capacity. This is another reason to reinforce your capital; after a strong raid, your ships can be repaired before the next combat phase comes around. FRDs are vulnerable to directed damage during a raid on the capital, but invaluable on the strategic offensive.

DEPLOYING RESERVES
—Admiral David Crump, Retired, USS Texas
Reserve fleets should be placed where they can reach several of your forward detachments. If possible, position at least one reserve fleet where it cannot be reached (and pinned) by enemy forces, thereby preserving your reaction ability. An excellent place for a reserve fleet is a "neutralized" province, such as the Kzinti Marquis area. Note special cases, such as the trapped Federation starbase in Scenario (603.0). If there is no reserve group within range of this starbase, the Klingons can simply pull away from the front line, leaving your entire fleet idle while every ship he has reduces the starbase to scrap iron.

Rated the Best Tactical Note in NEXUS #16.

DEFEATING CARRIERS
—Cadet Malcom Scott, USS Arizona
The Kzintis and Hydrans use their carriers, with their free replacement fighters, to avoid being kicked out of the war. If they are allowed to do this too often or too well, you will be trading cruisers for fighters. Take positive action. Always use directed damage against carrier fleets. While it is only 50% effective, it's better than killing fighters, which is 0% effective in the long term. Kill the biggest ship you can, or score CEDs damage on the carrier group to force it to pull out of action. Force the Kzintis and Hydrans to fight in their own planet hexes, where you can devastate their production. Any chance you get to kill a carrier group must be taken.

FLOODING THE ZONE
— Admiral David Crump, Retired
One way of organizing an offensive is to move enough ships to pin every enemy force that is in a given area, or which can move there by Reaction or Reserve Movement. Then look at your remaining ships and determine how many battles you can fight to a decisive conclusion (destruction of a base, devastation of a planet, defeat of a fleet). If you don't have any remaining ships, you have staked out too large an area. Look for key fleets that cannot react because they do not have scouts. Pin reserve groups with frigates and a single command ship. You should plan this with the small-scale map before moving counters.

Best Tactical Note in NEXUS #17.

USING FLEET PACK
— Inspector General Felix Hack, Retired, USS California
It is tedious to work on the planet and base forms every turn in areas outside of the combat zone. A simple checkmark can serve to say "same as before" while a large X would mean "no longer exists."

The reduced scale maps can be used to keep track of provinces and (particularly) neutral zone hexes. Simply mark the letter of the race that last moved through the hex. (And remember that Kzintis are "Z" and everyone else uses the first letter of the race name.)

PLANETARY DEFENSES
— Ensign Eric Nussberger, USS Texas
When defending an important planet or capital, the player has the choice of building a battle station in the hex or upgrading the planetary defenses. The battle station discourages attacks by promising heavy casualties, but takes two turns to build and does not make the planet less vulnerable to directed damage.

Increasing the planetary defenses from a regiment to a brigade, on the other hand, adds just as many factors to the battle force, costs an equivalent number of points, and makes the planet far less vulnerable to directed damage. Even modest attacking fleets can generate the 18 points required to destroy a regiment without directed damage, and relatively small squadrons can generate the 10 points to kill one battalion with directed damage. Brigades, of course, are more difficult to destroy, although hardly impossible. Ground units, however, can't repair ships.

Once your minor planets have brigades, add a battalion to each one of them. As only four battalions can be hit by directed damage on each combat round, the extra battalion will delay the enemy's ability to devastate the planet. If possible, you might want to add the sixth and final battalion (433.424) allowed to a minor planet simply to have the extra firepower, as when defending planets all the combat abilities of any PDUs are added to your battle force.

UNIT DENSITY —Admiral David Crump, Retired, USS Texas
One of the most basic concepts in F&E is unit density, or how many combat factors you get for each ship in the battle force. Single ships are obvious (DNs are usually 12, cruisers usually 8), but carrier groups must be carefully examined. Klingon DV groups, with those silly little E4 escorts, have 17 attack factors for 3 ships, for a density of less than 6. Kzinti CV groups, with heavier escorts, have 24 attack factors for 3 ships, for a density of 8. This is how the Kzintis put together 90+ point killer fleets. But if the fighters of a CV group are destroyed, the group drops to a density of 6 and would be better replaced with cruisers. Independent fighter groups, with 6 factors per "unit," have a low density offset only by their expendability.

Rated the Best Tactical Note in NEXUS #18.

SUPPLIES ARE CRITICAL
— Cadet Robert Andrepont, USS Louisiana
The fastest way to stop your own offensive is to outrun or lose your supply lines. Have convoys, tugs, and mobile bases ready to follow up your offensive. Deploy them in the theater in advance so that you can save Strategic Movement for fighting ships.

On the other hand, you can ruin an enemy offensive if you can pin his front line fleets and send a force into his rear to take out his mobile bases, FRDs, and convoys. Major offensives often have only one or two supply routes. The 50% drop in his combat factors is devastating.

BUILD TUGS   —*Cadet Tom Ostergaard, USS California*

Never pass up an opportunity to build a tug. These ships are the most useful in the game. Your construction program depends on them. Only tugs can move, build, upgrade, and repair bases. Tugs can be used in combat (as dreadnoughts or carriers) or for supply and repair. They are the "utility infielders" of your team.

The more tugs you have, the more things you can do.

LAMINATE THE MAP
— Admiral Graeme Cree, Retired, USS Texas

Before playing F&E again, take the map out to be laminated. (You can find someplace that does this in the phone book.) This not only protects the map from spills and tears, but also allows you to mark things directly on the map with grease pencils. This can include destroyed bases, new bases, neutral zone possession, off-limits areas, etc.

HYDRANS FIRST   — *Cadet Ted Fay, USS California*

Even though the Coalition goes to war with the Kzintis first, it must give priority to destroying the Hydrans. The Hydrans must be driven off the map, with starbases built in the entry hexes and a strong garrison installed and supported by loot from Hydran territory. Failure to do so means a two-front war, and much effort will be lost shuttling ships back and forth between the two fronts trying to respond to one crisis after another. Even with the Kzintis undefeated, the front will be one continuous line along which ships can be shifted by the "Pulling the Guard" tactic. The Hydran capital, you will note, is easier to capture than the Kzinti, and there are fewer Hydran entry hexes to block.

The debate over Coalition strategy is far from over.

COMBAT MISSIONS

by David W. Crump

Each turn in F&E you must reassess what direction you need to pursue to achieve victory (or stave off defeat) and what resources you have to pursue that direction. A vital step in planning is to group ships for specific missions. In playing F&E, I have identified six basic missions: defend a position, picket duty, attack a position, strike, cover, and reserve. I will explain each of these missions and then list the requirements of each.

DEFEND A POSITION

Positions that might be considered for defense include BATS, starbases, and your capital. Your objective is to make an attack expensive for your opponent in order to deter an attack (or to win the battle if he is that foolish). Most positions cannot be defended due to limited resources. Those few which are to be defended must be carefully chosen.

An effective defense requires a large quantity of combat potential ("COMPOT") and may require a scout (but normally scout functions are available from the position to be defended). Typically, a position is defended with average quality ships (i.e., 6 to 7 combat factors per command slot — DDs, CLs, CWs, etc.). A large command rating is provided by the position in most cases, but it isn't a bad idea to have one medium command ship available (CA, command rating 8 for example) to use in the approach battle. The number of ships required is variable depending on the importance of the target. Just stack as many DWs and CWs as are needed to get the job done.

You might consider assigning high quality ships to defense in order to increase enemy casualties, but you gain the initiative by forcing a battle where your best ships are, not by inviting the enemy to come fight them.

PICKET DUTY

You will normally consider a picket force to defend BATS and mobile bases in reach of enemy forces. Your objective is to force an opponent to allocate attack forces to take territory away from you. Don't confuse a picket mission with a defense mission. A picket mission lacks sufficient forces to hold a hex against a determined attack. In effect you are keeping an opponent honest, forcing him to use his resources to take territory. If he doesn't attack, you have held both the battle station and the space for its future military and economic benefit at minimal cost. If he does attack, fight a couple of rounds and retreat with your ships. You will have siphoned off some of his attack forces on a relatively meaningless attack and done him more damage than an undefended battle station could do.

Don't squander good ships on picket duty. A couple of DDs or DWs are ample. More defeats the point of a picket mission — you want your opponent to use good ships to make an unimportant but necessary attack. This leaves your better ships fighting the important battles against fewer enemy ships.

ATTACK A POSITION

Destroying an enemy starbase is the classic attack mission. Taking a base, mobile base, or planet is simply the same basic mission on a smaller scale. Your objective is to take and hold an enemy position. Sufficient resources must remain after combat to retain the position with forward deployed forces (i.e., those left in the battle hex at the end of your player-turn). Never attack a position without the combat force to win and hold it.

To successfully attack a position requires a clear superiority of total COMPOT. A clear superiority is figured differently for each race because of the differing density (COMPOT per command rating slot) of the ships available. A race with ample high-quality ships like the Kzintis needs less of a COMPOT advantage than a race with a preponderance of mediocre ships like the Klingons.

Only experience in combat will teach you the right quantity of force to use, but make it a habit to err on the side of overkill. The cost of attacking and losing is far greater than the cost of 20 to 30% overkill. Attacking a good defense position costs much more than defending one because of the added firepower of the base or planet. You must get something for your added losses — you must win and hold your new conquest.

A key requirement of a successful attack is a sufficient number of command ships (the best you can field, 9s or 10s). Expect to lose a command ship to directed damage on each combat round, and have replacements available. You need at least one full battle force of your very best ships, with ample war cruisers to replace losses and later defend your conquest. Since you are forward deployed and without the intrinsic scout capabilities of a friendly base, a scout ship is required.

STRIKE

Your objective with a strike mission is to destroy a critical enemy target, such as a mobile base or planetary defense, but not to hold the hex it is in. Note that a strike is not the same as an attack; here you will pay a price in damaged ships for a couple of shots at the base/planet with directed damage. A strike mission is often a prelude for an attack in future turns, softening up an enemy position before launching a determined effort to conquer and hold it.

It is also a useful defensive technique, in which case it is known as a counterstrike. Any enemy attack must stage from bases or retreat to them after an attack and also must be supplied via the supply network connected through bases. A strike at a key base can delay or stop an upcoming attack.

A strike mission requires very high quality assets in both command ships (normally two 9s or 10s) and COMPOT (the

best: CAs and up), but in limited quantities. A strike group is only going to fight five rounds maximum: three rounds against the force screening the targeted mobile base (308.3) and then two rounds when it uses directed damage to first cripple and then destroy the mobile base or BATS. With the target destroyed, you retreat and then retrograde to a secure position.

Should your enemy appear weak, you may be tempted to convert a strike in progress into an attack, i.e., to try and hold the position. Avoid doing this. Only fight to the end if you have to, and only if you have prepared to. What is the point in fighting to the last ship and then retrograding a crippled fleet back to a base? Even a sudden retreat can be bait for a trap. Why leave an outnumbered force forward deployed without a scout? Only leave forces forward deployed when you have arranged, beforehand, to do so.

COVER OR PIN

Your objective is to pin down superior enemy ships in order to create an opening for your attack and strike groups. Basically, you move a force of smaller ships into a hex with an enemy force to prevent them from leaving their hex. I always determine my pins first and always move them first. Thus, I have the enemy pinned down and my hand free to attack and strike any targets available without worrying about Reaction Movement from the enemy. If you can pin an enemy reserve group, do it! This avoids nasty surprises as enemy reserves move forward.

A variation of the Cover Force is the Blocking Force. Such a fleet does not enter an enemy-held hex, probably because it's too far away to be reached. The object is to force enemy reserve fleets to take longer routes to the battle or to block them from reaching a key battle. As reserves frequently have DNs or battle tugs as their flagships, beware of the effects of (203.55) and (203.732) which might allow a critical reserve force to slip through your blocking force.

Frigates are worth their weight in dilithium crystals in the cover role. Matched with a modest command ship, they'll bravely fight one round with the enemy dreadnoughts and cruisers and leave. You take your losses as crippled frigates which are cheap and easy to repair. In the meantime your heavies are raising havoc elsewhere. Note, however, that the enemy will realize your plan and probably use directed damage to kill something. This is acceptable, as the damage that will cripple three frigates destroys only one, leaving the other two immediately available for duty.

RESERVE

Your objective is to intervene in an enemy attack and win the resulting battle, thus disrupting the enemy's plan of attack and its tempo. Placement of a reserve group is of critical importance to its value. Always be sure that the reserve group is placed out of range of the enemy's movement to keep it from being pinned by a cover group. (Off-map areas are good for this. That's how the Kzintis and Hydrans survive.) If that is not possible, then place it with other ships that can screen a cover group or, as a last resort, at a position that must be defended (e.g., the capital) so that if it is pinned it is still doing something worthwhile.

A reserve group's requirements are similar to a strike group's. You need your best command and COMPOT ships. You are limited to one battlegroup worth of ships, so make it count.

One way to tell if you aren't doing a very good job as emperor is if you constantly find yourself without enough ships in the right place to form your maximum allowable reserve groups. Take care when forming strike groups, and when retrograding, to bring a full reserve force onto a previously selected base. As that base must also be out of range of any enemy

forces, the reserve group will either be composed of newly built ships or those arriving from other theaters by Strategic Movement.

CONCLUSION

Thinking in terms of missions and objectives instead of mere battles will improve your game. Remember the difference between an attack and a strike, between a defense force and a picket force.

Plan for the mission you want to achieve, and avoid changing missions from picket to defense or strike to attack in the middle of the combat round. An attack force can always retreat (although this usually means you have been defeated), but a strike force cannot effectively stand and hold ground. Avoid making strike or picket forces too strong; avoid making defense or attack forces too weak. If you have your turn planned and have ships left over, don't just toss them into one fleet or another. See if one of your strike forces could be turned into an attack force, or if one of your picket groups could, with the extra ships, actually hold its position (usually a planet). And don't forget to calculate where your next reserve group is coming from and where it will be assembled. **OOO**

SCENARIO 681:
THE HYDRAN EXPEDITION
(Y169-Y171)   *by Frank Crull, Texas*

This scenario depicts a portion of the action which took place historically when the Hydrans entered the General War. The Hydrans attacked the Klingons and attempted to fight their way through to Federation territory. It was hoped that this demonstration of Hydran power (and willingness to fight) would induce the Federation to enter the war immediately and take advantage of the disruption of Klingon territory caused by the Hydran attack. Historically, the Hydrans failed to get across Klingon territory by the end of Y170 and abandoned the operation.

(681.1) GENERAL SCENARIO RULES
(681.11) POLITICAL RULES: Some elements of the Hydran government opposed the expedition, fearing that Coalition units might be able to get behind them and raid the capital. To account for this justifiable concern, the Hydran player is required to comply with the following requirements.
(681.111) TERRITORIAL INTEGRITY: At the start of each Hydran turn, the Hydran player must determine if any Klingon ships are in Hydran territory. If so, the Hydran player must, at the end of his Movement Phase, have as many Hydran ships in Hydran territory as there are Klingon ships in Hydran territory. (Note specifically that this refers to ships, not units, and does not include any Hydran ships ostensibly fighting the Lyrans.) This requirement must be resolved first, before any other Hydran ships are moved, and may include new production. If the total number of Hydran ships able to move into Hydran territory is less than that required, the Hydran player must move as many of his ships into his territory as possible; he further must make his "best effort" to resolve the deficiency, said "best effort" involving the movement of the Hydran ships (equal to the deficiency) closest to Hydran territory toward Hydran territory at their highest movement rate. For this section, a crippled ship counts as one-half of a ship.
(681.112) CAPITAL REACTION: If any Klingon units enter the Hydran capital, all Hydran ships within reaction range of the capital which are able to do so must move to the capital by Reaction Movement, and any reserve forces within movement range of the capital must move there.

(681.113) CAPITAL SECURITY: If at the start of any Hydran turn there are Klingon ships adjacent to the Hydran capital, the Hydran player must move a number of ships equal to the Klingon force into the same hex as the Klingon force, without removing more than one half of his ships in the capital hex from the capital hex. If he is unable to comply with this requirement, he must make his "best efforts" as above, using ships outside of the capital hex. This requirement must be satisfied before other ships (not involved in satisfying the requirement) are moved, and is to be resolved before the territorial requirement in (681.111) above. For this section, a crippled ship counts as one-half of a ship.

(681.12) ECONOMICS: The standard economic and production rules are not used in this scenario. Players do not keep track of economic points or pay for production or repair, except as noted in these rules.
(681.121) The Hydran player receives four economic points per turn starting on Turn 3. These can be used for carrier group damage steps, conversions, alternative production (e.g., replacing an HN with a CR), escort conversions, MBs, or FRDs.
(681.122) The Klingon player receives six economic points per turn starting on Turn 4. These can be used for drone ships, carrier group damage steps, conversions, alternative production (e.g., replacing an D6 with a D6D), MBs, or FRDs.
(681.123) These points can be accumulated. Each player also receives points for captured enemy planets and provinces as per the normal rules. Unused points can be accumulated from turn to turn.
(681.124) There are no "survey" points, and survey ships are not used in this scenario.

(681.13) SUPPLY: The normal supply rules and supply grid are used. Each player has one convoy (which begins in the capital hex). See the Hydran Tug Rules below for additional information.

(681.14) HYDRAN TUG: The Hydrans have outfitted one tug (the one with the Expeditionary Fleet) to serve as a mobile supply unit.
(681.141) This tug cannot be used for any other purpose. It carries the fighter conveyor pod (513.5), and 20 "ship-turns" of supplies.
(681.142) If the tug is out of supply, it can be used as a supply source for other out-of-supply ships which are stacked with the tug. Each "ship-turn" of supplies is enough to supply one ship (of any type) for one turn. If some of the tug's supplies are used, this must be recorded.
(681.143) If the tug can ever re-establish a valid supply path to a supply point in Hydran space, its stockpile of supplies is restored to the original level. The tug itself requires supplies.
(681.144) The Hydran player is not obligated to draw supplies from the tug for every ship in the tug hex, but can leave some of his ships unsupplied.
(681.145) Hydran ships can receive replacement fighters from the tug up to the limits of those carried on the conveyor pod (513.53) while out of supply. If the tug can trace a legal supply path back to the Hydran capital, replacement fighters for the pod may be purchased under (513.55).

(681.15) REPAIRS: Hydrans may conduct repairs at any of their bases in the scenario area. Klingons may conduct repairs at any Klingon base in the scenario area or in the capital. FRDs may be used. There is no cost for these repairs; it is assumed that sufficient economic points are available. Each player receives 1 repair ship per turn (at the capital).

(681.16) COMBAT: No Hydran unit in Klingon territory or a Neutral Zone hex adjacent to Klingon territory can retreat in direction 1, 2, or 3 (see hex 5702) unless it has fought at least two combat rounds.

(681.17) RESERVES: At the start of the scenario, ships in the Klingon Home Fleet Detachment and Southern Reserve fleets are marked as reserves. This status ends at the end of Turn 3 (i.e., the first turn of the scenario). Thereafter, each player has one reserve marker. (These are from the Klingon Southern Reserve and Hydran Home fleets; the other markers are used elsewhere.)

(681.18) MAP AREA USED: Units in this scenario are restricted to an area defined as follows:
   Hydran territory from hex column 06xx to hex column 12xx inclusive.
   Hydran-Klingon Neutral Zone from 0613 to 0913 to 1319 inclusive.
   Klingon territory from hex row xx11 to hex row xx19 inclusive.
   In addition, Hydran units (only) can enter Neutral Zone hexes adjacent to Federation territory and Federation territory itself.
   Klingon units (only) may move through, set up in, or remain in Klingon territory outside of the designated area.
   Units may enter LDR territory but will be immediately interned for the duration of the scenario if they do so.

(681.19) The scenario begins with the Hydran part of Turn #3 (which is the first turn of this campaign) and concludes with the Hydran part of Turn #6 (the last turn of this campaign).

(681.2) TIME TABLES FOR SCENARIO
TURN 3, FALL Y169
   Historical: Hydrans attack Klingons.
HYDRAN Available: Home Fleet, First Fleet, Expeditionary Fleet.
KLINGON Available: Western Fleet and Southern Reserve Fleet. Home Fleet Detachment is activated whenever Hydran units enter Klingon territory. Individual units of the Eastern Fleet become active whenever Hydran units move within reaction range. Units of this fleet can never leave the Klingon provinces adjacent to the Federation or Tholian Neutral Zone, even by Reaction Movement.

TURN 4, SPRING Y170: Same as Turn 3.

TURN 5, FALL Y170: Same as Turn 3.

TURN 6, SPRING Y171: The Expedition ends as the surviving ships are recalled to defend the Hydran capital. (One destroyer actually reached the Fed border, too late.)

(681.3) FLEET DEPLOYMENTS
(681.31) HYDRAN: Home Fleet (0617): 1x LM, 3x RN, 3x LN, 1x SC, 1x TG, 1x CR, 2x HN, 1x LAV, 2x FRD, 2x MB, 1x RESV.
   First Fleet: (0915, 1116, 1217, 1219, and/or 1017): 1x LM, 4x RN, 1x HR, 3x LN, 1x SC, 1x TG, 1x CR, 5x HN, 1x SAV.
   Expeditionary Fleet (0716): 1x LB, 3x DG, 3x KN, 1x SC, 1x TG, 1x CR, 2x CU, 1x LAV.
   PODS: 1x Carrier, 1x Battle, 1x Fighter Conveyor, 1x Fire support.
   PWC: Spring Y169: 1x PAL, 1x RN, 1x HR, 3x HN.

Fall 169: 1x [UH + DE + 2x AH], 1x DG, 1x TR, 3x HN, 3x CU.

NOTE: The Second Fleet and Old Colonies squadron, together with some pods and new construction, and one reserve counter were committed against the Lyrans.

(681.32) KLINGON: Home Fleet Detachment (1411): 1x D7C, 1x D7, 2x D6, 1x D5, 2x F5Q, 1x F5S, 1x [FV + E4A], 3x E4.

Western Fleet, set up within two hexes of Hydran Neutral Zone: 1x D7C, 3x D7, 3x D6, 1x D6M, 3x F5Q, 1x F5S, 1x [FV + E4A], 3x E4, 1x [CVT + 2x E4A], 1x TGA, 1x SAV.

Southern Reserve (1716): 1x D7C, 3x D7, 3x D6, 1x D6D, 1x D6S, 3x F5Q, 1x F5S, 1x [FV + E4A], 3x E4, 1x [D6V + 2x E4], 1x TGB, 1x LAV, 1x FRD, 1x MB, 1x RESV.

Eastern Fleet, set up on bases in the Federation and Tholian neutral zones 1811, 1813, 2014, 2215, 2416, 2517, or 2519, maximum of four ships (not counting fighter factors) per base: 1x D7C, 3x D7, 3x D6, 1x D6M, 3x F5Q, 1x F5S, 1x [FV + E4A], 3x E4, 1x [CVT + 2x E4A], 1x TGA, 1x SAV. These ships can be redeployed by Operational Movement before the Hydrans reach their area, but at the end of any given turn that Hydran ships are not adjacent to their deployment area, the four ship maximum per base must be met and all ships must be on bases.

PODS: 2x Battle Pods, 2x Carrier Pods.

NOTE: All other units of the Home Fleet, plus all new construction before the Hydrans attacked, were sent to the Kzinti front.

(681.4) PRODUCTION SCHEDULES

(681.41) HYDRAN: Spring Y170: 1x PAL, 1x RN, 2x HR, 1x TR, 3x HN, 3x CU.

Fall Y170: 1x [CV + DE + 2x AH] 1x DG, 2x HR, 1x TR, 3x HN, 3x CU.

The Hydran player must roll a die for each unit/group in his production schedule except for Turn 3 units. This includes those units listed as Pre-War Construction (PWC) in the Hydran fleet set up. If the die roll is equal to or greater than the turn number for a campaign game, the unit/group is received by the Hydran at his capital (this includes any Spring Y169 and Fall Y169 construction received). If the die roll is less than the turn number, the unit/group is considered to have been assigned to the Lyran front. The Fall Y168 production has already been added to the First fleet and does not have to rolled for. This die roll is done after all conversions and substitutions of newly constructed units. The Hydran player automatically receives the Campaign game Turn 3 production; then he must roll for the Campaign game Turn 4 (2-6) and Turn 5 (3-6) production before the scenario begins. The Scenario Turn 6 production die roll will be a 4-6 (Campaign Turn 4) and so on.
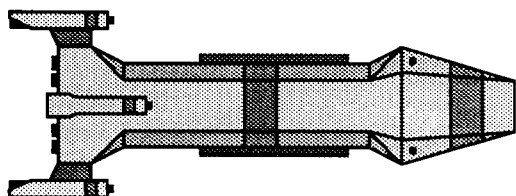
HYDRAN TUG *EBULLIENT*

(681.42) KLINGON: Spring turns: 1x C8, 2x D7, 9 x D5, 2x F5Q, 3x E4.

Fall turns: 1x D7C, 1x D7, 1x D6, 9x D5, 2x F5Q, 3x E4.

Mothball: 2x D6 and 2x F5 activated each turn.

The Klingon player receives the above production (and mothball activations) for each turn after the scenario begins (note that he receives no units on the first turn since the scenario begins with the Hydran half of the turn), but must roll one die for each unit or group received. On a die roll of 1–3, the unit is received at the capital. On a die roll of 4–6, the unit has been diverted to the Kzinti front. This die roll is done after all conversions and substitutions of newly constructed units.

NOTE: It is impossible for the Klingons to complete a B10 before the scenario is over. Do not roll for swarms. No SFG conversions (312.1) are available to this front.

(681.43) BOTH: All overproduction is presumed to have been sent to the other front (Lyran in the case of the Hydrans, Kzinti in the case of the Klingons). Additional production (e.g., the one mobile base allowed per turn) must be paid for separately.

(681.5) VICTORY CONDITIONS

HYDRAN DECISIVE: To achieve this level of victory, the Hydrans must, at the end of Turn 6, have destroyed at least two Klingon bases on the Hydran border (or one such base and any Klingon starbase) and one base on the Federation border, and must establish a valid Strategic Movement path from the Federation capital to the Hydran capital.

HYDRAN TACTICAL: To achieve this level, the Hydrans must satisfy one of the following groups of conditions:

★ Move at least five uncrippled ships into Federation territory. Crippled ships count as 1/2 of an uncrippled ship; fighter factors do not count.

★ Destroy the Klingon starbase at 1716.

★ Destroy Klingon units and bases with a total combat potential (not counting fighters) at least 33% more than the total Hydran losses (not counting fighters, scouts add their EW rating). Count FRDs as 10 points.

STALEMATE: Any result that does not satisfy one of the victory conditions listed above or below.

KLINGON TACTICAL: Avoid all of the Hydran victory conditions and satisfy one of the following groups of conditions:

★ Destroy any Hydran starbase.

★ Devastate any major planet in the Hydran capital hex.

★ Destroy Hydran units and bases with a total combat potential (not counting fighters, scouts add their EW rating) at least 33% more than the total Klingon losses (not counting fighters). Count FRDs as 10 points.

KLINGON DECISIVE: Avoid all of the Hydran victory conditions and destroy two Hydran starbases, four Hydran BATs, and devastate every planet in the Hydran capital hex.

NOTE: If the Hydran Capital is captured, the Hydrans automatically lose regardless of any other condition.

NOTE ON DF&E '93 RULES UPDATES

The DF&E '93 rulebook includes a note that the rules updates (or Commentaries) from CL# 13 were included in that product. As you can see, CL#13 has no such thing. What happened was that DF&E '93 went to press before the product known as "Best of Nexus" became CL#13. The "regular" Captain's Log that was to be #13 became #14. Hence, the updates in question are in CL#14.

SCENARIO 682:
THE SECOND FED-KZINTI WAR

(Y136-Y142) *by Alan Gopin, New Jersey*

This scenario depicts the Second Federation/Kzinti War which took place a quarter of a century before the General War. The Kzintis attacked the Federation after an incursion into the Neutral Zone by Federation traders of questionable morals. With anyone else this would have been a minor incident, but Kzintis tend to carry a grudge, particularly one of honor, and are almost impossible to stop once blood has been drawn.

The war ended with no significant change of territory when both sides began to feel pressure from their other enemies. The respect gained by both sides for each other during combat in this war would eventually lead to the treaty that saved the Hegemony during the General War.

(682.1) GENERAL SCENARIO RULES
(682.11) FIGHTERS: Neither the Federation nor the Kzintis had any fighters or carriers at the time of this war. No fighter factors are used on bases or PDUs.

(682.12) ECONOMICS: For your convenience, the beginning wartime economies of the two races are:

Race	Kzinti	Federation
Economy	84	155

(682.121) The Kzintis begin Turn 1 at a Wartime economy; the Federation is at Peacetime. The Federation will switch to a Wartime economy when it is attacked, but will require three turns to do so as follows:
Turn 1 Multiply Federation economic income by 0.50.
Turn 2 Multiply Federation economic income by 0.75.
Turn 3 Multiply Federation economic income by 1.00.
If the Kzintis do not attack on Turn 1, the Federation economy does not begin shifting to a Wartime economy until the turn that the Kzintis do attack. The actual turn that the Kzintis attack the Federation will be treated as Turn 1 for purposes of converting the Federation economy to Wartime.
(682.122) The Federation only gets production points for planets and complete provinces west of 30xx inclusive (this includes 27 provinces, 9 minor planets, 3 major planets, and the capital. The provinces east of 30xx and the off-map survey areas are supporting the other fleets.
(682.123) OFF-MAP AREAS: There is no off-map exploration, and there are no survey ships.

The Kzintis receive only 8 points from their off-map area. [This has been included in their economy listed in (689.12) above.]

(682.13) TUGS AND PODS
(682.131) Battle Pods cannot increase a tug's command rating above 9. There are no carrier pods.
(682.132) Lost pods can be replaced; new pods cannot be built.
(682.133) Repair pods are not available at the time of this war; no tug can perform mission E.

(682.14) BASES: All battle stations are base stations with a factor of 8 when undamaged and 4 when crippled. Uncrippled base stations have an EW factor of 2; crippled base stations have an EW factor of 1. Command Rating 8. These cannot be upgraded to SBs. Upgrading an MB to a BS costs 4 points and uses the MB to BATS procedure. Mobile bases cannot be built before Spring Y140 and require two turns to set up.

(682.15) SUPPLY: Supply range (411.1) is 4 hexes not 6. No more than one tug per race can be a supply point. No race can operate more than one convoy. No supply can be drawn from captured planets.

(682.16) DRONE BOMBARDMENT: Drone bombardment (309.0) can only be used in battle rounds involving enemy bases, FRDs, convoys, or planets (due to slow drone speeds).

(682.17) PIRATES: If pirates are used, the pirate player has one CR and two LRs at the start and receives 2 points of automatic income per turn (not 10).

(682.18) MAP AREA USED
Use the Western map (A) only. Units in this scenario are restricted to the Federation, the Kzinti Hegemony, and the Neutral Zone between them.

(682.2) TIME TABLES FOR THE SCENARIO
TURN 1, SPRING Y136
Historical: Kzintis attack Federation.
KZINTI Available: Home Fleet, Marquis' Fleet, and Baron's Fleet.
The Baron's Fleet can enter by Operational or Strategic Movement on Turn 1. The Duke's Fleet is activated when Federation forces enter a province where ships from that fleet are based. The Count's Fleet is activated when Federation forces enter a province where ships from that fleet are based.
FEDERATION Available: Home Fleet and Fourth Fleet.
The 3rd Fleet is activated when Kzinti forces enter a province where ships from that fleet are based. The 7th Fleet is activated when Kzinti forces enter a province where ships from that fleet are based.
NOTE: It is probably unnecessary to set up the Federation 3rd Fleet and 7th Fleet or the Kzinti Duke's Fleet and Count's Fleet as no one would deliberately activate more enemy forces.

TURN 2, FALL Y136: Historical: The War continued.

TURN 3, SPRING Y137: Same as Turn 2.

TURN 4, FALL Y137: Same as Turn 2.

TURN 5, SPRING Y138: Same as Turn 2.

TURN 6, FALL Y138: Same as Turn 2.

TURN 7, SPRING Y139: Same as Turn 2.

TURN 8, FALL Y139: Same as Turn 2.

TURN 9, SPRING Y140: Same as Turn 2.

TURN 10, FALL Y140: Same as Turn 2.

TURN 11, SPRING Y141: Same as Turn 2.

TURN 12, FALL Y141: Same as Turn 2.

TURN 13, SPRING Y142: Same as Turn 2.

TURN 14, FALL Y142: The War Ends.

(682.3) FLEET DEPLOYMENTS

(682.31) FEDERATION: Home Fleet (Deploy in 2908): 1x CC, 3x CA, 3x CL, 3x DD, 6x FF, 1x SC, 3x Tug, 1x FRD, 1x RESV.

4th Fleet (Deploy in 2201, 2103, 2004, 2204, and/or 2006): 1x CC, 3x CA, 3x DD, 3x FF, 1x SC, 1x Tug, 1x RESV.

3rd Fleet (Deploy 3 or 4 units per base from 2008 to 2615, plus SB 2211): 1x CC, 3x CA, 3x CL, 4x DD, 8x FF, 1x SC, 1x Tug, 1x FRD, 1x RESV.

7th Fleet (Deploy in 2816 or 2915): 1x CC, 1x CA, 2x DD, 2x FF, 1x SC.
(Deploy in 3016): 2x CA, 1x DD, 2xFF.

PODS: 3x Battle Pods.

(682.32) KZINTIS: Home Fleet (Deploy in 1401): 1x CC, 3x CS, 3x CL, 6x FF, 1x TGT, 1x DF, 1x SC, 1x FRD, 1x RESV.

Baron's Fleet (Deploy in the Barony): 1x CC, 3x CS, 2x CL, 2x FF, 1x TGT, 1x DF, 1x FRD.

Marquis' Fleet (Deploy in 1902, 1803, and/or 1805): 1x CC, 3x CS, 3x CL, 3x FF, 1x TGT, 1x DF, 1x SC, 1x RESV.

Duke's Fleet (Deploy in 1605): 1x CC, 1x CL, 1x FF.
(Deploy in 1405): 1x CS, 1x CL, 1x FF.
(Deploy in 1205): 1x CS, 1x CL, 1x FF, 1x FRD.
(Deploy in 1004): 1x CS, 1x FF, 1x DF, 1x TGT, 1x SC.

Count's Fleet (Deploy in 0803): 1x CS 1x CL, 1x FF.
(Deploy in 0703): 1x CC, 1x CL, 1x FF.
(Deploy in 0701): 1x CS, 1x CL, 1x FF.
(Deploy in 0902): 1x CS, 1x DF, 1x TGT, 1x SC.

PODS: 2x sets of Battle Pods.

NOTE: The Kzinti CS is represented on the board by a CM counter and uses the CM combat values. However, it has the command rating of a heavy cruiser (8) and costs 8 EP to build. All other units are represented by the normal counters.

(682.33) GENERAL

Repair ships are used as per the F&E rules for Y168.

Set up in this order: Federation, then Kzintis. The Kzintis move first.

(682.4) PRODUCTION SCHEDULES

(682.41) KZINTIS: The Kzinti construction rate is 1x CS, 3x CL, 3x FF per turn.

The CS may be replaced by a CC on the Fall turn of even numbered years.

One FF may be replaced by a DF on Fall turns.

Can substitute TGT for CS or CL once during the scenario.

The Kzintis are limited to building the following units: CC, CS, CL, FF, DF, SC, TGT, Battle Pod (only to replace battle pods lost in combat), FRD, MB (Y140+), PDUs, and convoys.

(682.42) FEDERATION: The Federation construction rate is 1x CA, 3x DD, 3x FF per turn.

The CA may be replaced by a CC on the Fall turn of even numbered years.

Can substitute TG for CA or DD once during scenario.

The Federation is limited to building the following units: CC, CA, CL, DD, SC, FF, Tug, Battle Pod (only to replace battle pods lost in combat), FRD, MB (Y140+), PDUs, and convoys.

(682.43) CONVERSIONS: The following are allowed:

Federation DD to SC .... 5 EPs
Federation CA to CC .... 2 EPs
Kzinti CS to CC .... 3 EPs
Kzinti FF to SF .... 2 EPs
MB to BS .... 4 EPs

(682.5) VICTORY CONDITIONS

(682.51) SCORING: Victory points are scored at the end of the game by each side as follows:

Per enemy base station destroyed: +2 VP
Per enemy starbase destroyed: +8VP
Per five points (of production cost) of enemy ships destroyed: +1VP
Per enemy province captured: +4VP
Per enemy planet not in capital devastated: +2VP
Per enemy Minor Planet captured: +6VP
Per enemy Major Planet captured: +10VP

Bonus For Threatening Enemy Capital:

The Kzintis could supply a ship in the Federation capital hex (one does not have to be there): +20.

The Federation could supply a ship in the Kzinti capital hex (one does not have to be there): +10

These bonuses ignore the effect of defending forces that are actually in the capital hex.

(682.52) LEVELS OF VICTORY: Subtract the Federation point total from the Kzinti point total to get the level of victory:

+30 or more .... Kzinti Strategic
+20 to +29 .... Kzinti Moderate
+10 to +19 .... Kzinti Tactical
+9 to -9 .... Draw
-10 to -19 .... Federation Tactical
-20 to -29 .... Federation Moderate
-30 or less .... Federation Strategic

(682.53) SUDDEN DEATH VICTORY: If at any time, either side devastates any planet in the opposing capital hex, that side immediately wins a Decisive Victory.

(682.7) OPTIONAL RULE FOR SECOND FED-KZINTI WAR: The scenario begins with the first half (Kzinti Player Turn) of Turn 1 (Spring Y136). The scenario ends after the last step of Turn 14 (Fall Y142). Optionally, have each player roll a die at the end of each turn starting with Turn 11 (Spring Y141). If both players roll the same number, the game ends immediately.

STRATEGY: This scenario requires tactics that are different from the General War. There are no fighters for attrition, so you will have to use frigates for that role. Also, the primary value of base stations in combat is their command rating rather than their intrinsic combat value. Strategically, this scenario bears a lot of resemblance to the Pacific Theater of World War II on Earth in the 20th century. The Kzintis start with the initiative, but the Federation has a massive economic base.

The Kzintis have to hit the Federation hard on the first turn. The four Federation bases along the border must be destroyed, and the minor planet in 2106 must be captured and held. This will prevent the Federation from attacking the Kzinti capital in supply. In the scenario, the Kzintis must press home the attack as long and as hard as possible. You must gain enough territory and victory points to weather the inevitable Federation counterattack.

The Federation must conduct a fighting withdrawal until they can marshal enough forces to stop the Kzinti attack and push them back.

Victory will be determined, in effect, by how far the Kzintis get, how far the Federation pushes them back, and what it costs each side to do so. Some believe the only Kzinti hope is to go for Sudden Death.

PLAYTESTER'S NOTES: This is an excellent short two-player scenario without many of the complications of the General War.

KLINGON D7Z PHASER BATTLECRUISER

SHADED BOXES ARE THE B-REFIT.

PH-2'S MARKED "K" ARE PH-1 ON THE K-REFIT.

SPECIAL FIRING ARCS: (D2.32) AND (D2.33).

SHIP DATA TABLE

TYPE	=	D7Z
POINT VALUE	=	121
BREAKDOWN	=	5-6
SHIELD COST	=	1+1
LIFE SUPPORT	=	1
SIZE CLASS	=	3
REFERENCE	=	R3.941
B REFIT	=	+6
K REFIT	=	+3
Y175 REFIT	=	+4

TURN MODE

TURN MODE	SPEED
B	2-5
1	6-10
2	11-15
3	16-21
4	22-28
5	29+
6	

HET
BD

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	1	1	0
3	4	4	4	0	0	0
4	4	4	3	0	0	0
5	4	4	2	0	0	0
6	3	3	1	0	0	0

MOVEMENT COST = 1
HET COST = 5
EM COST = 6

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

TRANSPORTER BOMBS

D D D D

ANTI-DRONES
1

DRONE RACKS
1
2

CREW UNITS
*
10
20
30
40

BOARDING PARTIES
10

PROBES
5

SHIP HAD TYPE-A DRONE RACKS (ONE RELOAD) UNTIL THE Y175 REFIT, WHICH CONVERTED THESE TO TYPE-B DRONE RACKS (2 RELOADS) CAN FIRE ONE DRONE EACH TURN. B-REFIT CAN FIRE ONE DRONE FROM EACH RACK EACH TURN.

ADD HAS 6 ROUNDS PRIOR TO Y175

TYPE I OFFENSIVE PHASER TABLE

DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	3	1	1	0
3	7	5	5	4	4	4	3	2	1	0	0
4	6	5	4	4	4	3	2	1	0	0	0
5	5	4	4	4	3	3	2	1	0	0	0
6	4	4	3	3	3	2	1	0	0	0	0

TYPE II PHASER TABLE

DIE ROLL	RANGE 0	1	2	3	4-8	9-15	16-30	31-50
1	6	5	5	4	3	2	1	1
2	5	5	4	4	2	1	1	0
3	5	5	4	3	1	1	0	0
4	5	4	4	3	1	0	0	0
5	5	4	3	3	0	0	0	0
6	5	4	3	3	0	0	0	0

ANTI-DRONE TABLE

RANGE	0	1	2	3	4+
HIT#	-	1-2	1-3	1-4	-

FA = LF + RF
FX = L + LF + RF + R

LF RF
L R
LR RR

KLINGON D7Y DRONE BATTLECRUISER

SHIP DATA TABLE

TYPE	= D7Y
POINT VALUE	= 148
BREAKDOWN	= 5-6
SHIELD COST	= 1+1
LIFE SUPPORT	= 1
SIZE CLASS	= 3
REFERENCE	= R3.942
UIM REFIT	= +5

TURN MODE

TURN MODE	SPEED
B	2-5
1	6-10
2	11-15
3	16-21
4	22-28
5	29+

HET BD 6

DISRUPTOR TABLE

RANGE	0	1	2	3-4	5-8	9-15	16-22	23-30
HIT (STD)	NA	NA	1-5	1-4	1-4	1-4	1-3	1-2
HIT (UIM)	NA	NA	1-5	1-4	1-4	1-4	1-4	1-2
HIT (DERFACS)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-3
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	1-4	1-5	NA	NA
HIT (OL/UIM)	1-6	1-5	1-5	1-5	1-5	1-5	NA	NA
DAMAGE,STD	0	5	4	4	3	3	2	2
DAMAGE,OVLD	10	10	8	8	6			

TYPE I OFFENSIVE PHASER TABLE

DIE ROLL	0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	4	3	2	1	0
3	7	6	5	4	4	4	3	2	1	0	0
4	5	5	4	4	3	3	3	1	0	0	0
5	4	4	4	4	3	3	2	0	0	0	0
6	4	4	3	3	2	2	1	0	0	0	0

TYPE II PHASER TABLE

DIE ROLL	0	1	2	3	4-9	16-15	16-31	50
1	6	5	4	3	2	1	1	0
2	6	5	4	4	2	1	0	0
3	5	4	4	3	1	0	0	0
4	5	4	4	3	1	0	0	0
5	4	4	3	2	0	0	0	0
6	4	3	3	2	0	0	0	0

TYPE III DEFENSE PHASER

DIE ROLL	0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	1	0	0
5	4	3	3	0	0	0
6	4	3	1	0	0	0

ANTI-DRONE TABLE

RANGE	0	1	2	3	4+	-
HIT#	-	1-2	1-3	1-4	-	

DRONE RACKS

SHIP ALWAYS HAD TYPE-B DRONE RACKS WITH TWO RELOADS, AND COULD LAUNCH ONE DRONE PER RACK PER TURN.

SPECIAL FIRING ARCS: (D2.32) AND (D2.33).

FA = LF + RF
FX = L + LF + RF + R

MOVEMENT COST = 1
HET COST = 5
EM COST = 6

ADMINISTRATIVE SHUTTLES — IDENT / HIT POINTS / NOTES

UIM   DERFACS   H&R

PROBES   5

CREW UNITS

BOARDING PARTIES   10

TRANSPORTER BOMBS   D D D D

KLINGON D6F ANTI-FIGHTER CRUISER

SHIELD #1
SHIELD #2
SHIELD #3
SHIELD #4
SHIELD #5
SHIELD #6

DAM CON | 4 | 4 | 2 | 2 | 2 | 0

EX DAM

PH-2-FX | 1 | 1 | 2 | 3
TRAC BRIDGE TRAC
EMER SCTY
TRAN
BTTY
LAB
F HULL
EMER IMP

DRONE | 4
DISR | C | D
R WARP
FA
PH-2 | 6 R | 7 RR
AUX
SCTY TRAN
PRB
AFT HULL
IMP
APR
TRAC SHTTL
BTTY
TRAN
IMP
DRONE TRAC | 1 | 2

DRONE | 3
PH-2 | 4 | 5
L LR
DISR | A | B
L WARP
FA

SPECIAL FIRING ARCS: (D2.33)

CNTR

SENSOR | 6 | 6 | 5 | 3 | 1 | 0

CANNER | 0 | 0 | 1 | 3 | 5 | 9

SHIP DATA TABLE

TYPE	= D6F
POINT VALUE	= 117
BREAKDOWN	= 5-6
SHIELD COST	= 1+1
LIFE SUPPORT	= 1
SIZE CLASS	= 3
REFERENCE	= R3.943

TURN MODE / SPEED

TURN MODE	SPEED
B	1	2-5
	2	6-10
	3	11-15
HET	4	16-21
	5	22-28
BD	6	29+
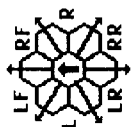
DRONE RACKS

						A		E
1						A		E
2								
3								
4								

SHIP HAD TYPE-A (ONE RELOAD) AND TYPE-E (TWO RELOADS) DRONE RACKS. CAN LAUNCH ONE DRONE EACH TURN FROM THE TYPE-A DRONE RACKS, THE TYPE-E DRONE RACKS ARE NOT RESTRICTED IN THEIR RATE OF LAUNCH.

MOVEMENT COST = 1
HET COST = 5
EM COST = 6

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

TRANSPORTER BOMBS | D | D | D

PROBES | 5

CREW UNITS
| * |
10 / 20 / 30 / 40

BOARDING PARTIES | 10

FA = L + LF + RF + R
FX = L + LF + RF + R

TYPE II PHASER TABLE

DIE ROLL	RANGE 0	1	2	3	4-8	9-15	16-30	31-50
1	6	5	5	4	3	2	1	1
2	6	5	5	4	2	1	1	0
3	5	5	4	4	1	1	0	0
4	5	4	4	3	1	0	0	0
5	4	4	3	3	0	0	0	0
6	3	3	3	3	0	0	0	0

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	0
2	4	4	4	2	1	0
3	4	4	3	1	0	0
4	4	4	2	0	0	0
5	3	3	2	0	0	0
6	3	3	1	0	0	0

DISRUPTOR TABLE

RANGE	0	1	2	3-4	5-8	9-15	16-22
HIT (STD)	NA	1-5	1-5	1-4	1-4	1-4	1-3
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	1-4	NA	NA
DAMAGE, STD	0	5	4	4	3	3	2
DAMAGE, OVLD	10	10	8	8	6	0	0

KLINGON D6Y SEMI-CARRIER

DAMCON: 4 4 2 2 2 0
EX DAM

SHIELD #1
SHIELD #2
SHIELD #3
SHIELD #4
SHIELD #5
SHIELD #6

FX
PH-2K 1 2 3
TRAC BRIDGE TRAC
EMER SCTY
TRAN
BTTY
LAB
F HULL
EMER IMP

AUX
ADD SCTY
BTTY
TRAN
AFT HULL
PRB
IMP TRAC APR IMP
SHUTTLE
PH-2 6 R / 7 RR
FA
DISR C D
R WARP
PH-2 4 5
L LR
FA
DISR A B
L WARP

SPECIAL FIRING ARCS: (D2.33)

☐ SHADED BOXES ARE THE B-REFIT.
PH-2'S MARKED "K" ARE PH-1 ON THE K-REFIT.

SENSOR: 6 6 5 3 1 0
SCANNER: 0 0 1 3 5 9
CNTR

SHIP DATA TABLE

TYPE	= D6Y
POINT VALUE	= 113
BREAKDOWN	= 5-6
SHIELD COST	= 1+1
LIFE SUPPORT	= 1
SIZE CLASS	= 3
REFERENCE	= R3.944
B REFIT	= +9
K REFIT	= +3
Y175 REFIT	= +2
UIM REFIT	= +5

TURN MODE

TURN MODE		SPEED
B	1	2-5
	2	6-10
HET	3	11-15
	4	16-21
BD	5	22-28
	6	29+

CREW UNITS
*

BOARDING PARTIES
10 20 30 40 — 10

DECK CREWS
5

PROBES
5

UIM ☐
DERFACS ☐ | H&R ☐

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

TRANSPORTER BOMBS
D D D D

ANTI-DRONES
1   ADD HAS 6 ROUNDS PRIOR TO Y175.

DISRUPTOR TABLE

RANGE	0	1	2	3-4	5-8	9-15	16-22	B REFIT 23-30
HIT (STD)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-2
HIT (UIM)	NA	1-5	1-5	1-4	1-4	1-4	1-4	1-2
HIT (OERFACS)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-3
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	NA	NA	NA	NA
HIT (OL/UIM)	1-6	1-5	1-5	1-5	NA	NA	NA	NA
DAMAGE, STD	0	5	5	4	4	4	3	2
DAMAGE, OULD	10	10	8	8	6	6	2	0

ANTI-DRONE TABLE

RANGE	0	1	2	3	4+
HIT*	-	1-2	1-3	1-4	-

TYPE I OFFENSIVE PHASER TABLE

DIE ROLL	0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	8	6	5	5	4	3	3	2	1	0
3	6	6	5	5	4	4	3	2	1	0	0
4	6	5	5	4	4	3	2	1	1	0	0
5	5	4	4	4	3	3	1	1	0	0	0
6	4	4	3	3	3	1	1	0	0	0	0

TYPE II PHASER TABLE

DIE ROLL	0	1	2	3	4-8	9-15	16-30	31-50
1	6	5	5	4	3	2	1	1
2	5	5	4	4	2	2	1	0
3	5	4	4	3	2	1	0	0
4	4	4	3	3	1	1	0	0
5	4	3	3	2	1	0	0	0
6	3	3	2	1	0	0	0	0

TYPE III DEFENSE PHASER

DIE ROLL	0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	3	1	0	0
4	4	4	2	1	0	0
5	3	3	2	1	0	0
6	3	3	1	0	0	0

Z-2 FIGHTERS
1xPh-3-FA
DFR = 2
CRIPPLE = 6
SPEED = 8

MOVEMENT COST = 1
HET COST = 5
EM COST = 6

FA = LF + RF
FX = L + LF + RF + R

LF RF
L   R
LR RR

THIS SHIP IS NOT A "TRUE CARRIER."

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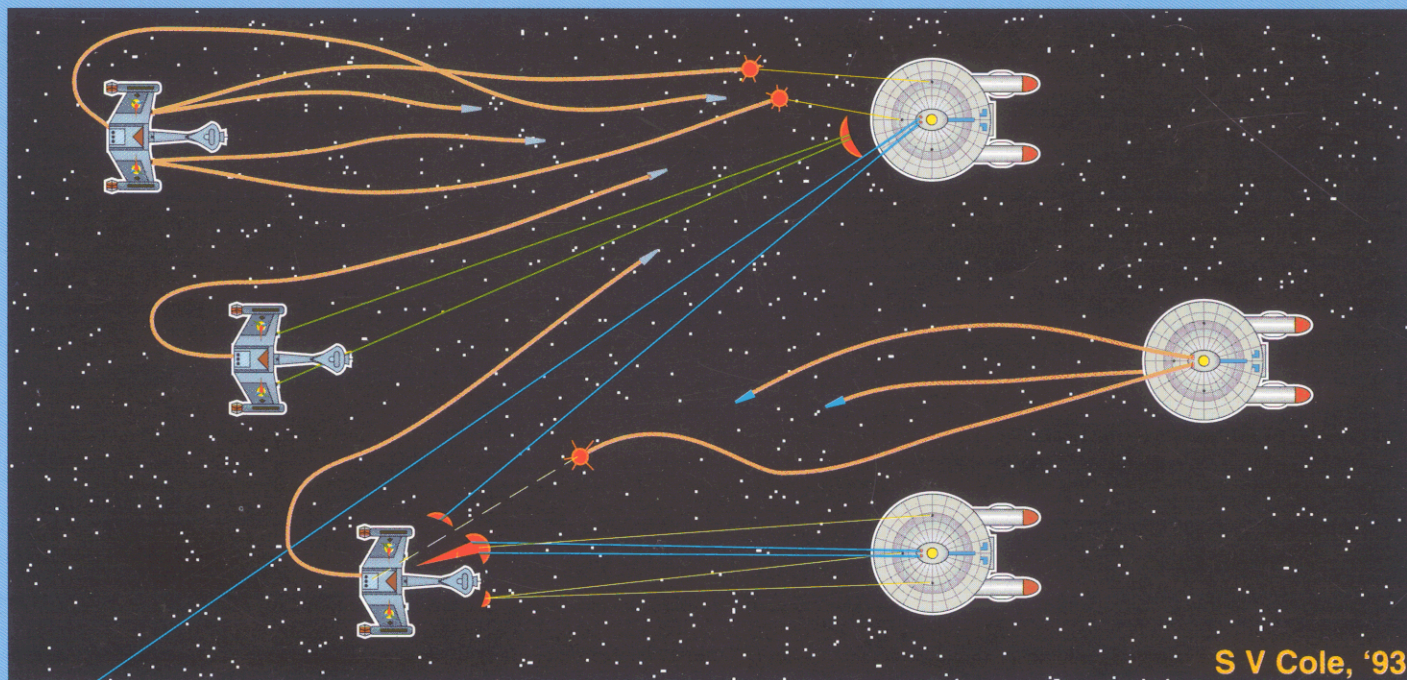
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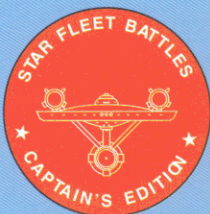
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