ORIGIN'S OFFICIAL GUIDE TO

WING COMMANDER III

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WING COMMANDER III

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HOW TO USE THIS BOOK

This book was designed with you, the player, in mind. We've dug into code, cornered pro-grammers, schmoozed Hollywood gurus by phone, and pounded relentlessly on the game to give you the best information possible. So, strap in and nuke a few furballs. Then, settle down for an intense look into the guts of the game and tour behind the scenes.

With all this at your fingertips, we hope you find your trips to Kilrah — and to Hollywood — well worth the ride.

SPOILERS

Sometimes we tell you more than you might want to know. When we're describing something that gives away an important plot development in **Strategy and Tactics** (the first major section of this book), we'll mark it with "stripes" across the text, just like this paragraph is "striped." Read such material at your own risk.

Of course, once we get into the mission-by-mission descriptions, we'll be telling you every-thing in detail. We haven't marked any of the **Mission Analyses** with spoiler stripes — we assume you know what you're getting into when you start reading that section.

- For a quick look at how *Wing Commander III* differs from its predecessors and spin-off games, read **What's New** on p. 10.

- **Care and Feeding of Wingmen**, p. 11, describes the pros and cons of flying with each of your seven wingmen. You'll find statistics and flying characteristics to help you choose the best man — or woman — for each type of mission.

- **General Morale Information**, p. 16, describes how character and ship morale work and how you can affect morale during the game. By learning how conversations affect your comrades, you'll always have just the right words for your friends aboard the *Victory*.

- Similarly, **General Conversation Information** on p. 18 identifies conversations that affect morale. Both "positive" and "negative" responses are listed here. You'll also find in-flight lines for each of your wingmen, which can provide helpful morale and damage informa-tion during combat.

- A pilot is only as good as his hardware, and you can increase your combat skills by read-ing **Confederation Ordnance**, p. 29. It gives you the lowdown on ship types, ordnance and useful power outlays and also provides general information on how to use each to your advantage.

- The only good enemies are dead ones, or so our playtesters say. Get into a Kilrathi state of mind by reading **Kilrathi Ordnance** on p. 38. You'll learn about your foes, their ships and their preferred tactics. You'll also find inside info on taunting, exotic fighters, and how skill levels affect gameplay.

- **General Tips**, p. 52, is a collection of useful hints straight from our playtesters and designers. Look to this section for global tips on everything from power allocation to evading missiles to how the damage system works.

- In **Mission Analyses**, p. 66, we explain how the winning and losing track mission paths work. Then, we provide a point-by-point summary of each assignment in **Mission Specifics**, p. 68. You can't go wrong with our conversation, loadout and ship tips. And when you finally hit deep space, you'll know who's going to attack you, when and where.

  Note that the 10 simulator training missions are also described, and briefly analyzed, pp. 169-173. These missions are designed to provide practice in the types of situations you'll most often encounter.

Take a look from a different perspective in **Making** **Wing Commander III**, *beginning on p. 176. This comprehensive behind-the-scenes section covers everything from the birth of* Wing Commander *to shooting the last scene and preparing to market this latest addition to the series. Each chapter includes photos and interviews with the people that made the game happen.*

- **History,** on p. 177, goes back in time to 1983, when Chris Roberts first entered the world of computer gaming, then progresses through each product in the series.

- By the time you finish reading **Pre-Production** (p. 204), **Production** (p. 218) and **Post-Production Editing** (p. 236), you'll be ready to create your *own* film. Learn how the game design, code, script, storyboards, pyrotechnics and costume designs became reality.

- The production didn't stop in Hollywood. Enter yet another dimension of the game in **Translations** (p. 239) and **Quality Assurance** (p. 242) to learn how ORIGIN's employees hammered the game into perfection.

- Finally, read **Going to Market**, p. 244, an account of how we marketed the game that defined the term *interactive movie.* Learn from the pros — our writers, product managers and graphic designers.

- For a change of pace, try out *Behind the Scenes,* a multi-media CD tour that guides you through the making of *Wing Commander III.* You'll find concept sketches, interviews with the stars and key developers, bloopers, the entire script and more.

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STRATEGY AND TACTICS

WHAT'S NEW

In addition to simply being the most intelligent and sophisticated combat simulator in the *Wing Commander* series, *Wing Commander III* also has several more subtle differences from earlier *Wing Commander* games.

The most basic differences are probably the slower afterburner acceleration and the lack of an afterburner slide in many fighters. If you're an experienced pilot who's used to maneuvering with the afterburner slide, you may want to stick with the *Arrow* as much as possible until the *Excalibur* becomes available. The *Arrow* and the *Excalibur* are the only two fighters available with afterburner slides. The *Excalibur's* "super slide" is particularly marked.

In *Wing Commander Armada* all the fighters, on both sides, had equal yaw, pitch and roll values. In *Wing Commander III*, these values differ widely. Knowing the *exact* maneuvering tolerances of your fighter and the enemy fighters is an important mark of an ace pilot in this game.

Also in *Armada*, the aspect ratio of the enemy ships was "fudged" a bit for collisions, so that you had to run into the enemy's center of mass before you or he would take collision damage. If you just "brushed his wing," there'd be no collision. In *Wing III*, however, aspect ratios are at 100%, so if you brush any part of the enemy ship with any part of your ship, a collision will result.

Finally, in *Armada* it was possible to shoot down incoming missiles. This is not possible in *Wing III*, except for the skipper missile and other capital missiles, which can be targeted and shot, and the torpedo, which can and will be shot down by enemy turrets if you release it too early.
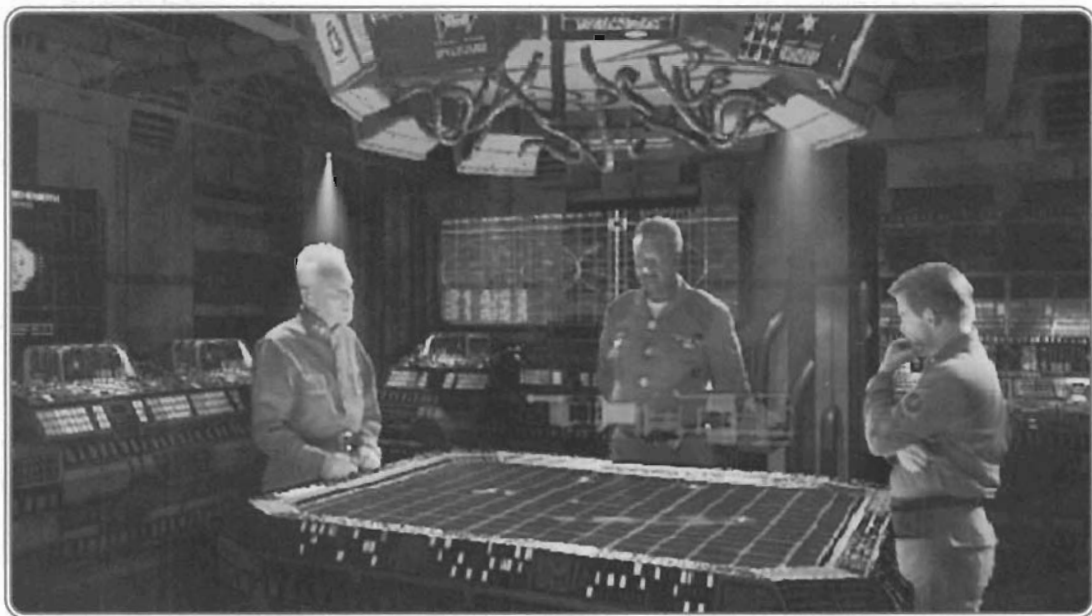
CARE AND FEEDING OF WINGMEN

In Wing *Commander III*, your wingmen are all smart, efficient and just generally damn handy to have around. In many ways, they're the strongest weapon in your arsenal. Like any other weapon, however, you have to learn to use them correctly.

If you're going to release your wingman, release him as soon as possible to give him room to maneuver. If you wait until you're close in, there's a chance you might cross each other's line of fire and damage each other. Hot keys are wonderful things under any circumstances, but one of your very favorite hot keys should be Alt B, the command to order your wingman to "break and attack." An alternate way to set your wingman loose fast is to have his communications channel open before you go into autopilot, so if there are enemies waiting for you when you emerge, you can go directly to the "break and attack" button.

If you want more control over which target your wingman engages, target an enemy fighter from as far out as possible, order your wingman to "attack my target," then, as soon as he acknowledges, switch your attack to a new fighter. The wingman will stay on the fighter you just sent him after. Since this command sequence is a rather complex operation, the "attack my target" hot key (Alt A) is also very important. Note that some of the more hot-headed wingmen will ignore "attack my target" orders.

Once you order him to break, even if you're both on full afterburners your wingman will close with the enemy faster than you can. One *extremely* useful tactic is to send your wingman in, wait until an enemy gets on his tail, then move in and get on the enemy's tail. This may sound heartless, but actually it's a win-win situation. Your wingman is drawing fire away from you, and you're protecting his vulnerable points. Consistently used, this tactic will actually materially enhance wingman survival.

Another good way to use wingmen is to send them after a cap ship while you hold off its escort fighters. A wingman will doggedly pound away at a cap ship until it pops, and he'll often get the job done faster than you can.

The good news is that nothing you do to your wingman in flight will affect morale back on the carrier (see **General Morale Information**, p. 16), though morale might affect how likely your wingman is to obey your orders. You can send him in alone, fire at him, do any nasty thing you want and it won't affect anything back on the carrier, or how any of your wingmen fly in the future. The only exception is personally destroying your wingman's ship. Doing that will get you court-martialed (thus ending the game).

The bad news is that wingmen are a finite resource. Once they're gone, they're gone. However, just because a wingman gets shot down does not necessarily mean he's out of the game. Each wingman on board the *Victory* has a certain point in the game when he or she becomes at risk of being killed. Before that point, any time that character gets shot down, he'll be rescued and returned to the carrier. The points where individual wingmen become at risk are noted in their profiles, below. Knowing whether your wingman is at risk or not for a given mission will allow you to practice good wingman conservation.

CHARACTER STATS

Each character, both friend and foe, in *Wing Commander III* is defined by seven distinct stats (actually, *Wing Commander* has eight character stats, but the eighth, "mortality" isn't used in this game). Every character has a score of 0 to 2 in each stat. The stats, and the meanings of their different levels, are outlined below.

AGGRESSIVENESS

This measures how eager the character is to get into a fight. Aggressiveness is different from Courage, which measures how willing the character is to stay in a fight that's going against him. A 0 indicates a cautious attitude, a 1 is normal, and a 2 is just a little crazy. Note that the more aggressive a Kilrathi is, the less likely he is to disengage from an attack he's already begun in response to your taunts.

CAREFULNESS

This stat measures how well the character conserves his missiles and gun energy. A 2 means he fires conservatively, a 1 means he fires normally, and 0 means he fires wastefully.

COURAGE

Courage measures the character's willingness to stay in a fight that's turning against him. A rating of 0 is cowardly, a 1 is normal, and a 2 means the character will always go down with the ship rather than abandon a fight.

FLYING SKILL

This one is just what it sounds like, how skillfully the character flies. A 0 character needs to go back to the academy for a refresher, a 1 is an average pilot, and a 2 is a real stunt flier.

GUNNERY SKILL

This is a measure of the character's ability to hit a target in combat. 0 is poor, 1 is average and 2 is a sharp-shooter.

LOYALTY

This important stat tells how likely the character is to obey your in-flight orders. Somebody with 0 Loyalty never obeys, a 1 obeys sometimes, and a 2 always does as he's told.

VERBOSITY

This is just a measure of how likely the character is to send you a random taunt or message. Verbosity is not particularly relevant, tactically. A 0 means the character never talks (except to acknowledge your communications), a one means he occasionally talks, and a 2 marks a real big mouth.

Wingmen with a high Verbosity will also fly a bit more extravagantly and unpredictably than those with a low score. They're more prone to flips, rolls and other fancy maneuvers. This applies *only* to wingmen — Verbosity does not effect the enemy in this way.

SIDEKICKS

You'll probably rapidly discover a personal favorite wingman who best matches your individual style and best balances your weaknesses. Remember, though, that as the commander you've got a responsibility not to appear biased. If you fly with your favorite and only your favorite, your usual wingman will start to feel put upon and the other members of the squadron will start to feel slighted. Bottom line, find time to fly with everybody in your command, or morale will start to suffer.

After each wingman's description his or her stats are given. The first stat given is the one that applies when his morale is high. A stat in parentheses is the stat that regulates the character's behavior under low-morale conditions (morale of 5 or less, see p. 17). If just one number is given, low morale doesn't effect that stat.

During the final, do-or-die assault on Kilrah, some of the surviving wingmen might adjust their attitudes because of the seriousness of the situation. A stat in brackets is a stat that applies during the final missions, when different from normal high-morale stats.

COBRA

Cobra lives to kill Kilrathi. Her flying style is aggressive and unsubtle. She'll follow your orders as long as they keep her in the heat of the battle, but she might balk if you order her to pull back or ease off in any way. Low morale makes her fight crazier and less carefully.

Cobra is murdered by Hobbes during the rescue mission to Alcor. Before that she's never "at risk."

Aggressiveness......1 (2)	Flying 2	Loyalty 1 (0)
Carefulness............1 (0)	Gunnery 2	Verbosity 1 (2)
Courage 2		

FLASH

Flash only has one problem as a pilot; he knows how good he is. He doesn't particularly want your job, but he has no doubt he could do it, probably better than you. If you're willing to give him his head, he makes a top-notch wingman. He's too egotistical to be affected much by ship morale.

Flash becomes "at risk" following the first mission in the Torgo System.

Aggressiveness......1 (2)	Flying 2	Loyalty 1 (0)
Carefulness............1 (0)	Gunnery 2	Verbosity 1 (2)
Courage 2		

FLINT

Flint is eager to prove herself to you. She's a skilled, careful fighter who'll follow your orders explicitly. If her morale suffers, Flint becomes less sure of herself, more hesitant in battle and more insubordinate.

Flint doesn't become at risk until the final series of missions, the assault on Kilrah.

Aggressiveness......1 (0)	Flying 2	Loyalty 2 (1)
Carefulness............1	Gunnery 2	Verbosity 1
Courage 1 (0)		

HOBBES

When Blair calls Hobbes "the best wingman I've ever flown with," he's not just displaying his enlightened racial consciousness. Hobbes is completely obedient, completely efficient. If you want to try some tricky strategy in an extremely tough situation, Hobbes is the one you want flying with you. If you issue the command, he'll carry it out better than anyone else. Hobbes is never affected by morale.

Hobbes is never at risk until his treachery is revealed and he escapes the Victory.

After Hobbes escapes, you'll have two chances to take him out in combat. One of your most significant decisions in the game is whether to go after Hobbes immediately after Cobra's death. If you chase after Hobbes right away, Vaquero is killed while you're out, and you get a major ass-chewing from the Captain. On the other hand, morale on the ship actually *rises* if you avenge Cobra right away, plus Hobbes won't reappear as Prince Thrakhath's wingman in the final battle. Your call.

Aggressiveness......1	Flying 2	Loyalty 2
Carefulness............2	Gunnery 2	Verbosity 1
Courage 2		

MANIAC

Maniac just doesn't give a damn about you or your stupid orders. He doesn't care about your strategy or your feelings. Once he's released he doesn't want to hear your voice until after the last Kilrathi is blasted. Maniac is also, however, very, very good at killing Kilrathi. Some pilots prefer to fly with Maniac in much the same way that some infantrymen prefer to pitch a grenade into the bunker before they go in themselves. If you want an aggressive, danger-ous wingman and don't plan on giving any extra orders anyway, Maniac is a good choice. Just watch out when you're flying in his immediate vicinity— Maniac makes a lot of wild and unexpected moves, and as far as he's concerned it's *your* job to stay out of *his* sights. Maniac isn't affected by morale; he holds you in contempt regardless of how the rest of the ship is feeling.

Maniac becomes "at risk" following the first mission in the Torgo System.

Aggressiveness......2	Flying 2	Loyalty ....0 [1]
Carefulness............0	Gunnery 2	Verbosity 2
Courage 0		

VAGABOND

Despite his protests to the contrary, Vagabond loves to fly and loves to fight. He has a high-energy, creative flying style. Sometimes, in combat, his excitable nature might get the best of him and he'll blow off one of your orders, at least the first time you send it. If morale is low, Vagabond becomes even more insubordinate and his flying becomes more wild and erratic.

Vagabond becomes at risk when the Victory enters the Hyperion system.

Aggressiveness......1 (2)	*Flying* 2	*Loyalty* .... .1 (0) [2]
Carefulness...........1 (0)	*Gunnery* 2	*Verbosity* 0 (1)
Courage 2 (0)		

VAQUERO

Vaquero is a competent, no-nonsense pilot whose only goal is the get the mission done and get back home in one piece. He can be counted on to follow your orders. If morale suffers he becomes more timid and erratic in combat.

If you go after Hobbes when he murders Cobra, Vaquero will be dead when you return. Even if you don't go after Hobbes, Vaquero is at risk for the rest of the game.

Aggressiveness......1 (0)	*Flying* 2	*Loyalty* 2 (1)
Carefulness...........1 (0)	*Gunnery* 2	*Verbosity* 2
Courage 1 (0)		

THE FINAL SACRIFICE

The final sequence of missions, the attack on Kilrah, is set so that you *will* lose *at least* three wingmen as the missions progress. So if (for example) you want to settle down and live happily ever after with Flint after the game is over, do not take her as a wingman during this sequence. On the other hand, if you know who your best surviving wingman is, and you don't mind sacrificing him in a good cause, make sure you pick him for this mission, because that's the last chance you're going to get to fly with him.

GENERAL MORALE INFORMATION

There's nothing like making new friends, or new enemies. And if you're in the position of a Commander, there's nothing like trying to keep your crew's spirits up. In *Wing Commander III*, you can do all of these things by what you say and what you do. You affect the morale of each character and also the overall morale of the ship.

Morale values change whenever you choose responses during conversations, or when you perform certain actions during combat (such as chasing after Flint). It isn't always apparent which conversations change ship morale or individual morale; however, the chart on p. 20-21 lists the effect for each interactive conversation that changes morale.

When the game starts, both character morale and ship morale have a base value of 8 points. In most cases, an answer you choose during a conversation improves or hurts the ship or character morale by 1. One exception occurs when you choose between Flint and Rachel; another takes place when you must track down a Skipper missile in the fourth mission. Winning or losing missions, however, does *not* affect morale.

MORALE RANGE

On the carrier, morale is classified as high, average or low, as described below. Low morale situations occur when the morale falls below 6, while high morale situations occur when morale rises above 10. The values in between are considered average. Generally, average morale doesn't affect conversations. If a character's morale is in the high or low range, however, your conversations with them may be somewhat different.

Note: During spaceflight, morale is divided into only two categories—0 to 5, and 6 to 15, (15 is highest value possible). See **Care and Feeding of Wingmen** (p. 11) for more information.

On the Carrier		In Flight	
High	11 to 15 points	*High/Average*	6 to 15 points
Average	6 to 10 points	*Low*	0 to 5 points
Low	5 or less points		
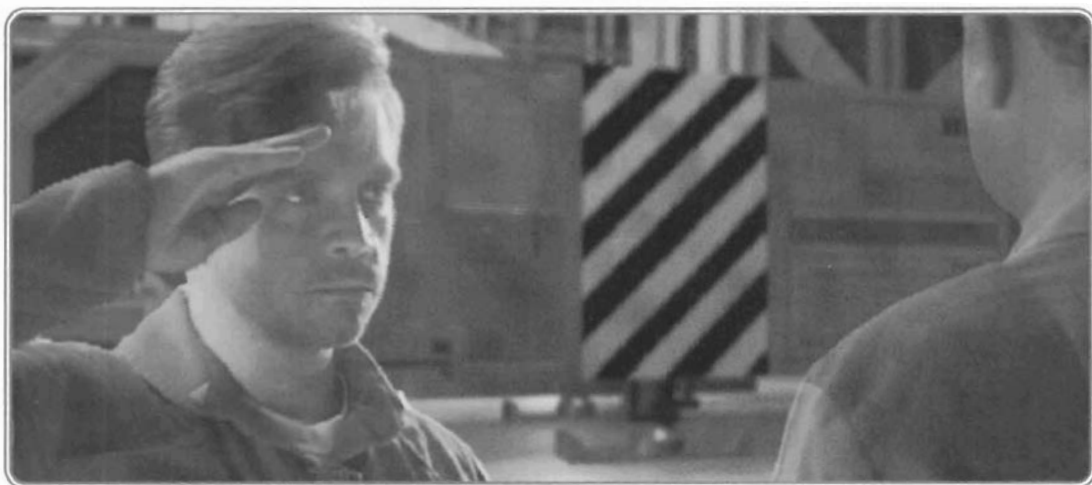
HOW CHARACTER MORALE CHANGES PERFORMANCE

Character morale numbers change several aspects of the game. Wingmen with high or average morale values will fly at their normal skill level (see **Care and Feeding of Wingmen**, p. 11). If their morale is low, wingmen fly with a lower set of skill numbers. They won't follow orders nearly as well, their shooting accuracy will suffer, and they may tend to fly recklessly.

One exception is Maniac. He doesn't ever follow orders that well, but if you're mean to him, he usually flies better and racks up more kills.

Another exception is Rachel, who isn't a pilot. Her morale doesn't affect flight performance, but it does dictate what conversations are available with her. If her morale is less than six, she'll chastise you for changing her loadouts (if you try to).

As a rule, you'd be well advised to keep Flint's and Cobra's morale scores as high as possible. They tend to fly worse with low morale than most other pilots. You can tell how well they're doing by how many times they say they're hot, they've bagged another cat or gato, or whatever their "kill" line happens to be (listed on pp 22-28).

POSSIBLE MORALE RANGES FOR CHARACTERS

The degree to which you can change morale is different for each character. Some only vary by one or two points, while others can change drastically. The following table lists the highest and lowest possible morale values for each character. Note that Hobbes is hardly affected at all, while Flint, Flash, Rachel and Cobra have the widest range of values. Keep these ranges in mind when choosing a wingman.

Character	Range	Character	Range
Vagabond	5 - 11	Rachel	2 - 13
Vaquero	6 - 10	Maniac	5 - 11
Flint	2 - 14	Cobra	4 - 12
Flash	2 - 14	Hobbes	7 - 9

SHIP MORALE

Just as talking to characters changes individual morale, some conversations in the game affect ship (group) morale. The chart on pp. 20-21 shows which onboard conversations affect ship morale. In some cases, the conversation you get when ship morale is low isn't the same conversation you get if morale is high. (For example, you have an "extra" conversation with Flint after Mission 2 of the Ariel Series if ship morale is over 10.)

Several other occurrences during spaceflight are listed below that also affect morale. (See **Mission Designations** on p. 66 for a listing of series names and abbreviations.)

Mission	Action	Ship Morale Change
Mission ORS-4	Destroy skipper missile	+2
	Let skipper hit transport	−4
Mission LOC-2	Chase after Flint	+1
	Don't chase after Flint	−1
Mission TAM-3 or TAM/L-3	Beat Flash in the simulator	+1
	Lose to Flash in the simulator	−1

GENERAL CONVERSATION INFORMATION

Morale and conversations are closely linked in the game. If a character's morale is high, he or she will respond to you differently during in-flight broadcasts. Back on the *Victory*, both character morale and ship morale control the conversation path.

Some conversations are only available if you've performed certain actions (which in turn may change morale). For instance, if you don't reinstate Flint to the flight roster, you lower her morale, then have a conversation with Eisen. He reprimands you for "passing the buck," and puts Flint back on active flying duty. If you do reinstate Flint, her morale is raised, but you never discuss the issue with Eisen.

In some cases, you have to do one thing before you can do something else. An example is the second game mission — if you didn't watch the scene between Cobra and Hobbes earlier, you're required to do so *before* you can attend the mission briefing. In fact, you can't go to the briefing until you've visited the Rec Room. As another example, you must talk to Flint before you can fly the third mission of the Orsini series.

Sometimes, conversations take a slightly different turn, depending on whether you win or lose a mission. If you do well during a mission, you'll be congratulated, and Eisen will have more positive comments during the de-briefing. Rachel and/or other pilots may also cheer and greet you on the Flight Deck. If you lose, you could get chewed out during the de-briefing, and no one will greet you.

THOUGHT RESPONSES

The chart below lists each conversation branch in the game, along with possible responses and morale effects.

Mission. The mission before which the conversation occurs. For example, TAM-3 conversations occur in scenes after Mission 2 and before Mission 3 in the Tamayo winning track series. Some conversations are available for several missions. For example, the first conversation listed (with Rollins, in the Lift) is available before each of the four Orsini missions. This is indicated by "ORS-1 to 4." (See **Mission Designations**, p. 66, for a listing of series abbreviations.)

Where. The room in which the conversation becomes available. If you don't talk to someone when he first appears, he may or may not appear later. As a rule, you should talk to someone the first time you see him in a new location. If you don't, it's possible that he may remain there for a couple more missions.

Who. The character you talk to. Sometimes, the conversation affects that character's morale. In other cases, the conversation affects ship morale.

Your Response. The responses that appear on the screen during a conversation. The one you select determines what conversation movie plays next.

Modifier. The numerical morale value applied by your response. This modifies character morale, unless "Ship" is specified.

Note: Don't always assume that the top answer on the game screen is the "correct" one that will raise morale. That's not a given!

Mission	Where	Who	Your Response	Modifier
ORS-1 to 4	Lift	Rollins	*Play along with him.*	+1 (Ship)
			This guy's a loon.	−1 (Ship)
ORS-1 to 4	Rec Room	Vagabond	*He's got a point.*	+1
			What's he hiding?	−1
ORS-2 to 4	Rec Room	Vaquero	*Sounds good to me.*	+1
			He's not focused.	−1
ORS-4	Gunnery	Flint	*She has a point.*	+1
			Tough luck – I'm the boss here.	−1
ORS-4	In-Flight		*Destroy skipper missile.*	+2 (Ship)
			Let skipper hit transport.	−4 (Ship)
TAM-1 *or* TAM/L-1	Flight Deck	Flash	*That's true.*	+1, −1 (Ship)
			This kid's a smartass.	−1, +1 (Ship)
TAM-1 *or* TAM/L-1	Gunnery	Flint/Maniac	*They're right*	+1 (Ship)
			Play it by the book.	−1 (Ship)
TAM-2 *or* TAM/L-2	Rec Room	Rachel	*Wow! I'd love to fly that ship.*	+1
			Stay clear of trouble.	−1
TAM-3 *or* TAM/L-3	Flight Deck	Flash	*This punk's not worth it.*	−1 (Char), +1 (Ship)
			Time to teach this punk a lesson.	+1 (Char), −1 (Ship)
LOC-1	Barracks	Cobra	*She knows something.*	+1
			Ah, she's full of it.	−1
LOC-1	Gunnery	Flint	*Give her a shot.*	+1
			I can't risk it with her.	−1
LOC-2	Rec Room	Vagabond	*He might be right.*	+1
			Ah, there's nothing to worry about.	−1
LOC-2[1]	In-flight		*Take the risk (chase Flint).*	+1 (Ship)
			I can't risk it (don't chase Flint).	−1 (Ship)
BLK-1 *or* BLK/L-1	Flight Deck	Flint	*Give her a break.*	+1
			Ground her.	−1
BLK-1 to 3, *or* BLK/L-1 to 3	Flight Deck	Rachel	*She understands.*	+1
			It's none of her business.	−1
BLK-2 to 3, *or* BLK/L-2 to 3	Barracks	Maniac	*He's jealous.*	+1
			It's none of his business.	−1
BLK-3	Gunnery	Flint	*Put her back on the roster.*	+1
			Let the captain decide.	−1
ARI-1	Rec Room	Vagabond	*He's worried about nothing.*	+1
			We're just pilots.	−1
ARI-1 to 3	Flight Control	Cobra	*She's right.*	+1
			She's out there.	−1
ARI-2 to 3	Barracks	Vaquero	*Stop worrying, Vaquero.*	+1
			War is hell, buddy.	−1
CAL-1 *or* DEL/L-1[2]	Flight Deck	Hobbes	*Stick up for Hobbes.*	+1 (Hobbes), −1 (Cobra)
			Play along with her.	−1 (Hobbes), +1 (Cobra)
CAL-1 to 3, *or* DEL/L-1 to 3	Gunnery	Maniac	*Rag him.*	+1
			Hey – it's tough for both sides.	−1

Mission	Where	Who	Your Response	Modifier
CAL-1 to 3, or DEL/L-1 to 3	Flight Control	Flint	*It's tough getting old.* *He's better off there.*	+1 −1
TOR-1	Flight Deck	Tolwyn	*We're all equal here.* *Score points with the admiral.*	+1 (Ship) −1 (Ship)
TOR-1	Gunnery	Flint	*She can see Tolwyn's a jerk.* *It's none of her business.*	+1 −1
ALC-1	Rec Room	Rachel	*She's OK ... she understands.* *Ah, the hell with it – have another drink.*	+1 −1
ALC-2	Flight Deck	Flint	*She's right.* *Ah, I don't have to listen to this.*	+1 −1
ALC-2	Rec Room	Cobra	*She's got a point.* *Doesn't much matter.*	+1, +1 (Ship) −1, −1 (Ship)
ALC-2	Gunnery	Paladin	*Punch the son of a bitch!* *Ah, Paladin's on my side.*	+1 (Ship) −1 (Ship)
ALC-3 to 4	Rec Room	Vagabond	*He shouldn't blame himself.* *This guy's wrapped way too tight.*	+1 −1
FRY-1	Lift	Rollins	*Well, Vagabond had his reasons.* *Vagabond went way too far.*	+1 (Ship) −1 (Ship)
FRY-1 to 2	Rec Room	Maniac	*You're asking for it, man.* *I don't need this.*	+1 −1
FRY-2 to 3	Bridge	Eisen	*Try the hard sell.* *Try the soft touch.*	+1 (Ship) −1 (Ship)
HYP-1[1]	Barracks	Flash	*Have to admit – he's a damn good pilot.* *Boy, is this guy full of himself.*	+1 −1
HYP-1 to 2	Gunnery	Vagabond	*He really deserves a home.* *He's getting soft!*	+1 −1
Talk to Flint first HYP-1 to 3	Rec Room	Flint	*Kiss her.* *Take a pass—avoid the trouble.*	=13 (Flint), =2 (Rachel) −1 (Flint), none (Rachel)
Don't kiss her, then talk to Rachel HYP-1 to 3	Rec Room	Rachel	*Kiss her, for God's sakes.* *Ah, I don't think it's a good idea.*	=13 (Rachel), =2 (Flint) −1 (Rachel), none (Flint)
Talk to Rachel first HYP-1 to 3	Rec Room	Rachel	*Oh, boy, kiss her.* *It would never work with her.*	=13 (Rachel), =2 (Flint) −1 (Rachel), none (Flint)
Don't kiss her, then talk to Flint HYP-1 to 3	Rec Room	Flint	*Oh, kiss her.* *I think it'd be a big mistake.*	=13 (Flint), =2 (Rachel) −1 (Flint), none (Rachel)
HYP-3[4]	Rec Room	Flint	*Give her a shot.* *I'm not gonna gamble with her life.*	+1 −1

[1] Ship morale is still affected, regardless of whether or not you win the mission.

[2] If you side with Hobbes, Cobra's morale drops and Hobbes' goes up (and vice-versa).

[3] If Flash's morale is low, he'll be pessimistic. If it's high, he's optimistic (but still a little cocky).

[4] Only available if you chose Flint and haven't put her on your wing since.

IN-FLIGHT TRANSMISSIONS

It pays to be a good listener, especially when it comes to your wingmen. What they say can indicate whether their morale is high or low. And if your buddy gets hit, he or she can tell you how badly the damage is. So, read through the following sections and become familiar with the in-flight lines for your wingmen.

"I'd blast planet after planet if it would rid the galaxy of Kilrathi. There's no justification for their existence."
Lt. Laurel Buckley
Callsign: Cobra

Communication	High morale	Low morale
Reply yes	Yes, sir.	Okay.
Reply no	Negative, sir.	Can't do it, sir.
Enemy spotted	Enemy sighted, Colonel.	There's the bastards.
Ready to engage	Just give the word, sir.	Ready... and waiting.
Engaging	I'm going after them.	Breaking formation.
Need help	Get this furball off my ass!	Wanna help me out here, sir.
Offer help	Hang in there. I'm on the way.	Need some help, sir?
Killed fighter	Yeah! Got the son-of-a-gun.	Another dead cat.
Compliment player	Good move, sir.	Nice one, Colonel.
I am dead	Kill them all for me, sir!	AYYYYYYYYY!
Ejecting	Ejecting!	I gotta bail!
Want to abort	Damn! I need to retreat.	Need to abort mission, sir.
I am aborting	Heading back to base, sir.	I'm outta here.
Friendly fire	Careful, Colonel.	Watch it, sir.
Annoyed	Watch your fire.	What's with you, Colonel?
No damage – 0%	I'm fine, sir.	Don't worry about me.
Some damage – 25%	Not bad, Colonel.	I'll make it.
Half damage – 50%	I think I can handle it.	Half my systems are shot.
Much damage – 75%	I'm in real bad shape, sir.	Couldn't be worse.
Mission complete	We got them, sir.	It's all over.
Taunts	Die, you furry scum!	Suck vacuum, furball!
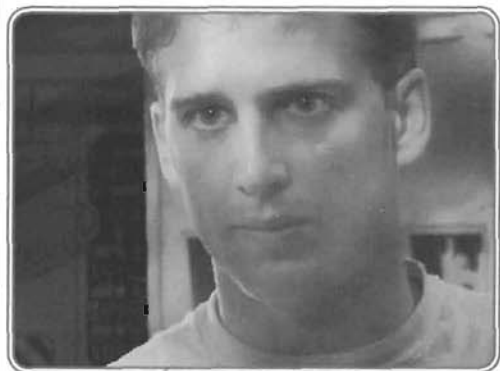
"I don't think
you should ever
apologize for
sporting a little style."
1st Lt. Jace Dillon
Callsign: Flash

Communication	High morale	Low morale
Reply yes	Gotcha, Colonel!	Yas-suh!
Reply no	That's a negatory.	Nope.
Enemy spotted	Look what I see...	Great. Just what we needed.
Ready to engage	Action is what the Flash-man needs.	What do you want me to do?
Engaging	Watch this action.	I'm going for it.
Need help	I can't shake this cat!	Try backing me up, grandpa!
Offer help	You need the Flash-man to bail you out?	Looks like the old man's in trouble again.
Killed fighter	Choke on that, you flea bag.	Chalk up another one for Flash.
Compliment player	Not bad for a dinosaur.	Wow... I'm really impressed...
I am dead	I *can't* believe this —	I *knew* this was going to happ—
Ejecting	Flash is worth more than this piece-o'-shit fighter! I'm bailing.	Ejecting! Make sure they find me.
Want to abort	This one's no-win, Colonel —	Let's cut our losses while we can.
I am aborting	Maybe you're into suicide, Colonel, but I'm turning back —	You bastard! You're going to get me killed! I'm pulling out —
Friendly fire	Help like that I don't need.	The old timer losing his eyesight?
Annoyed	You're pissing me off.	Do that again and I'll fry you.
No damage – 0%	Not a scratch.	What are you, my mother?
Some damage – 25%	Nothin's knocking me out of the sky.	A lesser pilot would be sweating bullets.
Half damage – 50%	You won't get rid of me that easy.	You watch out for yourself.
Much damage – 75%	Anybody but Flash would have ejected by now.	I'm screwed. Cover me, or my blood will be on your hands.
Mission complete	Another notch on the Flash-man's belt. Let's buzz the Victory.	Thank God *that's* over.
Taunts	I'm gonna hand you your spleen — if you've got one, you freak.	Let's put these fleabags into bodybags.

"I come from a long line of fighter pilots. My brother, my father, his father before him... Guess you could say it's in my blood."
Lt. Robin Peters
Callsign: Flint

Communication	High morale	Low morale
Reply yes	Roger that.	Affirmative.
Reply no	Negative, Colonel.	That's a big N-O, sir.
Enemy spotted	Bogies in sight.	I see them.
Ready to engage	Armed and ready.	Awaiting your command.
Engaging	Taking it to them.	Now engaging enemy.
Need help	I could use a little help.	Request assistance, sir.
Offer help	I'm here if you need me.	I'm moving in to assist you.
Killed fighter	One less Kilrathi.	Enemy engaged and shot down.
Compliment player	You really nailed him.	One for the books, sir.
I am dead	I never got to tell you, C—	Remember me, sir—
Ejecting	She's breaking up. Ejecting.	Have to eject—
Want to abort	Time for a strategic withdrawal, Colonel?	Request we scrub the mission, sir.
I am aborting	I'm pulling back.	Aborting mission, sir.
Friendly fire	Careful where you point that thing.	Sending me a message, sir?
Annoyed	This isn't making me feel very special.	So that's the way it's going to be?
No damage – 0%	All systems go.	I'm fine.
Some damage – 25%	Nothing I can't handle.	I'll get by.
Half damage – 50%	I'm hanging in there.	Could be a lot better.
Much damage – 75%	I can't take much more of this.	It looks pretty bad.
Mission complete	Mission accomplished, Colonel! Let's head home.	Mission completed, sir.
Taunts	All growl, no action.	You cats are history.

"Despite the skill and courage demanded in flying, a part of the Kilrathi spirit is never entirely satisfied by interstellar combat."
Cl. Ralgha nar Hhallas
Callsign: Hobbes

Communication	High morale (Low morale not possible)
Mission complete	Mission complete, Colonel.
Reply yes	Affirmative, Colonel.
Reply no	Negative, Colonel.
Enemy spotted	Have sighted enemy craft, Colonel.
Ready to engage	I am ready to engage.
Engaging	Engaging enemy now.
Help needed	I need assistance, Colonel.
Help offer	Would you like my assistance, my friend?
Killed fighter	I have dispatched enemy.
Nice shot	Impressive shot, my friend.
I am dead	I fear I've been mortally wounded. Goodbye, my friend.
Ejecting	I have no choice but to eject, Colonel.
Must leave	I must depart, Colonel.
I am leaving	I am withdrawing, Colonel.
Friendly fire	Careful, my friend. You have fired upon me.
Annoyed	Is there something wrong with you, my friend?
No damage – 0%	I'm happy to report that I've suffered no damage.
Some damage – 25%	Only minor damage to report, Colonel.
Half damage – 50%	I'm sorry to report that I've suffered 50% damage.
Much damage – 75%	I have sustained great damage, Colonel.
Killed capship	It brings me honor in reporting that I have destroyed an enemy capital ship.

PLAYER IN-FLIGHT TAUNTS

Time to see your vet, kitty!

You're headed for the big litter box in the sky!

I hate easy targets ...

It's like shooting cats in a barrel.

You're going home in a box!

Don't they teach you critters how to fly!

Prepare to die!

Say good night, kitty!

In your whiskers!

"Any chance I get,
I'm up in the air...
they're gonna have to
pry my dead carcass
out of the cockpit."
Major Todd Marshall
Callsign: Maniac

Communication	High morale	Low morale
Reply yes	You got it.	If you insist, 'Colonel.'
Reply no	Not possible, ace.	No way.
Enemy spotted	It's a party time!	Incoming kitties.
Ready to engage	Ready to rock'n'roll!	Turn me loose. I ain't getting any younger.
Engaging	Watch and learn, 'Colonel.'	Check these moves.
Need help	Help me out, ace.	Where the hell are you?
Offer help	Looks like I gotta save your ass again.	Need a hand, 'Colonel.'
Killed fighter	More kitty litter! I'm hot today!	One more for the kill board.
Compliment player	Lucky shot, ace.	Hey! That was my kill!
I am dead	Impossible! I can't diiiiie...!	Son of a biiiiiitch!
Ejecting	You're on your own, ace. I'm bailin'.	It's been fun.
Want to abort	It's too hot! Let's get outta here.	Hell with this. Let's head home.
I am aborting	See ya!	It ain't worth it. I'm outta here.
Friendly fire	What's the matter, ace? Can't you see I'm a good guy?	Hey! Watch your fire, ace!
Annoyed	You've been warned, ace!	I always knew you hated me!
No damage – 0%	They can't touch me.	I'm looking fine — as usual.
Some damage – 25%	Just routine damage.	A couple of lucky shots, that's all.
Half damage – 50%	I've been better.	I got more damage than I want.
Much damage – 75%	This crate's almost totaled!	This crappy ship's falling apart on me!
Mission complete	It's party time!	This one's history. Let's split.
Taunts	I'm death on wings!	Lots of ways to skin a cat.

"I've been to just about every corner of every galaxy, and it's been a hell of a ride."
Lt. Winston Chang
Callsign: Vagabond

Communication	High morale	Low morale
Reply yes	Ten-four.	Affirmative.
Reply no	Sorry, but that's a negative, good buddy.	Negative.
Enemy spotted	We got company.	Here they are.
Ready to engage	Just say the word, sir.	Anytime, Colonel.
Engaging	Here we goooo.	Here goes nothin'.
Need help	I could sure use some help, buddy.	Need assistance, sir.
Offer help	Need some back up, sir?	Looks like you need help.
Killed fighter	Nailed that critter!	'Nother one down.
Compliment player	That's some fine shootin', sir.	Not bad, Colonel.
I am dead	That's all she wrote for me, friend.	SHIIIITTTTT!!
Ejecting	I'm popping the pod. Make sure I get scooped up.	Gotta bail. Remind them to come get me.
Want to abort	I got trouble up to my ass.	Need to retreat, sir.
I am aborting	I'm blowing this pop stand.	Aborting mission, sir.
Friendly fire	Watch where yer shooting there, buddy.	What the hell are you shooting at?
Annoyed	Yer getting on my nerves, sir.	Hey! Ain't we friends anymore?
No damage – 0%	Not a scratch on me.	All systems go.
Some damage – 25%	Nothing worth bringing up.	Nothing to worry about.
Half damage – 50%	I've got a few dents.	I've got some problems.
Much damage – 75%	The Chief Tech ain't gonna like this.	I'm shot up pretty bad.
Mission complete	Time to head on home.	Time to get outta here.
Taunts	Here kitty kitty!	Time to die, cats!

"Someday I'm going to open a cantina and bring in the best... a place for old fighter jocks like you and me."
Lt. Mitchell Lopez
Callsign: Vaquero

Communication	High morale	Low morale
Reply yes	Sure thing, sir.	Right away, Colonel.
Reply no	Negative, sir.	No can do.
Enemy spotted	Gatos in sight, sir.	Shit, there they are.
Ready to engage	Ready to fry some felines.	Ready to engage, sir.
Engaging	Andale! Let's dance.	Engaging enemy, sir.
Need help	Help me double-team this gato.	I could use some help, sir.
Offer help	There's one on your tail. I'll take him out.	Looks like you need help, sir.
Killed fighter	Eat shit and die, *gato*!	That cat won't bug us no more.
Compliment player	Excellent shot, sir!	Nice work, Colonel.
I am dead	I'm breaking up! Adios, amigo!	Shit, man! I'm too youuuuunng...
Ejecting	Pinche gatos! I'm ejecting.	Sorry sir, ejecting.
Want to abort	I gotta split, sir.	It's way too hairy here.
I am aborting	Hasta la vista. See you back at the base, sir.	I'm falling back.
Friendly fire	Que pasa, Colonel?	*I'm* not the target, sir.
Annoyed	You're shooting the wrong gato!	Something wrong with your targeting systems?
No damage – 0%	My machine is clean, sir.	No damage, sir.
Some damage – 25%	I've taken some hits, but I'll be okay.	Minor damage, sir.
Half damage – 50%	She ain't what she used to be.	I've had better days.
Much damage – 75%	Tengo mucho problemas!	I won't last at this rate!
Mission complete	This mission is finito.	Mission completed.
Taunts	Vamanos, gatos! Let's rumble!	Sit still and let me fry your ass!

CONFEDERATION ORDNANCE

FIGHTERS

ARROW

The current version of the venerable *Arrow* fighter is a sleek and dangerous fighting machine. Although it's the smallest and least-armored Confed fighter, many ace pilots still prefer the *Arrow* to the heavier *Hellcat*.

The *Arrow* is the single fastest fighter in the game. Its speed makes it hard to shake, and its low silhouette makes it hard to hit.

The *Arrow* is a pilot's fighter. It's just plain the most *fun* fighter in the game. It's the perfect dogfighter. If you're still a little bit uncertain about your piloting abilities, you'll definitely want the extra protection offered by the *Hellcat*, but if you feel you've completely mastered the art of combat flying, you may find you're best able to make full use of your expertise in an *Arrow*.

Weapons	
Ion cannon	(2)
Laser	(2)
Missiles	
Missile Hardpoints	(4x2)
2 IR/2 IR	
2 HS/2 HS	
Missile decoys	(16)

- It's one of only two fighters in the game with an afterburner slide, allowing it to make quick jogs and dodges. This is especially useful to avoid a target at the end of a strafing run.

- Its armament is equivalent to the *Hellcat's* (though it doesn't hold out as long at full power) and it actually mounts two more missiles.

- It carries a decent complement of decoys, and even if it runs out, a top-notch pilot can often evade a missile.

- The *Arrow* can fire a volley of about a dozen shots at full guns without running into energy trouble.

- The *Arrow's* useful whenever you're up against Skipper missiles — you'll be able to catch up with them in a pinch if you miss your first pass.

HELLCAT V

The *Hellcat* is the current workhorse of the Confederation fleet. It balances offense, defense, speed and maneuverability into an efficient and economical package.

Weapons	
Neutron gun	(1)
Ion cannon	(2)
Missiles	
Missile Hardpoints	(2x3)
3 IR/3 IR	
Missile decoys	(24)

- It's the perfect ship for a beginning pilot on a mission where he doesn't know precisely what to expect. It's fast and maneuverable enough to go head-to-head with light fighters, and well armored enough to withstand simultaneous attack by multiple foes.

- It features a nice, low silhouette that makes it hard to target from the front, rear or sides.

- Like the *Arrow*, it can fire about a dozen shots at full guns without having to worry about energy drain.

- Even veteran pilots often prefer the *Hellcat* when they suspect they're going to be facing a mixed force of fighters and light cap ships. The *Hellcat* is fast and maneuverable enough to hold its own in a dogfight, and its superior armor and shields make a crucial survivability difference when going in against a cap ship's turrets.

EXCALIBUR

This is the Confederation dream machine. It combines the offensive punch of the largest bombers with a speed and maneuverability that can almost match the tiny *Arrow*.

Weapons	
Tachyon gun	(4)
Reaper cannon	(2)
Missiles	
Missile Hardpoints	(4x3)
3 HS/3 HS	
3 IR/3 IR	
Missile decoys	(30)

- Its gun combination is overwhelming, particularly its twin reaper cannons. The missile load-out is enormous, and its shields and armor are rock-solid.

- Then there are those little extras that mean so much — the fastest acceleration in the game (giving the fighter its afterburner "super slide" for quick maneuvering), the most missile decoys and jump capacity.

- In the final missions of the game, the *Excalibur* even gets an experimental cloaking device and (get this) a planet-buster torpedo, making it truly the fighter from hell.

- The only weak point on this fighter is its beefy silhouette, but with its armor, who cares?

Because of the way the *Excalibur's* gun energy is allocated, it requires a somewhat unique firing strategy for maximum effectiveness. The *Excalibur* has a high pool of gun energy, but its recharge rate is only slightly greater than normal. This means that it's possible to fire an *Excalibur's* full guns 30 or 40 times (assuming default energy settings and 4 to 5 trigger pulls per second) before gun energy is depleted. Once energy is depleted, it takes about six seconds to recharge, as opposed to the two seconds or so most other fighters take.

This is no big deal when, for example, you're strafing a cap ship or stationary target. You can go ahead and fire up all the rounds you have time for, then recharge as you afterburn away from the enemy. In a dogfight, however, you're probably well advised to use four or five round bursts, with a pause of at least a half second or so between bursts, to avoid running short of gun energy at a crucial moment.

THUNDERBOLT VII

Amazing as the *Excalibur* is, there's one thing it absolutely cannot do, and that's deliver a torpedo against a cap ship. For that, you need something like the good old *Thunderbolt*. Although not as sleek or sexy as the *Hellcat* or *Excalibur*, the *Thunderbolt* is very good at what it was designed to do — go head-to-head with heavy targets.

Weapons	
Torpedo	(1)
Photon cannon	(2)
Plasma gun	(2)
Meson blaster	(2)
Mass driver cannon	
rear	(1)
Missiles	
Missile Hardpoints	(2x3)
3 HS/3 HS	
Missile decoys	(24)

- A traditional heavy fighter, the *Thunderbolt* has massive armor and shields and a potent gun attack.

- Its speed and maneuverability (while not in the *Excalibur* class) are respectable for a ship its size.

- In the hands of a good pilot, the *Thunderbolt* is quite capable of bulling its way through multiple smaller opponents (the rear-mounted mass drivers are handy for shaking particularly speedy gnats off its tail).

- The *Thunderbolt*'s weak spots include a hefty silhouette and a curiously sparse missile loadout.

- Also, while its three sets of forward guns pack a formidable offensive punch, they have a very high energy drain and must be fired in three or four round bursts, with pauses of one or two seconds between.

- Most pilots prefer to fly something a little more sleek than the *Thunderbolt*, unless they absolutely know that they're going to need to use a torpedo. But if that's what it's going to take to get the job done, they know that the *Thunderbolt* will deliver the goods.

LONGBOW

Something about the *Longbow* seems to invite nautical metaphors. "Beached whale" and "sitting duck" are two of the choice descriptions applied by pilots who fly this ship.

- There's only one reason to fly a *Longbow* - overwhelming torpedo offense against heavy cap ships.

- The *Longbow* is the only Confed fighter with multiple torpedoes, so if the target doesn't pop the first time, you can come around and try again. Also, if you have to torpedo more than one ship in a single mission, the *Longbow* is your only choice.

Weapons	
Torpedo	(2x2)
Missiles	
Missile Hardpoints	(4x4)
4 HS/4 HS	
4 HS/4 HS	
Missile decoys	(24)

- You do have a few offensive and defensive assets in addition to sheer defensive bulk — a plethora of decoys, and the largest missile load-out in the game. Those missiles are particularly important — the simple fact is that the *Longbow* isn't fast or maneuverable enough to track and nail an evading enemy, but a missile is. Let your missiles go after enemy fighters while you concentrate on your primary target.

- Your guns are powerful, though not overwhelming. Your rear-mounted particle gun is particlarly useful, because at your size and speed enemies will try to crawl up your tail pipe.

- Your rear turret has limited self-targeting ability. It's not particularly fast or accurate, and you're lucky if your rear turret takes out even one enemy on its own, but it makes enemy light fighters think twice about blasting your rear shields.

- If the enemy rear attack becomes particularly heavy or threatening you can take manual control of your rear turret with the [F4] command.

- If your armor is intact and your shields are at maximum power, try ramming lighter enemy ships. Your shields are stronger than theirs.

MISSILES

The traditional function for a missile is as a *coup de grace,* a weapon to send at a weakened but elusive opponent to finish him off. Many ace pilots, however, have a thing about missiles. They scorn missile kills, preferring to blast with guns whenever possible. This is a logical habit. After all, guns are a renewable resource, missiles are not.

On the other hand, even the most hard-core gun-nut admits that there are times when missiles have their uses.

One of the best times to spend a missile is when closing to engage a numerically superior force of enemies. The enemies will take evasive action to avoid your missile, scattering their formation.

Even the lowly **Dumbfires** have their uses. Dumbfires aren't much good in a dogfight, but against small capital ships they can be deadly. As the most powerful conventional missile in the game, they can function as mini-torpedoes, and even *Arrows* can mount them. Just strafe the cap ship, and release your dumbfire at the bottom of your run, when the target's too close to evade. If you know you're going to run into a small cap ship in a light or medium fighter, it's in your best interests to mount a rack of dumbfires, particularly if you're not heavily into missile combat against other fighters.

Heat Seekers are tough to use in a dogfight, particularly against smaller and faster ships. It's hard to stay on a smaller ship's tail long enough to get a lock with a heat seeker. Heat seekers come into their own when you're the one in the lighter ship, fighting heavy fighters or bombers. If you can get on one's tail and stay there, a rack of heat seekers can do a good deal to hasten his demise (they're also handy against heavy fighters with rear-mounted turrets). Heat seekers even pack enough punch to do some good against cap ships, if fired into the target's rear thrusters, preferably a whole rack or so in quick succession.

The dogged **Image Recognition** is an excellent all-purpose missile. Its moderate lock time is more than compensated for by its high speed and healthy punch.

The wonderful thing about **Friend or Foe** missiles is whenever you need a missile, it's ready to go. No messing around with lock times or other tedious nonsense. Their damage potential, however, is very low. There's generally not much point in wasting an FF unless the target is already substantially damaged.

The **Leech** is one of the Confederation's most exotic weapons. It drains energy directly from the target's power core, reducing shields, speed, gun energy and repair. It can leave a small target completely dead in space. The leech is probably most useful, however, against heavy fighters, to slow down their hefty shield and gun recharge rates.

Mines don't do a whole lot of damage, but they are zero-maintenance — they work even if you're in the middle of an intense dogfight. They're particularly handy if you can drop them early in a multi-wave engagement. Just remember not to run over your own mine!

DECOYS, YOUR NEW BEST FRIEND

Meet the missile decoy, your new best friend. These happy little buddies are your first and best line of defense against enemy missiles. All Confed fighters mount plenty of decoys, and you should be ready at a moment's notice to drop one as soon as your Missile Lock warning light comes on, or a missile shows up on your tactical display (unlike chaff in earlier *Wing Commander* games, there's no reason to wait to deploy the decoy once you know the enemy has launched a missile). Make sure to afterburn away at an oblique angle for at least a couple of seconds after dropping a decoy, to get yourself out of the incoming missile's flight path.

The odds of a decoy working are markedly in your favor. There's normally a 70% chance that your decoy will attract an enemy missile, but only a 30% chance that an enemy's decoy will attract yours. The only time this is not true is against named enemy aces. These highly experienced fighters have customized the guidance systems of their missiles and the programming of their decoys to the point where your decoy has a 50% chance of distracting the enemy missile, and the enemy decoy has a 50% of distracting yours. If an enemy missile gets past your first decoy, it will then have to check against any other decoys you've dropped, so dropping multiple decoys will increase your chances.

Sometimes the enemy will ambush you by sending a whole flight of missiles against you the second you come out of autopilot. This is when a decoy can really save your bacon. The best way to avoid an enemy salvo is to release your decoy immediately and afterburn out of the vector of the enemy missiles, then, staying on afterburn, turn and head *directly through* the enemy squadron. When this maneuver is performed right, the enemy fighters will turn to follow you, conveniently interposing their ships between you and their own missiles. Of course, you've got to be careful not to give the enemy time to line up on your tail.

TORPEDO RUNS

Torpedoes have decent range, but they're bigger and slower than other missiles, and they can be targeted and destroyed by enemy turrets. Therefore, it's best to unload a torp when you're right on top of the enemy.

Classic torpedo-run tactics still work best. Come in at full afterburn, aiming for one of the ship's weak points (thrusters or bridge) and ignoring all escorts and turrets. Wait until the target fills your entire screen, then release the torp. Pull out, still on full afterburn, and keep going for several seconds until you're back out of range of the turrets. Once you're clear, release the afterburners, deal with any enemy fighters that may have gotten on your tail during the run, and then see if you need to make a second pass. If your target is too big to be destroyed by a single torp, try to renew your attack as soon as possible, either with a second torp or with guns and conventional missiles, to avoid losing ground to the enemy's shield regeneration rate. Remember, it only takes 10 seconds for shields to return to full, no matter how thick they are.

Torpedoes won't lock on target while they're inside a cap ship.

POWER SETTINGS

Changing your power levels makes things happen faster or slower, but generally doesn't make things stronger or weaker. For example, if you increase (or decrease) your engine power level, it changes your acceleration so that you get to top speed in less (or more) time. It does not, however, increase your top speed (either cruising speed or afterburner speed) or increase your available fuel supply. Reducing your engine power below 25% (the default setting), however, will *decrease* your top speed, and reducing it to zero will leave you unable to move. Therefore, diverting power from engines to other systems under combat conditions is not recommended.

Changing your gun power increases your guns' recharge rate, but doesn't affect their energy pool, range or damage (see next page for an explanation of gun energy pools and recharge rates). Modifying shield energy changes the speed at which shields regenerate, but doesn't make them stronger or weaker. Damage repair energy makes the ship repair damaged systems faster or slower.

There's no magic formula for customizing your power settings for maximum efficiency. The best place to set the power levels on any given mission depends entirely on your flying style and the needs of the mission.

You must remember, however, that every time you increase energy to one system, you're decreasing it to all the other systems by a proportional amount. Even if you have one or more of your settings locked at a certain level, that just means that those settings that aren't locked will be drained all the more when you increase another.

If you increase or decrease any bar by one click (5%), the other three bars will all decrease or increase by about 1.7% each. If you have one bar locked down and change another by one click, the two remaining will change by 2.5% in the opposite direction. If you have two bars locked down and change a third, the one remaining will change by the same amount, and if you lock down three bars you can't change the fourth either. All percentages are percentages of the *total* available energy, not of the energy previously allocated to that bar.

One common power allocation strategy is to take your weapons and shields up by one or two clicks each, and reduce your damage repair energy by one or two clicks. The theory here is that the extra shield energy will enhance your survivability more than enough to compensate for the loss of damage repair speed, and if you do take non-fatal damage you can always crank your damage repair to the max after the battle before moving on to the next checkpoint (just remember to return your power settings to their combat levels before engaging autopilot).

Some "real men" pilots like to reduce their shields and damage repair down to zero, and put all their extra energy into guns. If you're a good enough pilot that you're *absolutely sure* you can keep an enemy squarely in your sights from the second he first appears there until he pops, then you might find this a viable option. Otherwise, think twice.

If you're heavily damaged with fighters still around, shift most power to shields, leaving a little for weapons.

If you've used up your missiles and have taken out all fighters and cap ship turrets, shift all power to weapons. You don't need your shields, and the faster recharge rate will deliver shots more quickly.

GUN ENERGY

The *Victory Streak* helpfully gives you the energy expended by a single shot from any given weapon. However, it unfortunately fails to give you the size of the energy pool that the weapon draws from. The table below is designed to help you pace your shots effectively by providing some useful numerical values.

For more specific information on timing your shots, see the individual ship descriptions above.

Energy is the maximum nanoJoules of gun energy that the ship can store at any one time.

Regeneration is the maximum nanoJoules that can be restored to a depleted energy pool every second at default gun energy settings. Raising your gun energy can increase this rate.

Maximum Energy Expended is the number of nanoJoules drained by a single shot at Full Guns.

Sustained Fire Time is the approximate number of seconds at default energy settings that a marksman can sustain a rate of fire of 4 or 5 shots per second before running out of energy.
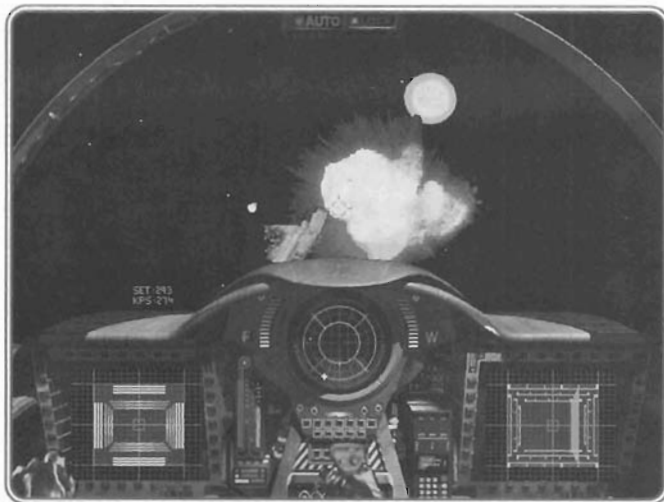
Fighter	Energy	Regeneration	Max. Energy Expend.	Sus. Fire Time
Arrow	500	300	80	3-4 seconds
Hellcat	500	300	80	3-4 seconds
Excalibur	2800	500*	194	8-9 seconds
Thunderbolt	750	450	204	1 second
Longbow	700	350	124	2 seconds

* Note that while the *Excalibur* can maintain sustained fire for almost three times as long as any other fighter, it takes almost six seconds to restore totally exhausted gun energy, while most fighters totally regenerate in less than 2 seconds.

All of the above numbers are based on a default gun energy setting of 25%, but by boosting your gun energy a few clicks you can dramatically increase your sustained fire time. In fact, if you can arrange your power settings to give you 50% of energy to guns, you'll be able to fire the *Arrow*, *Hellcat*, *Excalibur* and *Longbow* continuously at 5 shots per second, and the *Thunderbolt* continuously at 4 (but see previous page for the potential pitfalls of boosting one power setting at the expense of the others).

KILRATHI ORDNANCE

The Kilrathi will always come at you in waves of one to 10 ships. Usually the next wave will only attack when the entire first wave has been destroyed, but sometimes reinforcements will arrive while the previous battle is still going on. There can be as many as seven waves per battle (though one to four is more typical), and there can be as many as eight action spheres per mission (though again, one to five is more typical).

The exact mission breakdown, giving the precise composition of every wave of every engagement in the game, is given beginning on p. 66. But if you don't chose to use it, at least remember the general rule to always check your radar as soon as you finish off one wave, to see if another wave is on its way in to cause you trouble.
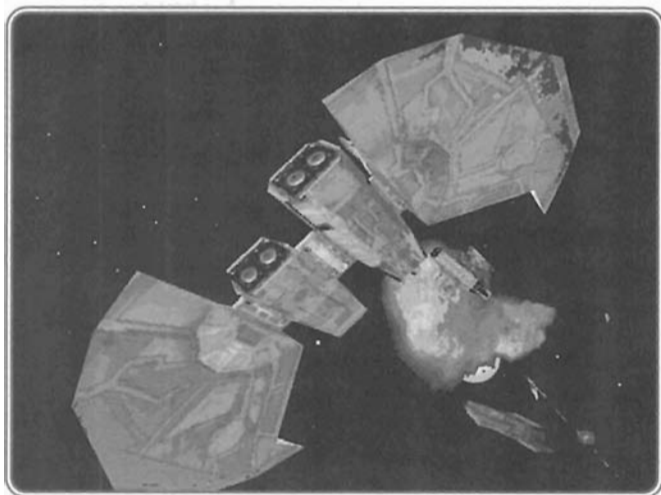
These numbers (either in general or specific to the mission) are also handy to keep in mind when deciding whether or not to use missiles or fuel. You can be a lot more free with these non-renewable resources when you know you're close to returning to the carrier. On the other hand, sometimes the game will send the killer wave at you right at the start of the mission, hoping to take advantage of your desire to conserve resources to destroy you or leave you damaged for the weaker waves to follow. The lesson here is, if you really need missiles or afterburners, use them.

TAUNTS

The function of taunts in the game (other than the psychological satisfaction they provide) is to annoy a Kilrathi into peeling off the beleaguered wingman or cap ship he's attacking and get him to attack you instead. Taunting does not cause a Kilrathi to attack any more carelessly or aggressively, it just convinces him to change targets.

The other way to get a Kilrathi to attack you is, of course, to fire on him. If you combine firing on the enemy with taunting, the two effects are cumulative, making it much more likely that you'll attract the attention of the Kilrathi you're trying to decoy.

The effectiveness of taunting and taunting-by-fire is entirely dependent on the enemy's Aggressiveness stat (listed on pp. 49 and 51). More aggressive pilots are less likely to be influenced by taunting—they are more firmly fixed on finishing off the target at hand before thinking about other concerns like honor or self-preservation. The odds of any given taunt distracting an enemy are semi-random, but on the average it will take one to three taunts or attacks to distract an enemy with Aggressiveness 0, four or five if Aggressiveness is 1, and six to eight if Aggressiveness is 2.

KILRATHI IN-FLIGHT TAUNTS

Generic Enemy Pilot
You pathetic descendant of monkeys!
You fly like the ape that you are!
You will not survive *this* battle, ape scum!
I shall eat your heart and spit it out, Terran!
Die, you furless freak!
The Confed ape dares to attack?!

Bloodmist
Your feeble skills make me laugh, leaf eater!
I can smell your fear!
Humans are clawless cowards!
You will be destroyed, ape!
Prepare to die, Terran!

Thrakhath
Your people you will soon be our slaves!
Death you shall welcome when I am through
    with you!
You will die with dishonor, ape!
Your days are over, prey-species!

Stalker
I will gut you, human!
Your pathetic attempts at flying make me
    laugh, Human.
These Terran apes get more feeble with
    every battle!
These fools are unworthy of our weapons!
Your kind dies without honor!

Fireclaw
You are worth less than the dung on Ryka III!
Fight you scum!
You dare to battle with me?!
You puny furless freak!
Why waste time with your maneuvers,
    Terran?! Your death is imminent!
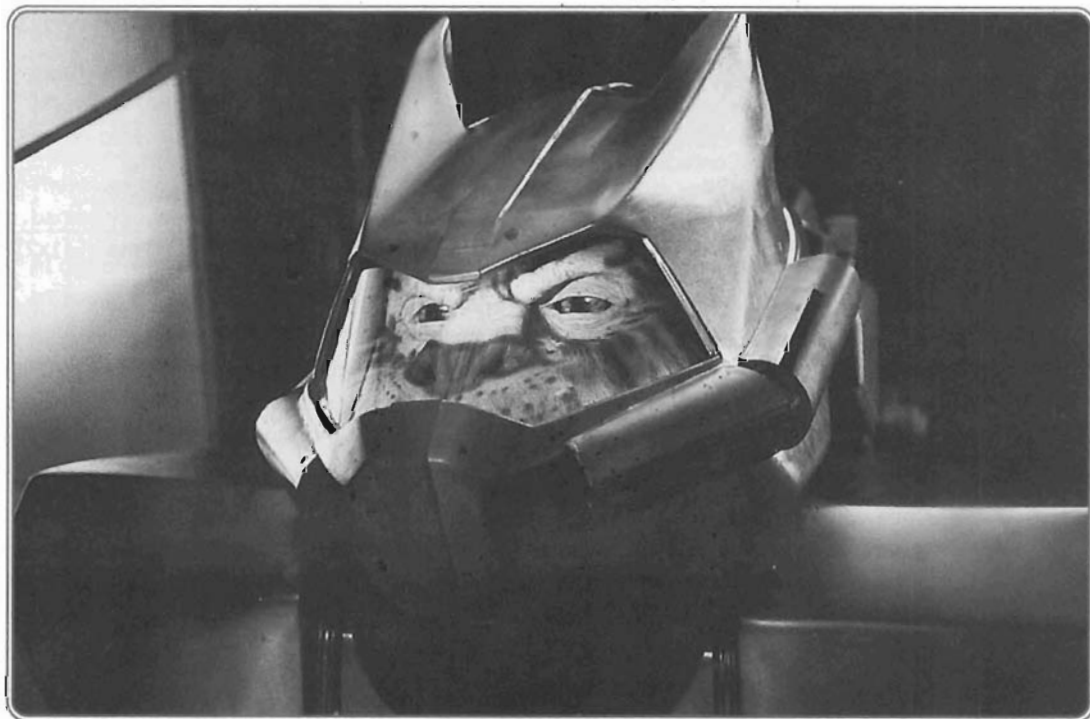
FIGHTERS

The good news is that one-on-one, a Confederation fighter is always more than a match for its opposite number on the Kilrathi side. The bad news, of course, is that the Kilrathi almost never come at you one-on-one.

One general principle about most Kilrathi fighters (with the major exception of the *Paktahn*) —Kilrathi fighters have very tiny silhouettes from the back and front, much larger, more solid silhouettes from the top, bottom or sides. The moral of this story is obvious · when jousting with a Kilrathi, try to get as far out of his front vector as you can while still maintaining a steady offensive fire.
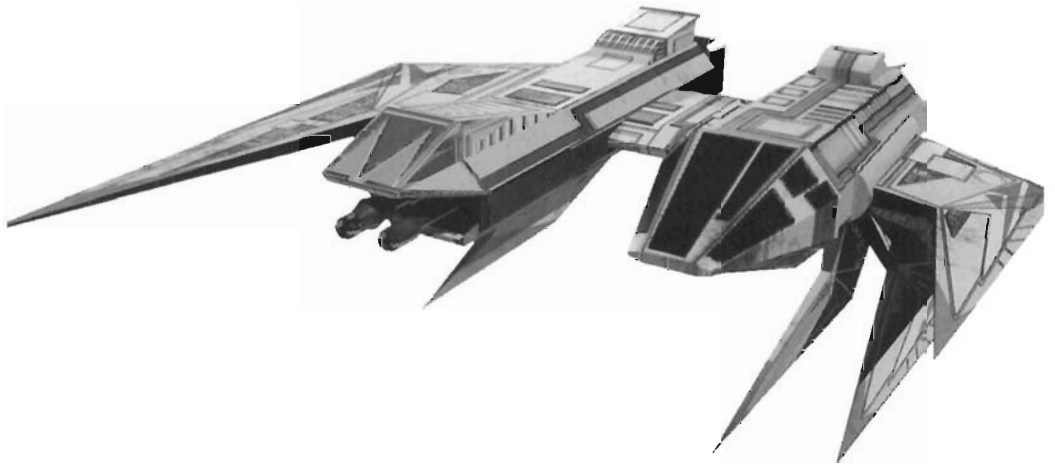
DARKET

The tiny, diabolically quick *Darket* is much, much less powerful than any of the Confederation ships, but that doesn't mean it's not a threat.

Weapons	
Meson gun	(2)
Missiles	
Missile Hardpoints	(1x2)
2 HS	
Missile decoys	(6)

- *Darket* are explicitly designed with a single tactic in mind. They exist to gang up on Confederation fighters. While one *Darket* engages the enemy from the front, evading his shots and missiles with its formidable speed and maneuverability, the other *Darket* line up behind him and nibble him to death with guns or blast him with heat seekers. (*Darket* get much better at actually implementing this tactic at higher skill levels.) The moral to the story is: keep the *Darket* in front of you.

- Once you've whittled down the enemy *Darket* to the point where they're one to one, they're no longer any sort of effective threat, but they can still be devilishly hard to run down and smash. If you're not fanatical about missile conservation, you may want to tag a slightly-wounded *Darket* with an IR missile, just to save time. Even a single missile shot is usually enough to take a *Darket* out of action.

DRALTHI IV

Earlier versions of the *Dralthi* were able to take on an *Arrow* one-on-one at even odds. No more. Today's *Dralthi* has fallen significantly behind the *Arrow* in terms of speed, maneuverability, offense and defense. Despite these relative weak points, however, the *Dralthi* remains an effective baseline fighter on its own terms, particularly in teams or packs.

Weapons	
Particle cannon	(1)
Meson Blaster	(2)
Missiles	
Missile Hardpoints	(1x4)
4 IR	
Missile decoys	(6)

- Although not as specifically oriented toward the rear attack as the *Darket,* the *Dralthi* still loves to sneak up on an otherwise-occupied enemy from behind, and in that position it can be deadly.

- There are no special tricks to taking out a *Dralthi*. Keep it in your sights, don't let it get behind you, be ready to drop a decoy against its missiles.

- At higher skill levels the *Dralthi* like to launch most or all of its missiles at you right away, as you close to attack. Watch out for this and be ready to drop a decoy or three and afterburn away from the enemy at an oblique angle before turning to close if you see missiles approaching.

- *Dralthi* tend to dodge up at the end of a strafing run. If you keep that in mind it becomes easier to keep them in your sights.

- *Dralthi* almost always pull up if you go head-on with them. If you fly straight at them, aim up to increase your chance of a hit.

VAKTOTH

The *Vaktoth* is a classic heavy fighter. It's quick, and very well armored (for a Kilrathi). You can probably take on a *Vaktoth* with just about any Confed ship, but you can't take it for granted.

- The *Vaktoth* has a formidable gun array, including a couple of rear-mounted meson gun flyswatters. Try to approach it from an angle, to stay out of its sights.

- Because of their armor, *Vaktoth* take longer to destroy than other Kilrathi fighters. When fighting a mixed group of Kilrathi that includes *Vaktoth,* it's probably a good idea to take the *Vaktoth* out first, to neutralize the threat from those big guns.

Weapons	
Tachyon gun	(1)
Plasma gun	(2)
Ion cannon	(2)
Meson gun rear	(2)
Missiles	
Missile Hardpoints	(2x4)
4 FF / 4 FF	

STRAKHA

Stealth fighters are such a pain. In cloak, out of cloak, in cloak, out of cloak, zap, in cloak...

Weapons	
Meson gun	(2)
Laser	(2)
Missiles	
Missile Hardpoints	(1x5)
5 FF	
Missile decoys	(6)

- The good news is that the *Strakha* has a weak defense, making even the *Darket* look tough. You can probably take it out with just one or two good blasts at full guns. The problem is getting it in your sights.

- One missile hit would take out a *Strakha* easy, but just forget about getting a missile lock through its cloak.

- If you're attacked by a squadron of *Strakha,* fire a salvo of FF missiles. Even if one ship cloaks out, each missile will search out another one and reassign itself to a visible target.

- *Strakha* will always cloak up as soon as you turn to face them, and won't uncloak until they get around to your rear or flanks. The only way to get a *Strakha* in your front sights is to wait until he uncloaks to attack you, then whirl around and surprise him. Get those shots off fast, because you won't get many before he cloaks up again.

- Rear turrets are very handy against *Strakha,* because they only cloak up when they're in your front sights.

- Even if you can't see a *Strakha,* it's still there. And if you get lucky and hit it, it *will* take damage. Don't hesitate to squeeze off a few shots after the *Strakha* enters cloak.

- *Strakha* pack a lot of FF missiles, which don't need a lock to target you, so watch out for that surprise quick missile attack. The FF barrage is the *Strakha's* deadly ace-in-the-hole.

- The only way to take out a *Strakha* is to play cat and mouse until you can run it down.

- Chasing down a fighter this small and fast is time-consuming enough without the cloak — with the cloak it becomes an exercise in patience. Against mixed squadrons that include *Strakha,* save the *Strakha* until last. Other ships can be taken out much faster.

PAKTAHN

Take a look at that silhouette! The *Paktahn* just doesn't care if you target it. And why should it? It's the best armored offensive ship in the game. *Paktahn* are veritable floating bunkers

Weapons	
Tachyon gun	(1)
Plasma gun	(2)
Ion cannon	(2)
Meson gun rear	(2)
Missiles	
Missile Hardpoints	(2x4)
4 FF / 4 FF	
Missile decoys	(8)

- Always take out the *Paktahn* first in any Kilrathi squadron. After all, the only reason to send a *Paktahn* out at all is because it's after one of your cap ships. Killing all *Paktahn* will certainly cripple the Kilrathi plan of attack.

- Also, it's just good sense to be firing at the *Paktahn* rather than waiting for the *Paktahn* to fire at you. They have impressive arsenals front and back, and a plethora of FF missiles that they won't be at all shy about sending your way.

- Always try to approach the *Paktahn* from an angle, preferably an angle in their rear quadrant. (Just remember not to let the *Paktahn's Dralthi* or *Darket* escorts line up behind you while you're pounding away at the bomber.)

- Don't waste your missiles against a *Paktahn*, just nibble away at his rear shields with guns. (Save the missiles to scatter those pesky escorts.)

EXOTIC FIGHTERS AND WEAPONS

FKAPSHI

Ekapshi are light fighters used by the Kilrathi for ground support and other atmospheric operations. They're small, but very fast and maneuverable, and can be a real pain when they outnumber you Although the armor and shield ratings are unimpressive, the *Ekapshi's* speed, maneuverability and offensive capability make it an effective opponent, particularly in groups.

Class
Atmospheric Fighter

Max Velocity
430 kps

Acceleration
200 k/s^2

Max. YPR
65/55/55 dps

Max. Afterburn Velocity
1100 kps

Jump Capable
no

Shields

Fore	250 cm equiv.
Aft	128 cm equiv.

Armor

Fore/Aft	80 cm
Right/Left	60 cm

Weapons

Laser	(4)
Meson gun	(2)

Missiles

Missile Hardpoints	(1x4)
4 HS	
Missile decoys	(8)

ASTEROID FIGHTER

An Asteroid fighter is basically a heavy fighter covered in a few thousand tonnes of rock. They're usually used to mine and patrol approaches to secret Kilrathi bases hidden in asteroid fields. These rock fighters have lots of armor, not much shield. Missiles are mostly good against Asteroid Fighters if you have to take one out quickly, but don't expect anything to happen on the first one. Do not, under any circumstances, collide with the asteroid fighter in a lighter ship. Also watch out for the large chunks of solid rock debris they throw off as they take damage.

Class	Max. Afterburn Velocity	Weapons	
Heavy Fighter	950 kps	Reaper gun	(4)
Max Velocity	**Jump Capable**	Meson gun	(2)
380 kps	no	**Missiles**	
Acceleration	**Shields**	Missile Hardpoints	(2x8)
150 k/s^2	Fore 250 cm equiv.	8 mine / 8 mine	
Max. YPR	Aft 200 cm equiv.	Missile decoys	(8)
50/40/40 dps	**Armor**		
	Fore/Aft 500 cm		
	Right/Left 500 cm		

SKIPPER MISSILE

The Skipper is a strategic missile designed for use against large targets and ground installations from orbital distances. It's big and slow and can be shot down with guns. The Skipper's main defense is its ability to slip in and out of cloak every three seconds, making gun fire more difficult and missile locks impossible.

Penetration	Acceleration	Duration
60,000	150 k/s^2	1 hour
Speed	**Maneuverability**	**Lock Time**
380 k/s	20 dps	1 sec.

SCOUT FRIGATE

The scout frigate is a glorified frigate, equipped with high-resolution radar and enhanced tracking software that supports electronic jamming techniques. Their purpose is to scout out enemy actions and report fleet coordinates to their base of operation.

Class	Max.Velocity	Armor	
Frigate	160 kps	Fore/Aft	600 cm
Length	**Acceleration**	Right/Left	600 cm
620 meters	10 k/s^2	**Weapons**	
Mass	**Shields**	Laser Turrets	(3)
26,000 metric tonnes	Fore 1000 cm equiv.	FF missile turrets	(2)
Max. YPR	Aft 1000 cm equiv.		
5 dps			
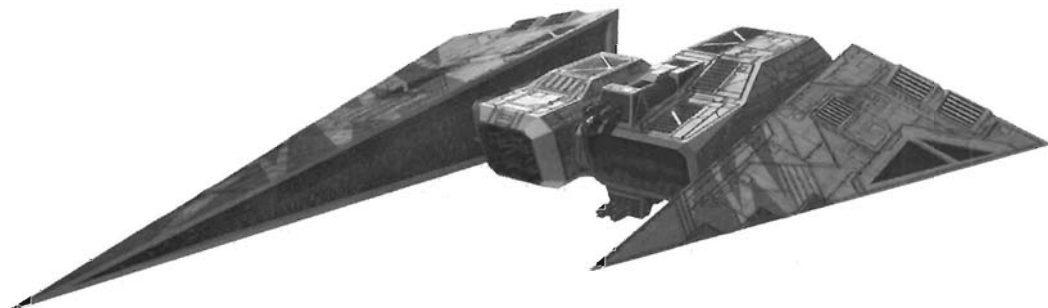
SORTHAK

Call it iron-butt. The super-heavy *Sorthak* occupies a dangerous middle-ground between a bomber and a corvette. It's just barely too small to lock a torpedo on, but definitely big enough to be a major threat. It's remarkably fast and maneuverable for a ship its size, and of course it's armored to the teeth, but what really makes the *Sorthak* a menace are its twin, independently turreted meson guns. It can effectively engage several Confederation targets simultaneously, from virtually any angle, and its extra-powerful shields make it hard to destroy, even against multiple opponents. This is the only fighter in the game whose rear is every bit as dangerous and well-defended as its front. Fortunately, it has a fairly bulky silhouette, which helps during flanking approaches, but taking out a *Sorthak* is still a tough job from any angle.

Class			Max. Afterburn Velocity		Weapons	
Superheavy Fighter			950 kps		Meson gun (turreted)	(4)
Max Velocity			**Jump Capable**		Meson gun (rear turreted)	(2)
400 kps			yes		**Missiles**	
Acceleration			**Shields**		Missile Hardpoints	(2x4)
200 k/s^2			Fore	250 cm equiv.	4 HS / 4 IR	
			Aft	400 cm equiv.	Missile decoys	(10)
Max. YPR						
65/55/55 dps			**Armor**			
			Fore/Aft	180 cm		
			Right/Left	180 cm		
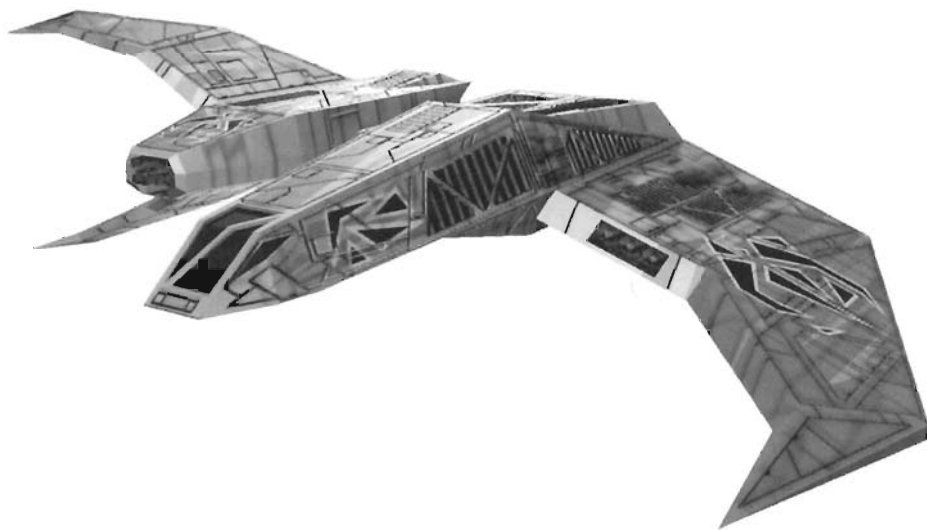
BLOODFANG

The *Bloodfang* is the best ship in the Kilrathi fleet, flown by Prince Thrakhath, the deadliest pilot in the Kilrathi fleet. His exclusive toy is designed to be the ultimate dogfighter. It's fast enough and tough enough, and Thrakhath is smart enough, to go head-to-head with an *Excalibur*. Your best bet is to let go with a salvo of many missiles from close range, but of course Thrakhath will do the same to you, if he gets the chance. There are no tricks or short-cuts against the *Bloodfang*. To beat it, you have to be smarter, sneakier or just plain better than the Empire's best pilot.

Class	Max. Afterburn Velocity	Weapons	
Superfighter	1400 kps	Tachyon gun	(2)
		Plasma gun	(2)
Max Velocity	**Jump Capable**		
560 kps	yes	**Missiles**	
Acceleration	**Shields**	Missile Hardpoints	(3x3)
375 k/s^2	Fore	250 cm equiv.	3 HS / 3 FF /3 IR
	Aft	400 cm equiv.	Missile decoys	(12)
Max. YPR			
70/90/90 dps	**Armor**		
	Fore/Aft	100 cm	
	Right/Left	100 cm	

PILOT RATINGS

Wing Commander III has two generic Kilrathi pilot profiles for each of the main Kilrathi fighter types — a Normal pilot and an extremely skilled Veteran. In addition, there are identified Ace pilots for the *Darket*, *Strakha* and *Paktahn*, as described on p. 51. There is only one base set of stats for the *Ekapshi* and *Sorthak*, and Thrakhath and Hobbes are the only pilots flying their special fighters.

The table below gives the stats for each level of Kilrathi pilot in each fighter (Stats are defined on p. 12).

	Darket			Dralthi		Vaktoth		Strakha			Paktahn		
	N	V	A	N	V	N	V	N	V	A	N	V	A
Aggressiveness	1	2	2	1	2	1	2	1	1	1	1	1	1
Carefulness	1	2	2	1	1	1	1	1	2	1	1	1	1
Courage	1	2	2	1	2	1	2	1	2	2	1	2	2
Flying	1	2	2	1	2	1	2	1	2	2	1	2	2
Gunnery	1	2	2	1	2	1	2	1	2	2	1	2	2
Loyalty	1	2	2	1	2	1	2	1	2	1	1	2	1
Verbosity	1	2	2	1	2	1	2	1	0	0	1	2	0

	Ekapshi	Asteroid		Sorthak	Hobbes	Thrakhath
	N	N	V	N	A	A
Aggressiveness	1	1	1	1	2	1
Carefulness	1	1	2	0	1	1
Courage	1	1	2	1	2	2
Flying	1	1	2	1	2	2
Gunnery	1	1	2	1	2	2
Loyalty	1	1	2	1	2	1
Verbosity	1	1	0	0	2	2

SKILL LEVELS

There are three different skill levels of enemy pilot: Normal, Veteran and Ace. There are six different skill levels of the game AI, three regular levels (ROOKIE, VETERAN and ACE) and three "bonus" levels (HARD, CRAZY and NIGHTMARE). The six skill levels are, by and large, created by modifying the Flying and Gunnery levels for each pilot skill level.

ROOKIE. All Kilrathi have Flying and Gunnery skill 0, right up to Prince Thrakhath himself. They tend to mill around and even collide with each other. They don't fire much.

There are two other unique feature of ROOKIE level. First, your gun aim is slightly self-correcting. If you're locked onto an enemy, and fire a gun so that you almost hit it, you really do hit it. As in horseshoes and hand grenades, "close" counts.

Second, all damage that Terrans inflict is doubled, while all Kilrathi damage is halved.

VETERAN. Veterans and Aces have Flying and Gunnery skill 1; Normal pilots have Flying and Gunnery skill 0. You'll come under fire a bit more than at ROOKIE level, but they still don't maneuver very well.

ACE. Everyone has the skill levels that they were designed to have. This is the default setting.

HARD. Everyone in the game has Flying and Gunnery skill 1. Expect to be under fire almost constantly.

CRAZY. Everyone in the game has Flying and Gunnery skill 2. Expect constant heavy fire and a lot of diabolically effective tactics. Missiles start to fly freely and the enemy becomes much more willing to expend decoys.

NIGHTMARE. Everyone flies at the highest level. Tactics and marksmanship are both as good as the computer can make them, and they use missiles and decoys just as freely as you do.

	KILRATHI FLYING AND GUNNERY SKILLS		
Game Skill Levels	Normal	Veteran	Ace
ROOKIE	0	0	0
VETERAN	0	1	1
ACE	1	2	2
HARD	1	1	1
CRAZY	2	2	2
NIGHTMARE	2	2	2

ENEMY ACES

There are different markings on the fighters of ace Kilrathi, but they're hard to make out under combat conditions. The best way to find out if you're fighting an ace is to cycle through your targets with your communicator activated. The ace will be identified by name, rather than by fighter type.

The biggest difference between an ace and any other enemy pilot, besides their high stats, is that the normal Kilrathi pilot thinks of himself as a member of a group out on a mission. The current engagement is probably only one of several potential conflicts they might have to deal with on the way back to base. Consequently, he'll be a bit conservative with his non-renewable resources, like missiles and decoys.

The ace, on the other hand, thinks of himself as a hunter out looking for *you,* personally, Mr. Hot-Shot-War-Hero-Heart-of-the-Tiger. Those other guys are just there to cover his back. He'll go absolutely, 100% all out to take you down with everything he's got.

Aces also have significantly more effective missiles and decoys than regular Kilrathi. (See **Decoys, Your New Best Friend,** p. 35.)

When fighting a formation that includes an ace, always try to ID the ace quickly and take him out first. Do not, however, call your wingman to gang up on the ace with you. Leave him behind to hold off the rest of the enemy squadron. Dogfighting an ace will require all your attention, and you won't have time to worry about any extra attackers.

BLOODMIST

Bloodmist is the enemy's most feared *Paktahn* pilot. Bloodmist will attack in the first mission in Blackmane sector (but only if you're on the winning track).

Aggressiveness......1   Flying 2   Loyalty 1
Carefulness............1   Gunnery 2   Verbosity 0
Courage 2

FIRECLAW

Fireclaw is a rather suicidal Kilrathi ace who actually prefers to fly a *Darket*. You'll encounter Fireclaw in the first mission in Locanda.

Aggressiveness......2   Flying 2   Loyalty 2
Carefulness............2   Gunnery 2   Verbosity 2
Courage 2

STALKER

Stalker is the Empire's foremost *Strakha* pilot. You face him in the third mission in Alcor Sector (an optional mission). Even if you've already defeated him, he (or a close relative) will mysteriously reappear in the final series to murder the rest of your wingmen.

Aggressiveness......1   Flying 2   Loyalty 1
Carefulness............1   Gunnery 2   Verbosity 0
Courage 2

THRAKHATH

You'll have two chances to face Prince Thrakhath, the Kilrathi supreme commander. He'll try to challenge you during the disastrous final mission in Loki, but if you accept, the *Victory* will jump sector without you, and win or lose, your game is over. You'll also face him in the final mission to Kilrah. Thrakhath always flies in his *Bloodfang* super-fighter (see p. 48).

Aggressiveness......1   Flying 2   Loyalty 1
Carefulness............1   Gunnery 2   Verbosity 2
Courage 2

HOBBES

After Hobbes kills Cobra and escapes the *Victory*, eventually you'll face him in combat. You can either chase him down immediately or wait until the final battle, when he reappears as Thrakhath's wingman (still flying the *Thunderbolt* he stole from the *Victory*). Either way, he flies a bit differently against you than he did with you.

Aggressiveness......2   Flying 2   Loyalty 2
Carefulness............1   Gunnery 2   Verbosity 2
Courage 2

GENERAL TIPS

PREFLIGHT

There's a reason the game starts out each mission on the hangar deck, rather than in space. Your time on the carrier is provided so you can get your ship into the exact fighting condition you prefer.

Your cockpit sure is pretty, isn't it? Hit F1 and turn it off anyway. An invisible cockpit greatly enlarges your field of vision, making it much easier for you to keep a dodging enemy in your sights.

Set your guns to full (or whatever setting you prefer, though full is recommended). Make sure that your favorite general-purpose missile is ready. Make any adjustments to your power settings that you want to make.

Once all that's done, go ahead and hit your jets or autopilot out of the carrier. Before you start for the first nav point, however, make sure your ship is set to your preferred combat speed. You may also want to open a communications channel with your wingman before engaging autopilot, so you can release him quickly if there are bogies waiting for you on the way. (Once you do release your wingman, get in the habit of immediately hitting the M key, to return your left MFD to the screen.)

Save after you land each time. That way, you can go back and affect conversations differently before you begin a new mission.

STRAFING RUNS

The basic offensive tactic in *Wing Commander* is always the strafing run, where you move toward your target at high speed, firing guns and missiles at him all the way in and veering off at the last possible instant. Against other fighters, your target will generally be heading directly at you, guns blazing, at the same time, creating a "joust" situation. Either that, or he'll be heading away from you, putting you on his tail — a highly desirable place to be.

The secret of a successful strafing run is to time your shots to maximize the possible damage for the run. Don't start firing if you're more than 3000 km out. Beyond that point you're just wasting gun energy that would come in more handy at the end of the run. Some of your heaviest guns won't even reach beyond 3000 km. Ideally, you should time your run so that you run out of gun energy with your very last shot before veering off.

If you're flying an *Arrow* or *Excalibur*, practice maneuvering with the afterburner slide. If you tap your afterburners at the exact right moment, the afterburner slide will slip you slightly out of line with your opponent, letting you zip past without ever changing course. This in turn allows you to keep firing longer and get away faster.

At the end of your run you have two choices, either to afterburn away from the enemy for a second or two to give your guns time to recharge, or to pivot as quickly as you can to try to get on his tail before he can turn. The second tactic is most attractive to quick, maneuverable fighters against heavier opponents. It's always better to be behind an enemy than in front of him, but if you don't have any reasonable chance of staying on an opponent's tail, there's no point in rushing into the next pass. If you're fighting a cap ship, you'll definitely want to afterburn away after a strafing run, to get out of range of the target's turrets.

I NEVER TOUCHED HIM!

Sometimes you'll see an enemy blow up while you're still closing, before you ever fire a shot or even release your wingman. This happens when two members of the enemy squadron collide, usually right after they come out of autopilot (or wherever Kilrathi come from). Since this is most likely to happen when there are a lot of enemies heading your way, don't let it bother you too much.

HITTING WITH MISSILES

There is an art to hitting with missiles. It's not just a matter of waiting for a lock and then letting go.

You want to release a missile when you're close to an enemy. Otherwise it's too easy for him to drop a decoy and slip out of the way.

At the same time you don't want to be *too* close. If you're too close to a target (particularly when he's not heading straight toward you) the enemy can zip right past both you and the missile before it can get to him. This causes the missile to have to turn around to stay on target, and turning around takes a long time out of the short life of a missile. If the missile has to turn around, there's a good chance that the target can just afterburn away, and the missile will run out fuel before it even reaches it.

How close is close enough, and how close is too close? Well, that depends on your opponent, your flying and fighting style, your ship and your relative speed. In short, it's something you have to get a "feel" for. Hit that simulator.

The ideal angle of attack for a targeting missile is a short, shallow arc or straight line from point of origin to point of impact.

All of the above, of course, assumes that you're actually firing a missile to hit, and not just as a decoy. If you're just firing a missile into an oncoming wave of enemy to scatter their formation, you don't need to worry about targeting subtleties.

IR missiles pack a bit more firepower than FFs. HS missiles are the hardest to get a lock with, but provide the biggest damage potential.

If you have several targets in view, target a ship and fire one FF or IR missile. Switch targets and then fire another.

GUN CONTROL

Wing Commander III is not a video game. You can't fire continuously until you happen to accidentally tag an enemy. You have a finite (though renewable) amount of gun energy and it's up to you to make sure you get as much damage potential out of it as you can. Most sharpshooters agree that Full Guns is the way to go for maximum offensive punch, but Full Guns sucks up a lot of energy.

So the first principle of effective gun combat in this game is *always time your shots.* The best marksmen never allow their gun energy to deplete to the point where their damage potential starts to decline. Instead, they plan their volleys so that they can be at full power when they most need offensive punch, then recharge when the enemy backs off for a moment.

To time your shots effectively, you first have to know how long your gun energy will hold out for your fighter type. Some figures and estimates are given for that purpose on p. 37, but the actual amount of time you can keep going at full offense will depend on your reflexes, your chosen power settings, and your firing strategy, and so can only be accurately determined by you.

Concentrate on one enemy at a time so that you can wear down his shields and destroy his ship. If you start attacking one ship, then switch to another, you're giving your first victim a chance to repair his damage.

TIMING STRATEGY

There are basically two strategies for timing your shots to maximize your gun energy.

Berserker Charge. This is when the fighter begins an assault at full gun energy, attacks as fast and furiously as possible until his gun energy is exhausted, then breaks off the attack and retreats for a couple of seconds to recharge. This strategy absolutely maximizes the fighter's destructive potential, but can leave you stranded without any gun energy just when your really need it.

Burst Attack. This is when the fighter establishes a set pattern where he squeezes off about 3 to 5 shots as fast as he can, then pauses for a second or so while his guns recharge, then repeats the process. This strategy isn't quite as offensively overwhelming as the Berserker Charge, but it does allow the fighter to lay down a constant stream of fire without ever completely depleting his gun energy reserves.

TARGETING STRATEGY

There are three fundamental targeting strategies, one of which is worthless.

The Sweep. This is the worthless one. If the enemy is crossing your screen from right to left, you pan your cross-hairs across the screen left to right, hoping to score a hit where they meet in the middle. This is often the easiest way for a novice marksman to score a hit, but it's a bad habit to get into. Not only is it desperately wasteful of gun energy, it also spreads your shots out so thin that you're unlikely to ever get through the enemy's shields, much less inflict any real damage. Because of shields and their inconvenient habit of regeneration, the most important shot is usually the second or third consecutive hit, the one that actually takes off a chunk of armor.

The Bouncing Ball. This is where you try to center your crosshairs on the green ITTS dot and keep it there for as long as your gun energy holds out. If you can actually do it, you can make every single shot count for the entire duration of your volley. The only problem with this strategy is that the ITTS dot is an even smaller and more erratic target than the enemy ship itself — it's *hard* to keep it square in your sights, particularly when your opponent changes direction suddenly. This strategy is best suited to the "Berserker Charge" timing strategy described above.

The Cool Hand. This strategy requires nerves of steel, but is extremely efficient. It involves keeping your crosshairs centered on the enemy ship itself. But since you know that the ITTS doesn't lie, you hold your fire until the ITTS and the target line up (indicating the target is either coming straight for you or blasting directly away). When your shot is lined up, then you open up with full guns. If your opponent tries to veer off, it's your call whether to try to stay on him or let him go until he lines up again.

This is an extremely efficient and economical strategy (which works rather naturally along with the "Burst Attack" timing strategy described above), but if facing multiple opponents (particularly smaller, quicker ones) you have to be on the lookout for the possibility that the enemy is just dancing in front of you while his buddy sneaks up on your tail. When this happens you have to be ready to switch to a "Bouncing Ball" targeting strategy fast (or do a quick flip and try to take out the rear attacker fast).

REAR GUNS

Rear-mounted weapons are actually miniature turrets, able to track their target independently of the ship's vector. So tracking an enemy with rear guns does not change your ship's direction — your ship will keep moving forward along the same vector. When you switch from front to rear view, your input device (joystick, keyboard or mouse) automatically switches from steering the ship to just aiming the rear guns. Even if you don't have time to take out an enemy with rear guns, a few well-aimed shots will probably serve to get him off your tail for at least a few seconds.

The *Longbow's* rear guns have limited self-targeting capacity, and will fire whenever an enemy ship is in their arc. They're not very accurate, but they're handy to discourage pests. These guns can be targeted manually, just by switching to rear view.

DAMAGE

All ships in the game are divided up into four quadrants -- front, rear, right and left. Top or bottom hits all fall into one of these quadrants, depending on where on the ship they hit.

RIGHT

FRONT

REAR

LEFT
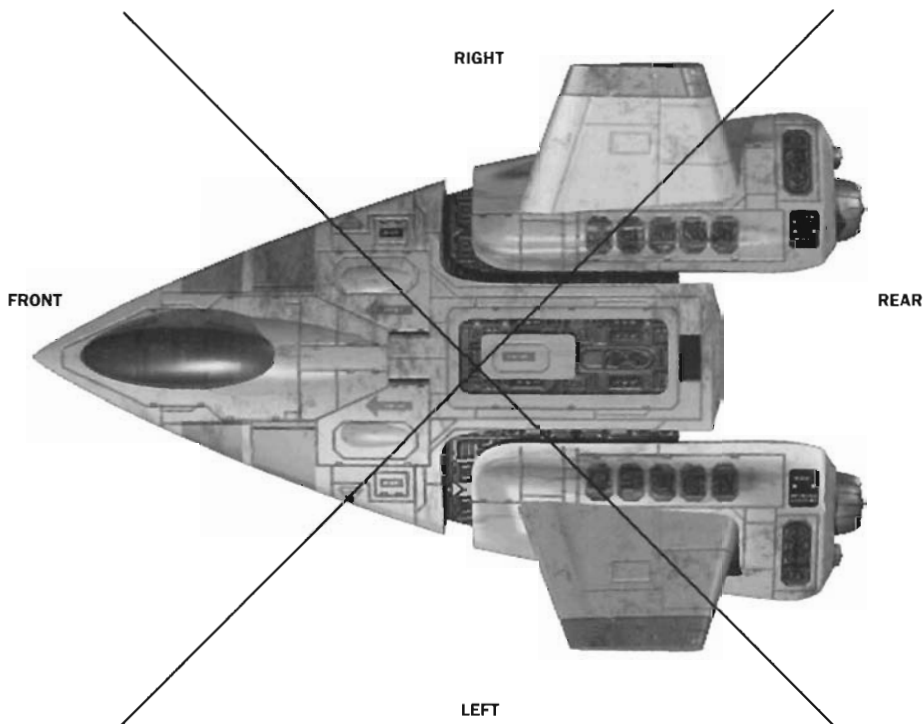
Each quadrant has its own shield and armor, and a certain number of ship's components. Damage does not begin to accrue to armor until that side's shields are completely down, and the ship itself doesn't start to take damage until all the armor on a side is gone, and the shield is completely down.

Each ship has a certain number of damage points, which represent the amount of damage the ship can take after its armor and shields are both gone.

Fighter Type	Max. damage per side	Fighter Type	Max. damage per side
Terran Fighters	225/75	Ekapshi	48*
Asteroid Fighter	60*	Paktahn	60
Bloodfang	75*	Sorthak	90*
Darket	45	Strakha	45
Dralthi	60	* See p. 45-48.	

The reason for the split score for Confederation fighters is that the computer "cheats" in your favor. Wingmen's ships can take a respectable 75 points to a given side before exploding, but your own ship can take a full 225 points to a given side.

INTERNAL COMPONENTS

Each time a ship takes a hit that gets through armor and shields and damages the ship itself, there is a chance that some internal components will be damaged. Each quadrant holds two or three internal systems, and these systems are located in the same quadrant regardless of fighter type.

Front Systems	VDU 1, VDU 2 and Central Tactical Display
Right Systems	Communications, Shields, Auto-Repair System
Back Systems	Afterburners, Power Plant, Engine
Left Systems	Targeting, Guns

The function of most of these components is self-explanatory. Damage to the power plant will lower available power to engine, weapons, shields and damage repair, just as if all those levels had been simultaneously reduced on the power settings. Damage to the engine will reduce top speed and acceleration.

Ships' repair systems will automatically repair most components, except those mounted in front (VDU 1, VDU 2 and the tactical display), which cannot be repaired. Also, any component that's completely destroyed (has taken a full 100 points of damage) cannot be repaired. If the power plant or engine is totally destroyed, the ship blows up.

Damage is somewhat randomly allocated among components on the side, but the probabilities are weighted so that the components listed first in the table above are most likely to go down first, and the ones listed last will probably go down last (e.g., communications will probably go out before the shields, and the auto-repair system will probably go out last of all). It is also possible for the randomization process to cause the ship to take structural damage (i.e., lose damage points) without any of the internal components being damaged at all.

Internal component damage is something only you really have to worry about. Because the destruction threshold for enemy and wingman ships is so low, the program doesn't bother to track their component damage — they'll blow up before any of their components go out anyway. This is the price you pay for all those extra damage points.

CAP SHIPS

As the *Victory Streak* notes, all cap ships have weak points where it's easier to get through their shields and armor. Weak points common to all cap ships include the rear thrusters and the bridge (look for a forward cluster of windows). Damage applied to a weak point is multiplied by 1.5, so that an 800-point dumbfire missile will do 1,200 points if it hits a weak point. The best weak point on any cap ship, however, is *inside.* With fighter-carrying cap ships like carriers and bases, you can actually fly into and through the target, blasting away all the time. Not only is there the weak-point damage multiplier of 1.5 against the interior walls of a ship, but it also has no shields or armor protecting it!

If you're trying to perform a fly-through on a cap ship, reduce your speed to a controllable level, but keep moving. If your attack succeeds, you want to be on the way out when the cap ship starts to blow. One way to maximize both speed and control on fly-throughs is to use afterburners only. Avoid fly-throughs if the cap ship has any escorts left — you're a sitting duck to anybody on your tail when you're both inside a cap ship.

Turrets can and probably should be individually targeted and eliminated. You don't need to blast every turret on the cap ship, just the ones that have you in their line of fire.

Your main weapon against cap ships is your guns. You can't pack enough missiles to make a serious dent on a big cap ship, but a gun can just keep pounding until it gets the job done. The sophisticated self-targeting missiles are particularly useless against cap ships, due to their low damage (and it seems a pity to waste all that fancy targeting circuitry against something that big and easy to hit). Of course, a rack of dumbfires released against a weak point, or even a rack of heat seekers released after you've been pounding the thrusters for awhile, can speed things up a bit. Just don't expect any amount of missiles to get the job done by themselves.

The exception to all of the above, of course, is the torpedo, an explicit anti-cap ship weapon. The problem arises when there are more Kilrathi cap ships than there are torpedoes available.

The shield regeneration rates for the Kilrathi cap ships are calibrated to regenerate totally in 10 seconds (as are the shields of every other ship in the game, for that matter). Thus, a cruiser, with a maximum shield strength of 3,000, recovers 300 points of shield each second. However, this regeneration is divided among all sides with damaged shields, so if the cruiser had low shields on two different sides, the regeneration rate for each side would be only 150 per second, until at least one of the damaged sides was back to full. Therefore, if you and your wingman are both attacking the same cap ship, your best strategy is to attack a different side from your wingman, to reduce shield regeneration to a manageable level.

DAMAGE POINTS

In addition to the armor and shield ratings given in the *Victory Streak*, cap ships also have damage points, which are a measure of how much damage the structure of the ship itself can take after all armor and shields are destroyed on a given side. Until you factor in the damage points, it's impossible to predict exactly how much damage it will take to destroy a given ship.

The damage points for the cap ships listed in the *Victory Streak* are given below. The final column lists the damage points for a single turret on each ship type.

Ship	Shields	Armor	Body	Turret
Starbase	—	1000	20,000	240
Supply Depot	—	11,200	20,000	—
Corvette	1000	500	7000	144
Scout	1000	600	2000	192
Transport	3000	300	6,000	192
Light Destroyer	1500	1000	16,000	200
Heavy Destroyer	2000	1000	16,000	384
Cruiser	3000	1000	30,000	296
Carrier	2000	1000	30,000	480
Dreadnought	8000	1500	80,000	800

ENGAGING CAP SHIPS
BASES AND DEPOTS

Eliminating these targets is mostly a matter of persistence. Depots have no shields at all, but they do have more than 10,000 points of armor, in addition to their damage points. They also have no intrinsic weaponry. Basically, destroying a depot is about as tactically complex as cracking a walnut.

Starbases do have a single defensive turret that needs to be taken out, and 1,000 points of shield regenerating at up to 100 points a second, so they need to be assaulted steadily if they're going to be taken out by a fighter. Still, there's probably no need to spend a torpedo on a base unless you're in a hurry; just shut down the defense, eliminate any escorts, then pound away with guns until the job is done.

CORVETTES AND TRANSPORTS

Corvettes and transports can be easily taken out by a single fighter with a torpedo. A really sharp pilot can even destroy them with guns alone, if he can eliminate their turrets first.

Note that with 3000 points of shield, and a max recharge rate of 300 points per second, the transport is actually harder to take out than the corvette, once both ships have been offensively disabled.

DESTROYERS

Destroyers are about the biggest target a team of fighters will ever be asked to tackle solo (if you ever come up against anything bigger, and you're not flying a multiple-torpedo bomber or running interference for a friendly cap ship, you're having a *very* bad day). To destroy a destroyer requires timing, team work and flawless piloting.

There's no quick kill with destroyers, and you will need a torpedo, or better yet two. First, take out any escorts, if possible, before closing into range of the destroyer's turrets. Then eliminate all the turrets that have your chosen point of assault in their line of fire. Definitely choose a weak point to concentrate your fire on, and remember to have your wingman attack a different side to keep shield regeneration down.

Once the defenses are taken care of, unload all available torpedoes, then continue to pound steadily with guns and normal missiles until the job gets done.

CRUISERS, SCOUTS AND CARRIERS

Technically, it's not impossible for a team of fighters to take out a cruiser, scout or carrier, but it's usually not worth the effort. If you're flying support for a friendly cap ship against one of these bad boys, concentrate on the escorts and let mama worry about the big nasty. If all the escorts are gone you might want to make a quick strafing run against an enemy turret, if you feel particularly heroic, but don't worry about seriously trying to disable the enemy battle wagon all by yourself. If you do decide to join your cap ship in attacking an enemy battle wagon, make sure and concentrate on the turrets on a side other than the one your cap ship is concentrating on, to divide the enemy's shield regeneration rate.

If you're out on a patrol or mission, and you run into a ship this size, just *run away* if it's at all possible for you to do so.

If you feel you absolutely must try to take a cruiser, scout or carrier on, follow the same general strategy outlined under **Destroyers**, above. Your wingman had better be in good shape, because if he's not you're going to be using all your gun energy just to counter the target's shield regeneration, while doing little if any real damage. If the target is a carrier, your best bet is definitely to fly through and attack from inside.

DREADNOUGHT

There's only one dreadnought in the game. It's Prince Thrakhath's personal RV, and like Mary's little lamb, everywhere that Thrakhath goes the dreadnought's sure to be.

With more than twice the damage points of any other ship in the game, and almost three times the shield (regenerating 800 points per second), the dreadnought is the only Kilrathi ship that's completely impossible to kill. So don't try. When the dreadnought's in a battle, make it your business to stay in another part of that battle. There's nothing in the game that ever requires you to engage or destroy the dreadnought — it's just there to tantalize you into trying something stupid.

EVADING MISSILES

The problems with targeting missiles (discussed in **Hitting With Missiles**, p. 53) can work to your advantage when you're the target of a Kilrathi missile attack. If the enemy releases a missile very close to you, as you drop your decoy afterburn *toward* the enemy—not straight toward him, but at a close angle. If you can move past the missile it will have to turn to chase you, giving you plenty of chances to drop as many decoys as you want. Sometimes you can even outrun a missile in a fast ship, if you can keep it turning instead of heading straight for you.

AFTERBURNER HOP

One advanced tactic is to reduce your normal speed to zero (or to some very low speed), and maneuver entirely with short taps on your afterburners.

This tactic is used by the best marksmen to provide maximum targeting stability. It's never acceptable to stand still in space, because if you do the enemy will rapidly gang up behind you and take you out. But the afterburner hop allows a pilot to track opponents, maneuver, follow and evade without always having to compensate for the relative velocities of himself and his target. Maneuvering with afterburners can also come in handy in confined areas, like asteroid fields, or when flying through enemy carriers or bases.

The afterburner hop definitely takes practice. Novices tend to either forget to tap their afterburners when things get hot, or keep them on too long, making their speed uncontrollable.

STRATEGIC RETREAT

When you take damage, it's often worth your while to point your ship away from the enemy and afterburn away for a few seconds, to give your repair systems a little while to effect repairs. Obviously, this tactic works best when your wingman is still present and in good shape, and you haven't reduced your repair system power levels to increase your gun or shield energy. Strategic retreats are also risky when you're fighting a larger number of fast enemies —your retreat might just give them the chance they've been waiting for to get on your tail.

Probably the best time for a strategic retreat is immediately after winning a tough dogfight, before a new opponent can pick you up.

SHAKING YOUR TAIL

If you're being tailed by faster enemy fighters and you can't seem to shake the attackers, try using short afterburns of no more than a few seconds. The enemy will often try to match his speed to yours, and when you drop your afterburn he'll sometimes shoot right past you into your forward sights.

COLLISIONS

Each fighter type has a unique damage value for collisions, which is just short of the total of a given side's armor and shields. This means that you'll usually survive one collision unless you're already heavily wounded. Even if you have taken some damage, you're still probably more likely to survive the collision than the enemy you're colliding with, because of your formidable advantage in damage points.

Ramming, however, is not a recommended tactic. Armor doesn't regenerate, which means a single collision will leave you with an extremely vulnerable side for the rest of the mission. If you try to ram, that vulnerable side will almost certainly be the front, which has to take the brunt of enemy attacks anyway (and where damaged components don't auto-repair). So, while ramming might work once in a great while as a desperation tactic, it's never recommended over conventional attacks.

Accidental collisions are also something to be avoided, particularly against smaller, faster fighters (especially *Darket*). It's aways a good idea to fire at a *Darket* that's strafing you from the front, because it might forget to peel off at the end of the run. One of the few ways for a single *Darket* to do serious damage to an *Excalibur* is to kamikaze into it.
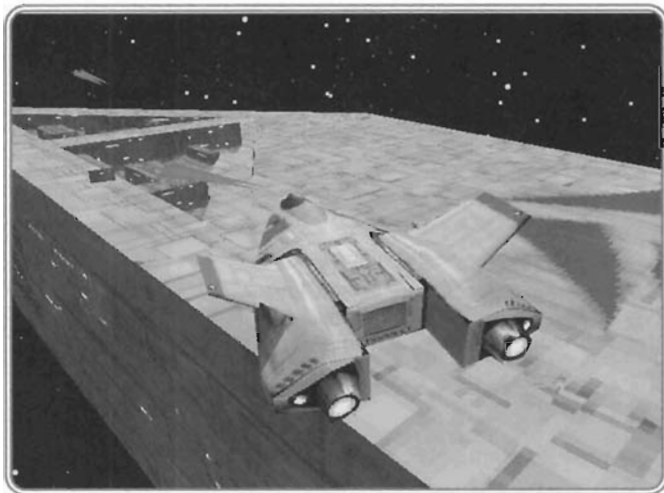
RECUPERATING

Once an action area is cleared, there's never any deadline to move on to the next nav point. So if you've taken a beating in a fight, go ahead and take a few minutes afterwards to let your repair systems work on any damaged components. If you do this, however, remember to set your speed to zero, to avoid wasting fuel.

IN THE BOX

The simulator box on the flight deck is one of the most valuable assets for the novice fighter pilot. It's not just a toy. The 10 pre-set missions in the simulator teach you the fundamentals of virtually every flight technique you'll need to win the game. Everything else is just learning to do the same things faster against more bad guys at once.

If you're really seriously stumped by a given mission, your first stop should always be a trip to the simulator to work on your basics. Even if you're an experienced pilot in the final missions of the game, a few runs in the "gauntlet" simulation can always help your speed, accuracy and endurance.

GROUNDHOG DAY

There are three missions in the game where you attack ground targets. When your mission involves delivering a T-Bomb, the T-Bomb mount will replace two full racks of missiles, cutting your missile loadout in half.

Ground missions fly a lot like space missions. The main threat on a ground mission is the *Ekapshi*, the astonishingly quick and hard-hitting Kilrathi atmospheric fighter. The best way to deal with an *Ekapshi* is just to get on his tail and stay there. It's hard to hit a dodging *Ekapshi*, but if you stay on him long enough he'll eventually either make a run directly at you or dive straight for the ground, and that's when you can line him up in your sights and take him out. Fortunately, it doesn't take many shots from an *Excalibur* to take out an *Ekapshi*.

Unless they're a specific part of your mission objective, ground targets can just be ignored, even the ones that shoot back. Ground-based attackers don't have to be cleared before you can move on to a new area, and they're not very accurate anyway, so concentrate on getting the *Ekapshi*, then get out of there (unless you just want the target practice).

The ground itself is a threat, but only a marginal one if you take some basic precautions. Your *Excalibur* is immune to gravity, so you won't crash unless you point yourself at the ground and thrust towards it. A crash is treated like a collision which means that the first time it happens you'll probably bounce (losing, at worst, most of your armor on one side). Further scrapes are much more likely to damage components or even crack up your ship. If you're flying low, watch out for unexpected mountains that pop up in your flight path.

If your mission is to deliver a bomb, don't approach the final target too quickly. The T-Bomb takes a long time to lock on, and if you come in too fast you might find yourself on the ground before your bomb even finishes locking.
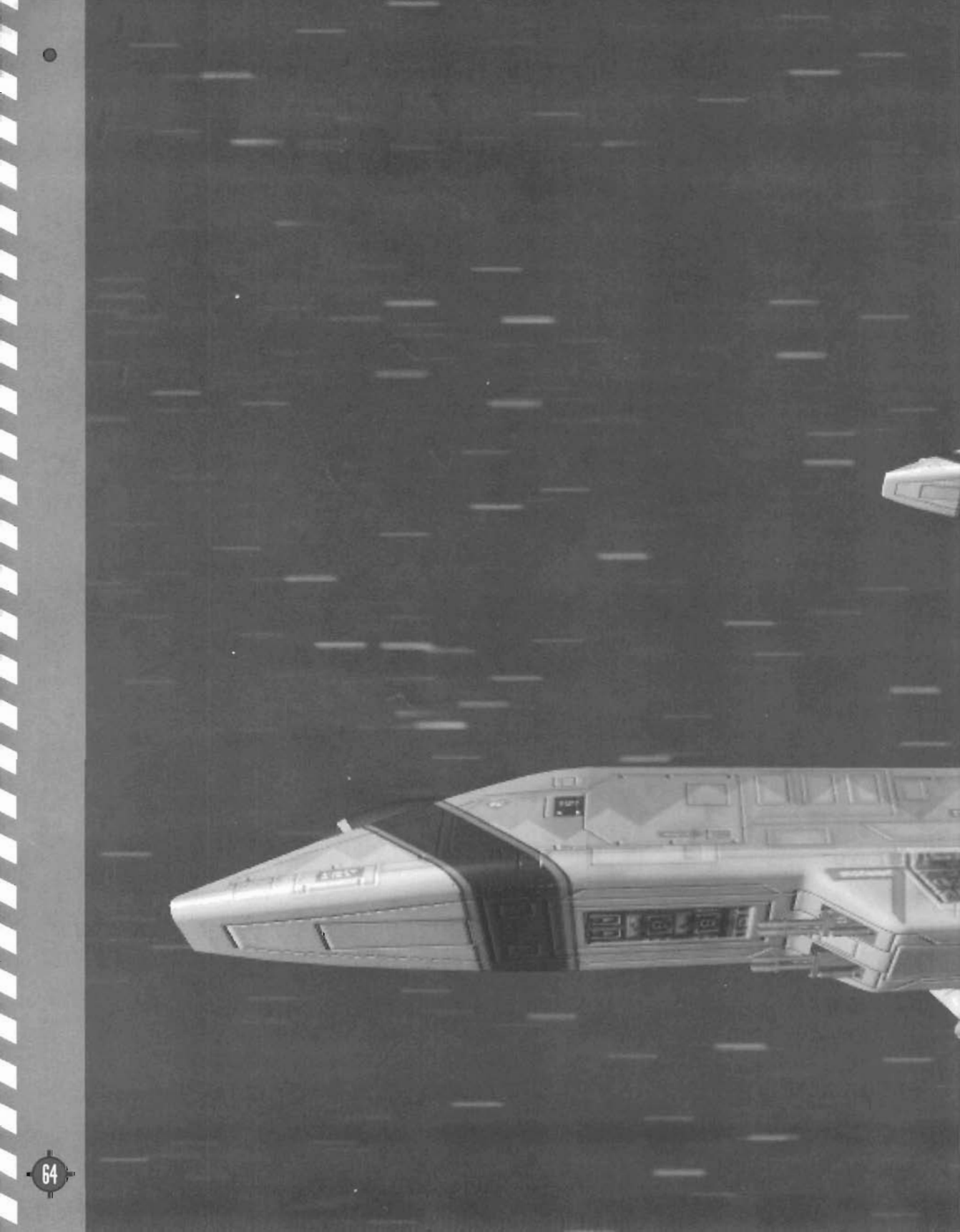
WING COMMANDER III
MISSION ANALYSES
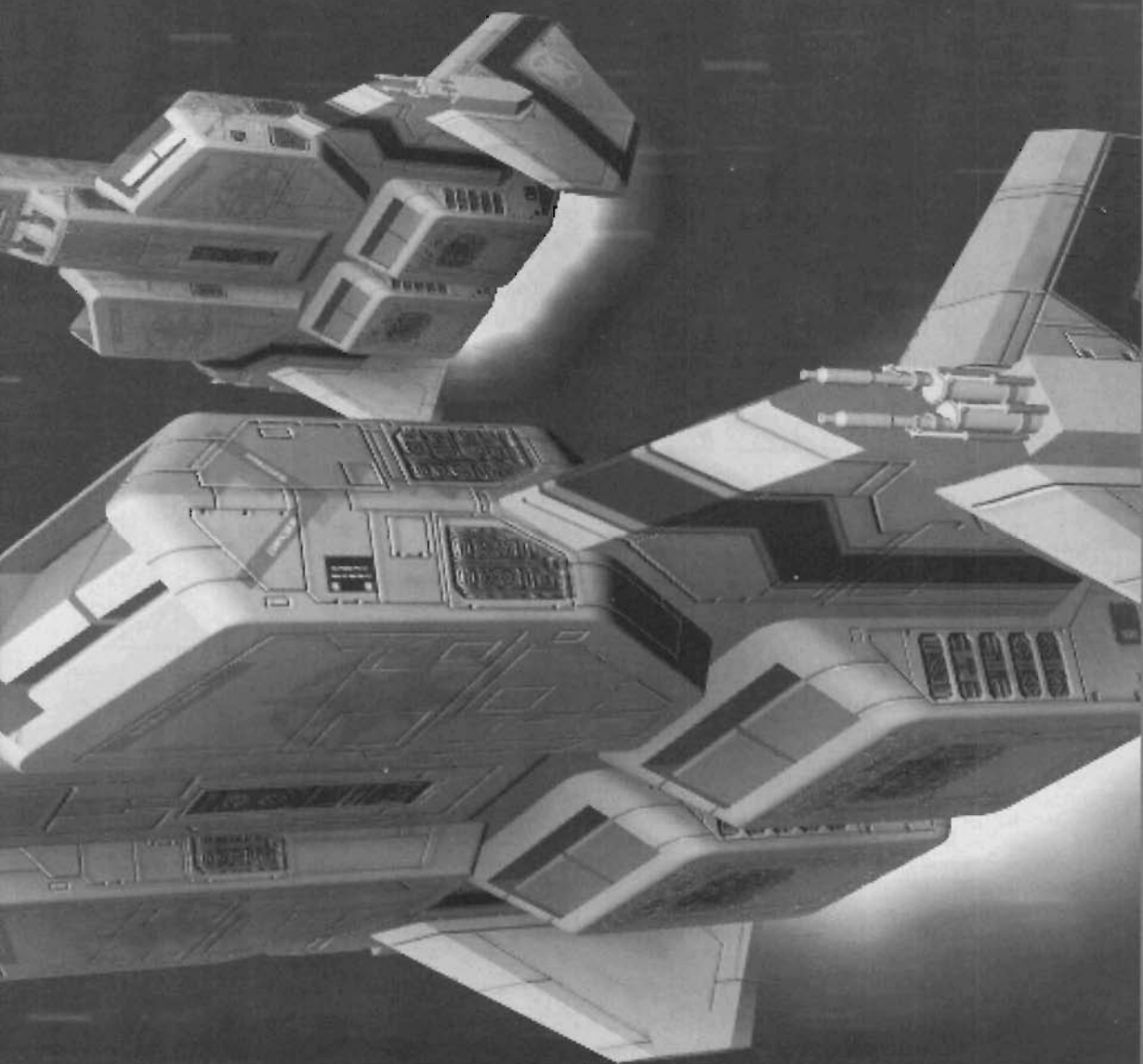
MISSION ANALYSES

Wing Commander III consists of 16 series of missions, and each series has two to four missions. Every mission has certain objectives that must be accomplished to tally a win — destroying enemy fighters, protecting friendly transports, defending the *Victory*, etc. To win an entire series, you must win every mission in that series that has a plot-critical objective (listed under **Success** in each mission analysis).

Some series have optional missions that don't count toward winning the series, but that involve a decision on your part. For instance, you have to choose whether or not to chase after one of your wingman when she decides to go on a vigilante mission of her own. Similarly, you have the option of accepting or declining Flash's simulator challenge. Although you're not required to, flying an optional mission often affects morale (but doesn't always improve it).

MISSION DESIGNATIONS

Each series in the game takes place in a different area of the galaxy. Between series, you'll see the *Victory* and its complementary fleet jump to a new location. Look for the name of the new system at the end of the jump sequence—this lets you know where to look for specific information about missions in that series.

The following table gives three-letter abbreviations for each series. You'll find these used throughout the book, especially in the mission-by-mission walkthroughs.

The identification system is easy. The second Orsini Sector mission appears as ORS-2, the third as ORS-3, and so on.

Location	Abbreviation	Code*	Max # Missions
Orsini Sector	ORS	A	4
Tamayo Sector	TAM	B	3
Locanda Sector	LOC	D	3
Blackmane Sector	BLK	E	3
Ariel System	ARI	G	3
Caliban Nebula	CAL	H	3
Torgo System	TOR	J	3
Loki VI (*Operation Behemoth*)	LOK	K	3
Alcor Sector	ALC	L	4
Freya Sector	FRY	M	3
Hyperion Sector	HYP	N	3
Kilrah	KIL	P	3
Tamayo Sector (losing path)	TAM/L	C	3
Blackmane Sector (losing path)	BLK/L	F	3
Delius Asteroid Belt (losing path)	DEL/L	I	3
Proxima Sector (losing path)	PRX/L	R	2
Simulator Missions	SIM	—	10

* *Press* [Alt] [V] *during spaceflight to display the version number and mission code. For example, MISNA001 refers to ORS-1.*

MISSION FLOWCHART

The following flowchart describes the series progression of the game. The conditions listed to the side of the boxes refer to the crucial missions in that series. "Lose 3," for example, means that losing Mission #3 takes you off the winning track (left column of the page).

ORS 1-4 → *Lose 3 or 4*

TAM 1-3[2] → *Win 2*

¹TAM/L 1-3[2] → *Lose 2* → PRX/L 1-2 → ✳

LOC 1-3[2] → *Lose 2*

BLK 1-3[3] → *Win all three*

BLK/L 1-3 → *Lose any* → PRX/L 1-2 → ✳

ARI 1-3 → *First loss*

CAL 1-3[1] → *Win 2 and 3*

DEL/L 1-3 → *Lose 2 or 3* → PRX/L 1-2 → ✳

TOR 1-3

✳ → LOSING ENDGAME —YOU DIE

LOK 1-3 → *Chase Thrakhath* → STRANDED IN SPACE— CREDITS

ALC 1-4 → *Lose 4* → PRX/L 1-2 → ✳

FRY 1-3 → *Lose 3*

HYP 1-3 → *First loss*

KIL 1-3 → *First loss*

WINNING ENDGAME— MELEK SURRENDERS

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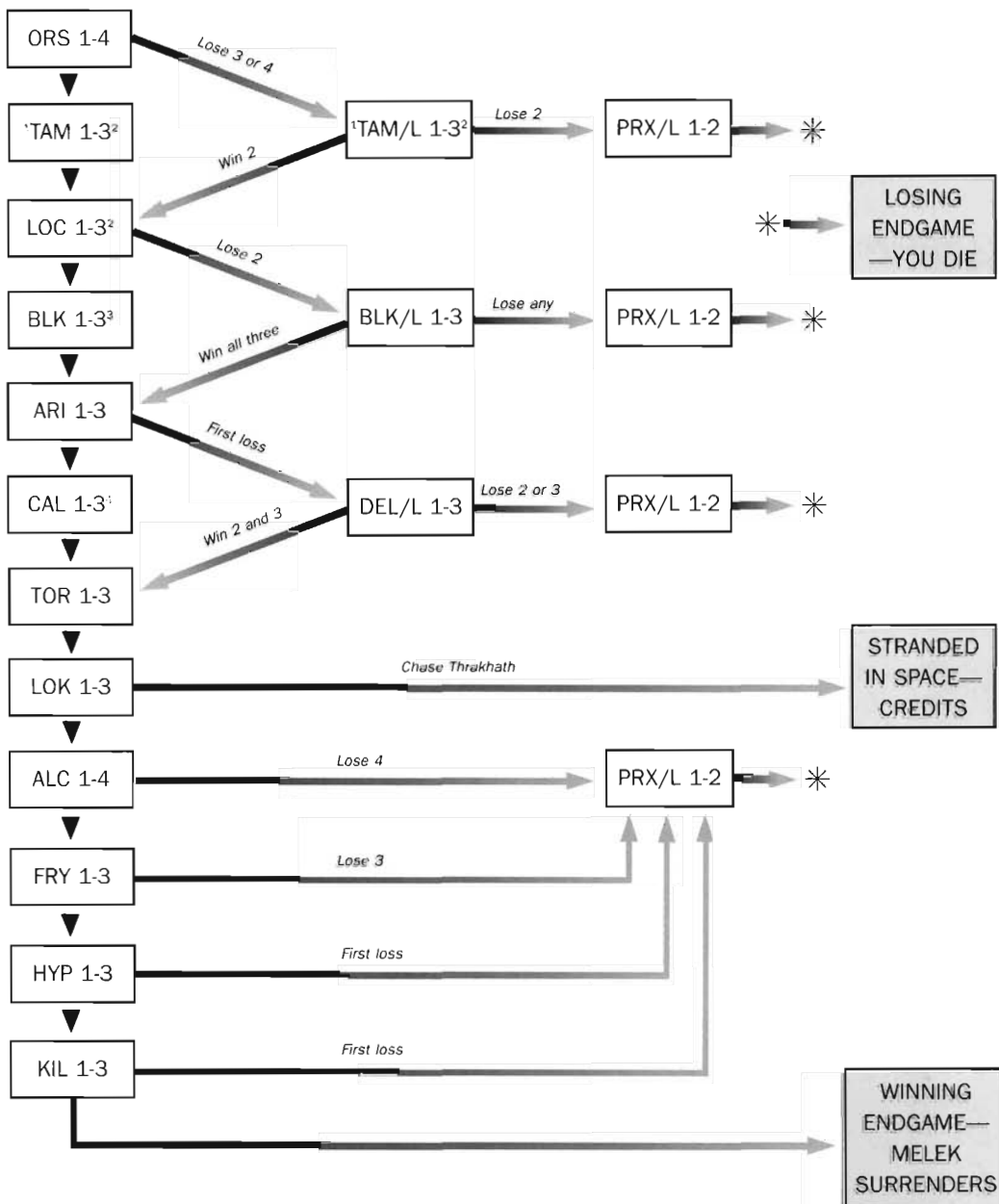
1. If the *Victory* dies, the game is over.

2. Mission 3 is optional.

3. If you lose BLK 1, you go directly to ARI 1.

4. If you lose CAL 1 or 2, you go immediately to TOR 1.

WINNING AND LOSING TRACKS

If you stay on the winning track, you'll fly 12 series and up to 37 missions. Losing track missions appear with "/L" at the end of the series designation.

Winning Track Series   ORS, TAM, LOC, BLK, ARI, CAL, TOR, LOK, ALC, FRY, HYP and KIL.

Losing Track Series   TAM/L, BLK/L, DEL/L and PRX/L.

Falling onto the losing track doesn't cause you to automatically lose the game. If you're on the winning track before TOR and lose, you still have a chance to battle your way through a losing series (TAM/L, BLK/L or DEL/L) and jump back onto the winning track. (After this, losing any critical mission sends you to Series PRX/L, the Kilrathi invasion of Earth.)

Of course, if you lose one or more critical missions in Series TAM/L, BLK/L, or DEL/L, you're on track for the losing endgame.

MISSION SPECIFICS

PRE-MISSION GAMEFLOW INFORMATION

The "pre-mission" section lists who you can talk to between missions and whether or not those conversations affect morale. The chart below gives two-letter abbreviations that are used to tell you where to find characters between missions:

Room Abbreviations

Gunnery Control	GC	Bridge	BG
Flight Deck	FD	Barracks	BK
Flight Control	FC	Lift	LF
Rec Room	RR	Depot	DP

The example on the next page, and the paragraphs following it, give you valuable information about the gameflow scenes between missions.
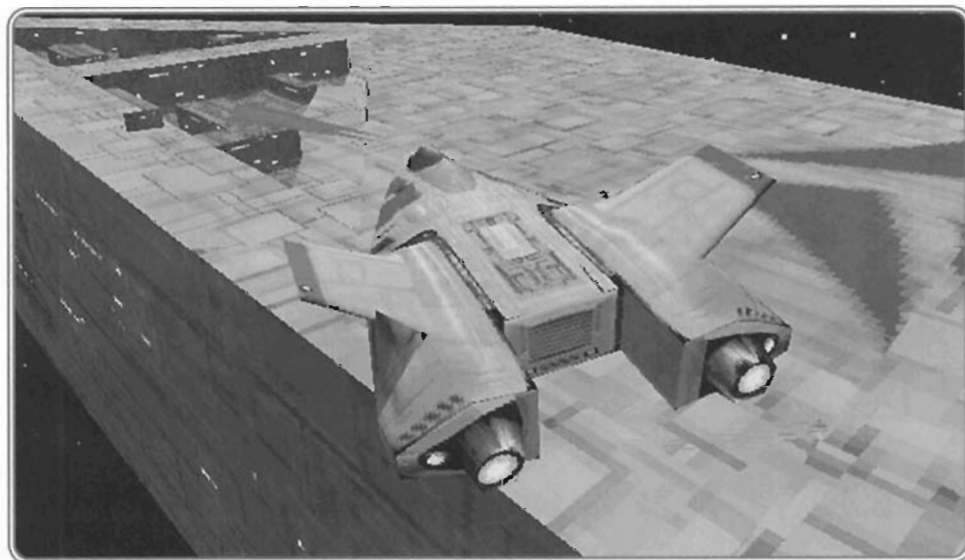
EXAMPLE

Conversations   Cobra (BK), *Rollins* (LF), **Flint** (GC)

New Morale Conversations

Rollins (LF)	*Play along with him.*	+1 (Ship)
	This guy's a loon.	–1 (Ship)
Flint (GC)	*She has a point.*	+1
	Tough luck — I'm the boss here.	–1

Other New Movies

Cobra (BK)   TAM-1 through TAM-3

EXAMPLE EXPLANATIONS

Conversations   Cobra (BK), *Rollins* (LF), **Flint** (GC)

Indicates who you may talk to, and where. This example says that you can talk with Cobra in the Barracks, Rollins in the Lift and Flint in Gunnery Control.

Italic conversation entries, such as *Rollins* (LF), indicate that this conversation affects ship morale by one point (unless noted otherwise). Bold conversation entries, such as **Flint** (GC), indicate that this conversation affects character morale by one point (unless noted otherwise) for that character. Some conversations affect both character and ship morale, and are indicated by bold, italic entries.

The following entry tells what responses elicit what morale changes:

New Morale Conversations

Rollins (LF)	*Play along with him.*	+1 (Ship)
	This guy's a loon.	–1 (Ship)
Flint (GC)	*She has a point.*	+1
	Tough luck — I'm the boss here.	–1

Every morale conversation has two possible responses. When you choose one or the other, you raise or lower character and/or ship morale. The first time each morale conversation becomes available, the two responses and their associated effects are listed in this section. In this example, you can influence Flint's morale by talking to her in Gunnery Control. If you choose "She has a point," you'll raise her morale by 1. Selecting "Tough luck — I'm the boss here," on the other hand, lowers her morale by 1.

Except where noted, all morale listings are for character morale. Changes in ship morale are indicated by "+1/-1 (Ship)." In this example, the conversation with Rollins affects ship morale.

Other New Movies   Cobra (BK)   TAM-1 through TAM-3

Not all conversations in the game require responses. In fact, the majority of the movies are "click and play" scenes that occur when you choose to talk to someone. The first time a new movie appears, it's listed in this section. This entry also tells how long that conversation is available. In this example, you can talk to Cobra just before Tamayo Mission 1 (TAM-1). If you choose not to talk then, she'll also be there before TAM-2 and TAM-3. After that point, the conversation will no longer be available.

MISSION RECOMMENDATIONS

In each mission, we describe the objective of the mission by giving a short briefing. Then, we make ship and wingman recommendations based on our playtesters' strategies. In some cases, we even suggest alternate weapon loadouts based on the preferences of ORIGIN playtesters. Note that the listed loadout (if present) is for the recommended ship and is different than that ship's default loadout.

All these entries are listed under the *Mission* section.

Example

Briefing	In this mission, you must escort a transport to a jump point. The Kilrathi will be testing their experimental Skipper missile on your transport.
Wingmen	Flash, Flint, **Hobbes** / Vaquero
Ships	*Arrow, **Hellcat***
Rec. Loadout	Change out IR missiles for HSs

Each mission has a different set of objectives — in *Wing Commander III*, you'll be required to clear out enemy fighters, protect transports, and attack enemy capital ship positions, along with an array of other objectives. Pay close attention to Eisen's briefings, because he always tells you exactly what you need to do to win the mission. A good strategy for ensuring that you win the mission is to check the nav map (press N) at each nav point. The text box for each nav point gives specific information about what needs doing in each area.

Wingmen   Flash, Flint, **Hobbes** / Vaquero

The wingmen entries indicate what wingmen are available for that mission. Some pilots are "invulnerable" because they must be available until a certain point in the plot. Past these points, each pilot becomes "vulnerable" and can die. Until that point, they *cannot* die, regardless of how much damage the Kilrathi inflict. One effective wingman strategy is to select only invulnerable pilots. However, a vulnerable pilot is often the best wingman for the job. It's your call — do you fly with a pilot you know will live to fly again, or do you take the best available pilot, regardless?

Invulnerable pilots that you can fly with are listed before the slash (/). Vulnerable pilots are listed after the slash — in this example, only Vaquero is vulnerable. The bold pilot — **Hobbes** in this example — is the pilot recommended for that mission.

Ships   *Arrow, **Hellcat***

This line lists the ships available in the Loadout Terminal. The bold ship is the one recommended for that particular mission. Keep in mind that you'll need torpedoes for missions against carriers, or for missions where time is critical and you have to destroy capital ships. Likewise, remember that the *Arrow* is the fastest ship and that its slide capabilities can make attacking small cap ships and fighters easier.

Rec. Loadout   Change out IR missiles for HSs

When it appears, the recommended loadout line gives playtester recommendations on how to outfit your ship for that mission. Here, you would be well-advised to scrap your IR missiles and load up your hardpoints with HS missiles instead. Don't look for this line in every mission — it's only included where we strongly recommend stocking up on certain weapons. Meanwhile, find your preference and stick with it.

SHIPS ENCOUNTERED

A quick reference chart (usually at the bottom of the first page of each new mission) provides a summary of what you'll find in each area (including waves of enemies). Each major column in this chart shows what enemies to expect at a given nav point. The individual columns under each nav listing show what to expect in each wave that attacks you at that nav point.

NAV POINT DETAILS

The text description for each nav point or invisible action area lists what you'll find when you first arrive. Consecutive waves of enemies, along with the conditions for their arrival, are also described.

Friendly and enemy ships at each nav point are listed in chronological order in the checklists. If an enemy is a Veteran-level pilot or a named Ace (see **Skill Levels**, p. 64), its AI level appears in parentheses following the ship name. Most enemy fighters you'll face have Normal skills, but their skill levels can change when you adjust the game difficulty.

NAV MAP

Along with each mission, you'll find a map that gives the position of all nav points relative to one another. (Keep in mind that the actual game map is 3-dimensional. The maps given here are specifically for referencing nav and fleet positions.) Areas visible on your navigational map are labeled Nav 1, Nav 2, etc. These labels correspond to those in the quick reference chart and in the text descriptions.

Note that not all action areas appear on the nav maps you can pull up during the game. These "invisible" nav points are designated by Inv 1, Inv 2, etc., and fall between normal navigational points. You may or may not encounter them. Their appearance is sometimes triggered when you vary from the mission flight path or travel too far out from a regular nav point.

ANALYSIS

After the mission checkpoints, you'll find out exactly what you have to do to win (or fail) each mission. And just in case you can't get past a particular point, we've included tips from our playtesters to help you successfully complete the mission objectives.

MISSIONS AND DISCS

Disc	Winning Missions	Losing Missions
Disc 1*	ORS-1 to LOC-3	TAM/L 1-3
Disc 2*	BLK-1 to TOR-1	BLK/L 1-3, DEL/L 1-3
Disc 3*	TOR-2 to ALC-4	—
Disc 4*	FRY-1 to Winning Endgame	PRX/L 1-2, Losing Endgame

* Each disc contains all ten simulator missions (SIM 1-10).

ORSINI SECTOR

The war is going badly, and you're assigned to an older carrier, the TCS *Victory*, under the command of Captain William Eisen. Now that you're in command of a fighter group, you're responsible for assigning routine patrol and cargo escort missions to your pilots. Aboard the *Victory*, you meet new pilots and several old acquaintances, including Hobbes. Your first assignment as CFG (Commander Fighter Group) on the *Victory* is to assign your pilots and fighters to a patrol and sweep of Orsini Sector.

ORSINI MISSION 1 (ORS-1)
GAMEFLOW

Conversations   Hobbes (FC), Maniac (BG), Rachel (FC)*, *Rollins* (LF), **Vagabond** (RR)

New Morale Conversations

Rollins (LF)	*Play along with him.*	+1 (Ship)
	This guy's a loon.	−1 (Ship)
Vagabond (RR)	*He's got a point.*	+1
	What's he hiding?	−1

Other New Movies

Hobbes (FC)	ORS-1 through ORS-2
Maniac (BG)	ORS-1 through ORS-3
Rachel (FC)	ORS-1 through ORS-4*

* After every mission briefing, Rachel appears by the Loadout Terminal in Flight Control. Also, practically every time you land, Rachel will have something to say to you on the Flight Deck. These conversations won't be listed in later missions.

MISSION

Briefing	Make a three-area sweep and destroy any Kilrathi fighters you find.
Wingmen	**Hobbes** (only choice)
Ships	*Hellcat* (only choice)

SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)	C (Nav 3)
Darket	2		2
Dralthi			
Strakha			
Vaktoth			
Paktahn			

Takeoff
- O Autopilot.

(A) Nav 1
- O 2 *Darket*.

(B) Nav 2
- O Clear.

(C) Nav 3
- O 2 *Darket*.

(C) Nav 3

(B) Nav 2

(A) Nav 1

Takeoff
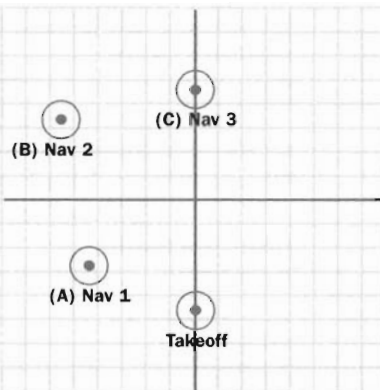
Success
- O Destroy at least 3 *Darket*. Go to Mission ORS-2.

Failure
- O Go to Mission ORS-2.

ANALYSIS

- Before you autopilot from the *Victory*, redistribute your power. If you've got good aim, allocate the majority of power to your weapons and lower engines, damage repair and shields. If you're new to the game, increase your shield and damage settings and decrease engines and weapons.

- At Nav 1, set Hobbes free to *Break and attack*, then take out the *Darket* with full guns, or by wearing out their shields with the guns and then popping them with an IR missile. (HS missiles will also work, especially if you've already tagged the rear shields.)

- If you're having trouble staying with the *Darket*, use Y and occasionally afterburn. Take them on head-on if you want to—your shields are better than theirs.

In one of the more macabre touches to an already brutal war, the Hispania freighter *Loa* recovered a Confederation fighter adrift in the Veronica sector, its pilot ritually executed by the Kilrathi before being strapped into the cockpit and cast into space. The fighter was immediately confiscated by the Confederation Intelligence Department, but crewmembers reported that Kilrathi symbols had been painted across the fighter's hull in its pilot's own blood, while those who saw the body indicated that it had been literally ripped to shreds.

Linguistics specialists at the University of Hawaii on Earth have made progress in deciphering the intricacies of the Kilrathi language and have begun publishing their research in leading journals. While Confederation Intelligence is rumored to be adept at both the decryption and translation of Kilrathi signals, civilian research has been sharply restricted.

We'll have further reports as they become available. Information is the blood of free society. Good evening.

PLAY

PAUSE

REWIND

SCAN

DELETE

TNC NEWSBRIEF TEXT FEED

ORSINI MISSION 2 (ORS-2)

GAMEFLOW

Conversations   Cobra (BK), Hobbes (FC), Maniac (BG), *Rollins* (LF), **Vagabond** (RR), **Vaquero** (RR)

New Morale Conversations

Vaquero (RR)   *Sounds good to me.*   +1

                 He's not focused.   −1

Other New Movies

Cobra (BK)   ORS-2

MISSION

Briefing   Sweep three areas. This mission is similar to ORS-1, but you will encounter a wayward Kilrathi logistic hull with a few escorting light fighters.

Wingmen   **Cobra**, Hobbes, Maniac, Vagabond, Vaquero

Ships   ***Arrow***, *Hellcat*, *Thunderbolt*

SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)	C (Nav 3)
Darket		2	2
Dralthi			
Strakha			
Vaktoth			
Paktahn			
Transport			1

Takeoff
- ○ Autopilot.

(A) Nav 1
- ○ Clear. Proceed to next Nav point.

(B) Nav 2
- ○ 2 *Darket*.

(C) Nav 3
- ○ 2 *Darket*, 1 enemy transport.

Nav map showing: (C) Nav 3, (B) Nav 2, (A) Nav 1, Takeoff.
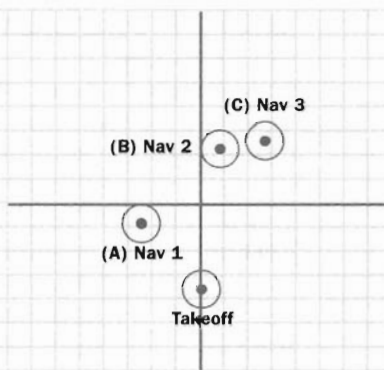
Success
- ○ Destroy all *Darket*. (You must destroy all of them to receive the MISSION ACCOMPLISHED message.) Go to Mission ORS-3.

Failure
- ○ Go to Mission ORS-3.

ANALYSIS

- You don't have to take out the transport. But if you want to anyway, activate full guns and afterburn in toward the ship. Aim for the turrets (bracketed in yellow). A transport has two turrets, and once you take them out the ship is defenseless. For the killing blow, unleash your guns, or use a missile.

- Try to tail the *Darket* and match speed with them. Don't forget to lock onto a targeted ship — this activates your I.T.T.S. targeting system. Aim for the green sight to hit the locked ship.

. . . according to pilots in numerous sectors, the Kilrathi have ceased the time-honored practice of taking ejected pilots prisoner by plucking them out of space's vacuum and tractoring them aboard support ships. Instead, they have been firing on the defenseless fliers, murdering them in cold blood . . .

PLAY
PAUSE
REWIND
SCAN
DELETE

TNC NEWSBRIEF TEXT FEED
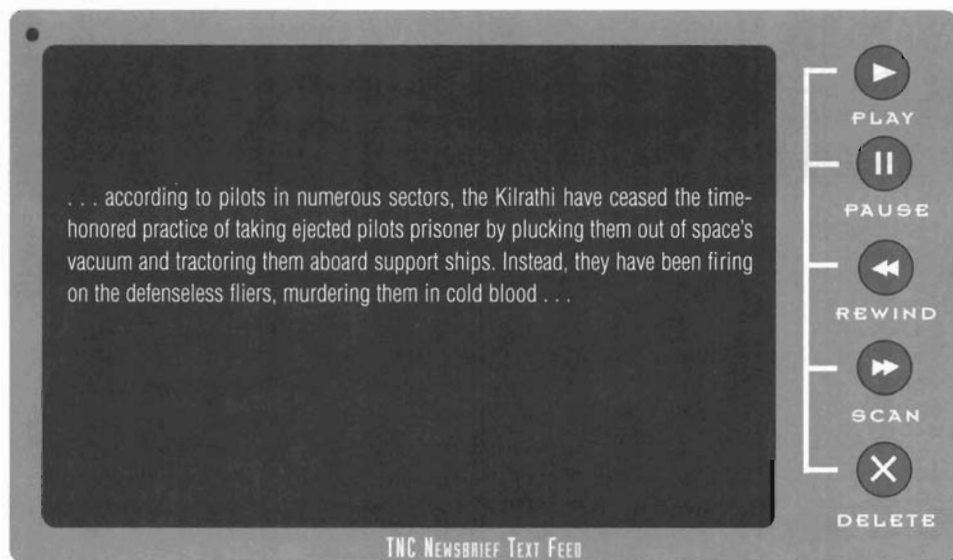
ORSINI MISSION 3 (ORS-3)
GAMEFLOW
Conversations   Maniac (BG), Rachel (RR), *Rollins* (LF), **Vagabond** (RR), **Vaquero** (RR)
Other New Movies
Rachel (RR)   ORS-3 through ORS-4

MISSION
Briefing   You must escort a cargo ship from Nav 1 to a jump point at Nav 3. Your mission is to destroy any Kilrathi fighters you run across and protect the cargo ship at all cost.
Wingmen   Cobra, Hobbes, Maniac, Vagabond, **Vaquero**
Ships   *Arrow*, Hellcat, Thunderbolt

SHIPS ENCOUNTERED

	A (Nav 1)	B (Inv 1)	C (Nav 2)	D (Nav 3)	
Darket	2			2	2
Dralthi	1				
Strakha					
Vaktoth					
Paktahn					
Corvette			1		

Takeoff
- ◯ Link with friendly transport (fly near it).

(A) Nav 1
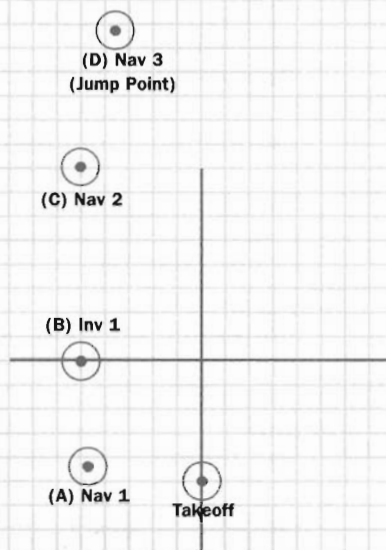- ◯ Clear. Proceed to next nav point.

(B) Inv 1
- ◯ 2 *Darket*, 1 *Dralthi*.

(C) Nav 2
- ◯ 1 corvette (no need to destroy), 2 *Darket*.

(D) Nav 3 (Jump Point)
- ◯ 2 *Darket*.
- ◯ 2 *Darket* destroyed > 2 more appear.
- ◯ Wait for transport to jump.
- ◯ Autopilot back to the *Victory*.

(D) Nav 3
(Jump Point)

(C) Nav 2

(B) Inv 1

(A) Nav 1   **Takeoff**

Success
- ◯ Safely escort the cargo ship to the jump point, keeping it intact, and then watch it jump out. Go to Mission ORS-4.

Failure
- ◯ Go to Mission ORS-4, then to TAM/L-1.

ANALYSIS

- As soon as you see the transport, do a fly-by to establish contact with it. Otherwise, it won't autopilot with you, and you'll fail the mission.

- Stick close to your transport—the Kilrathi fighters are way more interested in destroying it than you.

- The corvette at Nav 2 can be fatal if you don't avoid its turrets. The best way to take out the corvette is to position your ship behind it (about 10,000 kilometers out) and match its speed. This is just out of its gun range, and you'll be safe. Then, afterburn straight toward the center rear super-turret. You'll definitely want to take this one out first.

- Once the center turret is gone, stick as close as possible to the corvette's rear. If you're positioned right, the top and bottom turrets can't shoot you — the angle's too steep. If your speed is constant, you can pitch up and down and take out the turrets (two on top, two on bottom). Then, it's a turkey shoot with full guns.

- Don't forget to afterburn away once you hear the death cry of a capital ship. It's about to blow, and you'd better get out before your ship is damaged.

ORSINI MISSION 4 (ORS-4)

GAMEFLOW

Conversations	Flint (GC), Maniac (BG), Rachel (RR), *Rollins* (LF), **Vagabond** (RR), **Vaquero** (RR)

Flint (GC)	*She has a point.*	+1
	Tough luck — I'm the boss here.	−1
(In-Flight)	*Destroy Skipper missile.*	+2 (Ship)
	Let Skipper hit transport.	−4 (Ship)

MISSION

Briefing	In this mission, you must escort a transport to jump point. The Kilrathi will be testing their experimental Skipper missile on your transport.
Wingmen	Cobra, Flint, Hobbes, **Maniac**, Vagabond, Vaquero
Ships	*Arrow*, Hellcat, Thunderbolt
Rec. Loadout	Change HS to IR missiles.
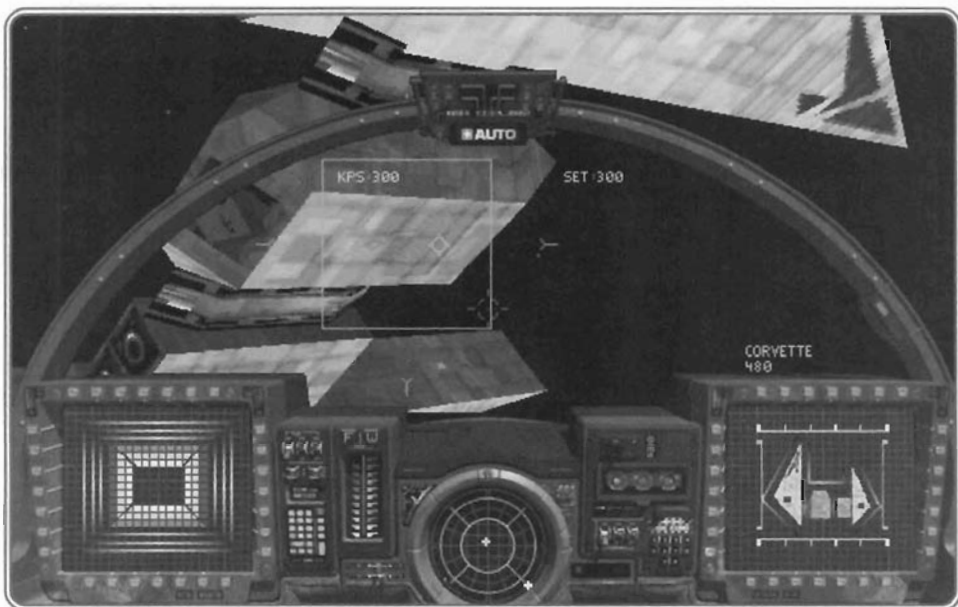
SHIPS ENCOUNTERED

	Takeoff	A (Nav 1)	B (Inv 1)	C (Nav 2)	D (Nav 3)	(E) Inv 2
Darket	4	2			2　　2	
Dralthi			2			2
Strakha						
Vaktoth						
Paktahn						
Corvette			1			2

Takeoff
- ○ Autopilot

(A) Nav 1
- ○ 4 *Darket*.
- ○ 4 *Darket* destroyed > 2 more appear.

(B) Inv 1
- ○ Defend transport against test run of the Kilrathi Skipper missile.
- ○ 2 *Dralthi*, 1 corvette (with 1 Skipper missile).
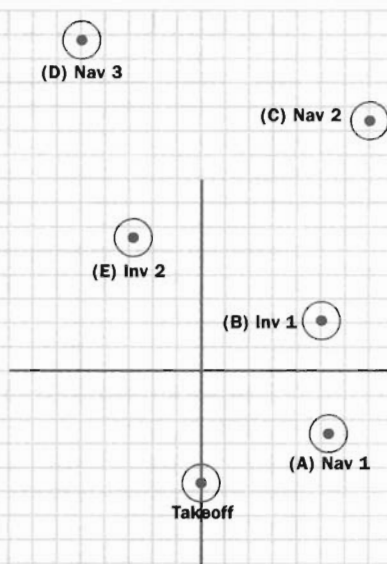- ○ Link with transport.

(C) Nav 2
- ○ Clear. Proceed to next nav point.

(D) Nav 3
- ○ 2 *Darket*.
- ○ 2 *Darket* destroyed > 2 more appear.
- ○ Watch transport safely jump out.
- ○ Autopilot back to the *Victory*.

(E) Inv 2
- ○ 2 corvettes, 2 *Dralthi* (only if transport died earlier).

(D) Nav 3

(C) Nav 2

(E) Inv 2

(B) Inv 1

(A) Nav 1

Takeoff

Success
- ○ Defend the transport until it jumps out. If you won ORS-3, go to TAM-1. If you lost ORS-3, go to TAM/L-1.

Failure
- ○ Go to Mission TAM/L-1.

Plot Paths
- ○ Win ORS-3 *and* ORS-4 > go to TAM-1.
- ○ Lose ORS-3 *or* ORS-4 > go to TAM/L-1.

ANALYSIS

- Change out HS missiles for IR missiles. You don't have time to wait for the optimal HS shot.

- Set and lock your engine power to 25%, the minimum necessary to attain full speed. All that higher engine power does is speed up your acceleration time. Give more power to weapons and less to damage (if your ship's in good shape).

- At Nav 1, rendezvous with the transport or you'll fail the mission.

- Send your wingman after the corvette.

- While waiting for the Skipper missile, shoot half your IR missiles off at fighters. They'll take care of the enemy ships, while you go after the Skipper.

- To hit the Skipper, afterburn toward the corvette, pull a 180-degree turn and get behind the Skipper. Afterburn in short spurts to stay around 600 kps (this matches the speed of the missile). When the missile cloaks, use [T] to quickly cycle through targets and find it again. It will always make a beeline for the transport.

- Don't try ramming the Skipper missile.

TAMAYO SECTOR

Jace "Flash" Dillon, a test pilot recently transferred from Vega Sector Research and Development, arrives on the *Victory* with a prototype version of the *Excalibur* heavy fighter. He exhibits all the behavior of a hair-on-fire test pilot — cocky, self-centered, overconfident, and marginally insubordinate—even Maniac comments on his brash attitude. Over a series of missions, Flash refuses to fly his *Excalibur* when Kilrathi fighters threaten the *Victory's* survival.

Meanwhile, the *Victory* is sent to Tamayo in a defensive move to interrupt Kilrathi operations there. You and your pilots face a tough series of patrol, escort, defensive and offensive missions.

TAMAYO MISSION 1 (TAM-1)
GAMEFLOW
Conversations   Eisen, Hobbes (BG), **Flash** (FD), *Flint/Maniac (GC)*
New Morale Conversations

Flash (FD)	*That's true.*	+1, −1 (Ship)
	This kid's a smartass.	−1, +1 (Ship)
Flint/Maniac (GC)	*They're right.*	+1 (Ship)
	Play it by the book.	−1 (Ship)

Other New Movies

Eisen, Hobbes (BG)   TAM-1

Note: If you've looked at the hologram in your locker, you can now look at Angel's picture.

MISSION
Briefing   In this mission, you don't search out the Kilrathi — they come to the *Victory*. Enemy fighters will swarm and attack the carrier. This will result in the *Victory* leaving the system and failing the mission unless you destroy most of the attackers.
Wingmen   No choice (scramble mission)
   Note: You don't get to choose your wingman here—all pilots are deployed during an emergency scramble.
Ships   **Arrow**

SHIPS ENCOUNTERED

	Takeoff			
Darket	2	2	2	
Dralthi			2	
Strakha				
Vaktoth				
Paktahn	2	2	2	2

Takeoff
>) 2 *Darket*, 2 *Paktahn*.
>) Previous wave destroyed > 2 more waves appear.
>) Third wave destroyed > 2 *Dralthi*, 2 *Paktahn*.

Takeoff
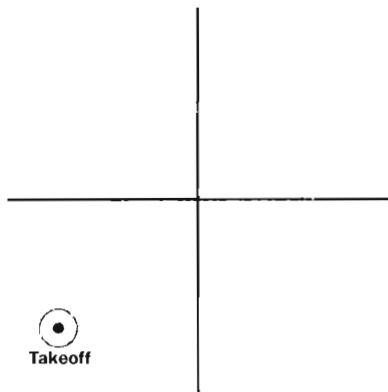
Success
○ Destroy all enemy fighters. Go to Mission TAM-2.

Failure
○ Die and view your funeral.

ANALYSIS

- If you're an expert flier, leave the *Darket* and attack the *Paktahn* first. The light fighters will try to distract you, allowing the bombers to sneak in and attack the carrier. Once you've taken out the bombers, your fleet is fairly safe.

- If you're a novice and would rather take on light fighters, let your wingmen soften up the *Paktahn* first. Then, go in for the kill you'll get the credit, but not the damage taken by your wingmen.

- Be wary of the highly accurate rear turrets on the *Paktahn*. When fighting them, position your ship behind them and slide back and forth and shoot your guns. Or, go head-on, then break to one side and slide before shooting.

- Fire 2 IR missiles at each *Paktahn*. Or, if you can launch behind them, use a Heat Seeker.
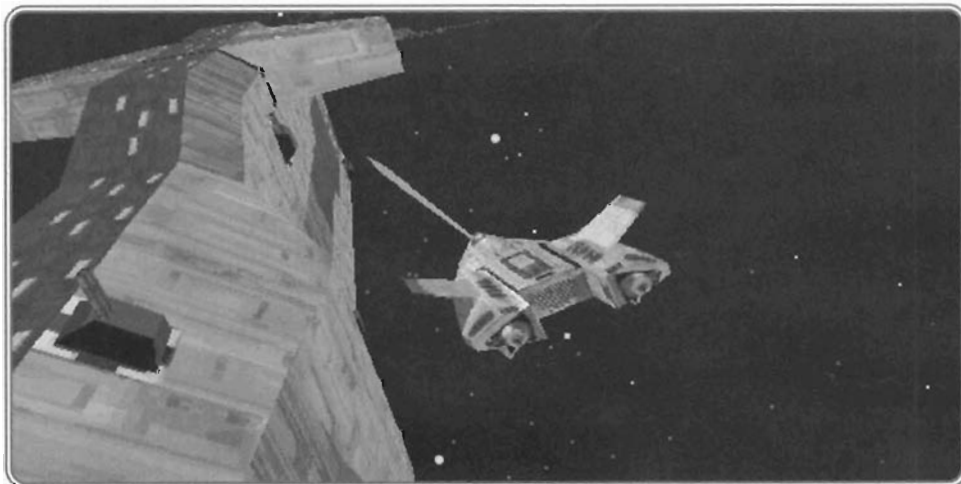
TAMAYO MISSION 2 (TAM-2)

GAMEFLOW

Conversations Flash (BK), **Rachel** (RR)

New Morale Conversations

| Rachel (RR) | Wow! I'd love to fly that ship. | +1 |
| | Stay clear of trouble... | −1 |

Other New Movies

Flash (BK) TAM-2

MISSION

Briefing The Kilrathi mount a second wave in their attack on Tamayo system, striking the planet Tamayo II. The attack fleet includes a large number of enemy transports guarded by Kilrathi fighters. If you allow the transports to reach the planet, you lose. You have to punch through heavy fighter cover and open the transports up to attack by the *Victory* and additional fighter groups.

Once you clear a path, the *Victory* launches three intercept groups. Your group is directly responsible for eliminating fighters at Nav 1. Then, you must continue your sweep of all remaining nav points. Destroy any enemy transports you see.

Note: Once again, you don't get to choose your wingman.

Wingmen **Hobbes** and **Flint** (automatically assigned as your wingmen)

Ships *Arrow, Hellcat, Thunderbolt, Longbow,* **Excalibur***

* Only available if you talked to Rachel in the Rec Room and said you'd love to fly the Excalibur.

Rec. Loadout Trade out HS missiles for IRs

SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)
Darket	4	
Dralthi		4
Strakha		
Vaktoth	4	
Paktahn		
Corvette	1	
Transport		4

(B) Nav 2 •

Takeoff

O Autopilot.

(A) Nav 1

• (A) Nav 1

O 4 *Vaktoth*, 1 enemy corvette.

O 4 *Vaktoth* destroyed > 4 *Darket*.

O 4 *Darket* destroyed > 4 *Dralthi*.

(B) Nav 2

O 4 enemy transports.

O Autopilot back to the *Victory*.

•
Takeoff
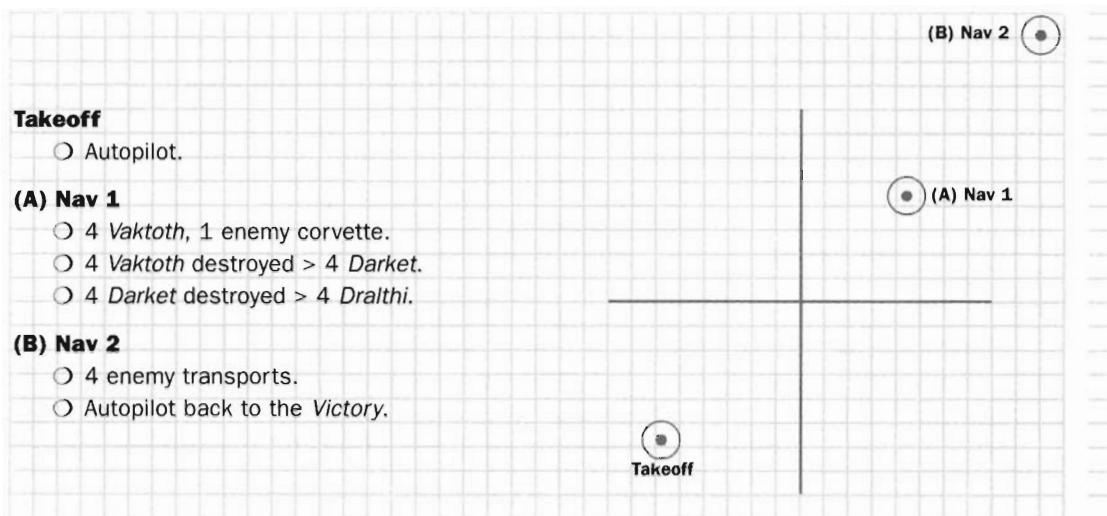
Success

O Destroy 3 out of 4 transports attacking Tamayo II at Nav 2. Go to Mission TAM-3 (if you accept Flash's challenge) or Mission LOC-1.

Failure

O Go to Mission LOC-1.

ANALYSIS

• Talk to Flash before this mission, then to Rachel. She offers you a "joyride" in the *Excalibur*, which is definitely the ship of choice anytime it's available.

• The *Vaktoth* at Nav 1 have rear turrets, so attack their side shields.

• If you took the *Excalibur*, use missiles liberally after the second wave — it carries a load of them, and one or two missiles can easily take out a *Darket*.

• At Nav 2, you shouldn't have any problem taking out the four transports. Assign your wingmen to one, then take on a second one yourself. You can take out the turrets first and then shoot at will, or try evading their turret fire. Missiles work well if you don't want to risk going in with your guns. Transports have pretty weak shields, and it won't take long to knock them out.

TAMAYO MISSION 3 (TAM-3)
GAMEFLOW
Conversations   *Flash* (**FD**, also FC if you accept Flash's challenge), Eisen (FC, if you accept Flash's challenge)

New Morale Conversations

Flash (FD)   *This punk's not worth it.*   +1, −1 (Ship)

   Time to teach this punk a lesson.   −1, +1 (Ship)

Other New Movies

Eisen (FC)   TAM-3

MISSION (OPTIONAL)
Briefing   As squadron commander, you call Flash down for being a prima donna hot-shot who refuses to follow orders, and you agree to a challenge in the simulator at high noon to see who has his hand on the biggest stick.

Wingmen   None (Simulator mission)

Ship   *Arrow*

(*Simulator*) Takeoff
   ○ Fly against Flash (who's flying an *Arrow*).

Success
   ○ Beat Flash in the simulator. Go to Mission LOC-1.

Failure
   ○ Go to Mission LOC-1.

Plot Paths
   Win or lose TAM-3 > go to Mission LOC-1.
   Refuse Flash's challenge > go directly to Mission LOC-1.

ANALYSIS
- You definitely want to accept Flash's challenge. This both raises ship morale and lowers his morale. If you win, ship morale rises by 2. If you lose, however, ship morale drops by 4.

- To beat Flash, immediately activate full guns and arm a full salvo of missiles. Get behind him and let all your missiles fly. If this doesn't work, you'll have to dogfight him. He's quick, and you'll have to afterburn after him. Allocate more power to shields and weapons if he starts taking head-on passes.

LOCANDA SECTOR

The *Victory* is sent to the Locanda worlds in response to a stiff Kilrathi presence there. Once there, scout ships discover a Kilrathi Recon In Force (RIF) group operating in the sector. The *Victory* and its escorts will guard the jump point and prevent the RIF from getting away, while fighter groups patrol Locanda's other sensitive areas (planets and convoy routes).

MISSION LOC-1
GAMEFLOW
Conversations   **Cobra** (BK), Flash (FC), **Flint** (GC)

New Morale Conversations

Cobra (BK)	*She knows something.*	+1
	Ah, she's full of it.	−1
Flint (GC)	*Give her a shot.*	+1
	I can't risk it with her.	−1

Other New Movies

Flash (FC)   LOC-1 through LOC-2

MISSION

Briefing	You must fly a routine patrol mission, navigating around asteroids and clearing out all nav points.
Wingmen	Cobra, Flash, Flint, Hobbes, **Maniac,** Vagabond, Vaquero
Ships	*Arrow, Hellcat, **Thunderbolt***
Rec. Loadout	Switch out a hardpoint of default missiles for FFs.

Takeoff
- ○ Autopilot.

(A) Nav 1
- ○ Clear.

(B) Inv 1
- ○ 2 *Vaktoth.*
- ○ 2 *Vaktoth* destroyed > 4 *Dralthi.*

SHIPS ENCOUNTERED

	A (Nav 1)	B (Inv 1)	C (Nav 2)	D (Nav 3)	E (Nav 4)
Darket			3		6*
Dralthi		4		4	
Strakha			4		
Vaktoth	2				
Paktahn					
Lt. Destroyer				1	

* Including *Darket* ace, Fireclaw.

(C) Nav 2
- ◯ 3 *Darket.*
- ◯ 3 *Darket* destroyed > 4 *Strakha.*

(D) Nav 3
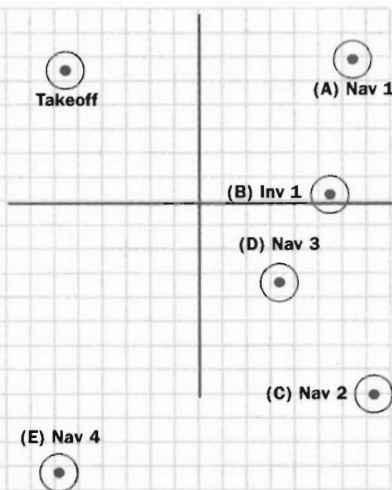- ◯ Enemy destroyer, 4 *Dralthi.*

(E) Nav 4
- ◯ 6 *Darket* (including ace, Fireclaw).
- ◯ Autopilot back to the *Victory.*

Success
- ◯ Destroy 18 Kilrathi fighters. Go to Mission LOC-2. (You must destroy *all* fighters to receive an in-flight *Mission objectives accomplished* message.)

Failure
- ◯ Go to Mission LOC-2.

Takeoff

(A) Nav 1

(B) Inv 1

(D) Nav 3

(C) Nav 2

(E) Nav 4

ANALYSIS

- Before autopiloting from the *Victory,* lock engine power at 25%, and dump the remaining power to weapons and shields.

- At Nav 2, go after the *Vaktoth* and watch out for their devastating rear turrets. Try to avoid using missiles now—save them for later in the mission.

- If you're flying a *Thunderbolt,* use your rear turrets against an enemy who is tailing you. Your auto-tailgun computer is pretty accurate—but it's a challenge to shoot down bogies with your rear guns.

- At Nav 3, freely use your FF missiles if you loaded them—they'll acquire new targets after targeted *Strakha* cloak.

- Keep moving and turning constantly with *Strakha,* because they tend to uncloak behind you.

- Target a *Dralthi* at Nav 4 and send Maniac after it and the other three while you go after the destroyer.

- Switch the majority of your power to shields before you make a torpedo run, then use your rear turret to take care of any enemies that are following you in. Then, arm your torpedoes and afterburn in toward the destroyer. When you acquire a lock, fire your torpedo. Afterburn out in a hurry after you launch it... an exploding capship can harm your ship.

- At Nav 4, go after the ace Fireclaw first in order to rack up your first ace kill. His ship has red and gold markings, and is fairly wimpy. If your wingman tries to steal your ace kill, launch your missiles to take Fireclaw out quickly. One successful HS should do the job. Since this is your last nav point, you can use up all your missiles here.

- Even though he's weak defensively, be wary of Fireclaw's offense—he'll launcn lots of missiles at you. Whenever you fight an ace, keep your finger on the E decoy button. You've got lots of them, so don't hesitate to drop them whenever you see your missile lock light on.

MISSION LOC-2

GAMEFLOW

Conversations **Cobra** (BK), Flash (FC), Hobbes (GC), **Vagabond** (RR)

New Morale Conversations

Vagabond (RR) *He might be right.*   +1

Ah, there's nothing to worry about. −1

Other New Movies

Hobbes (GC) LOC-2

MISSION

Briefing A Kilrathi destroyer is traveling through the sector, and Intel believes that the enemy plans to test its new biological weapon against a nearby planet. You must shoot down the warhead before it strikes the planet.

Wingmen Cobra, **Flash**, Hobbes, Maniac, Vagabond, Vaquero

Ships *Arrow, Hellcat, Thunderbolt*
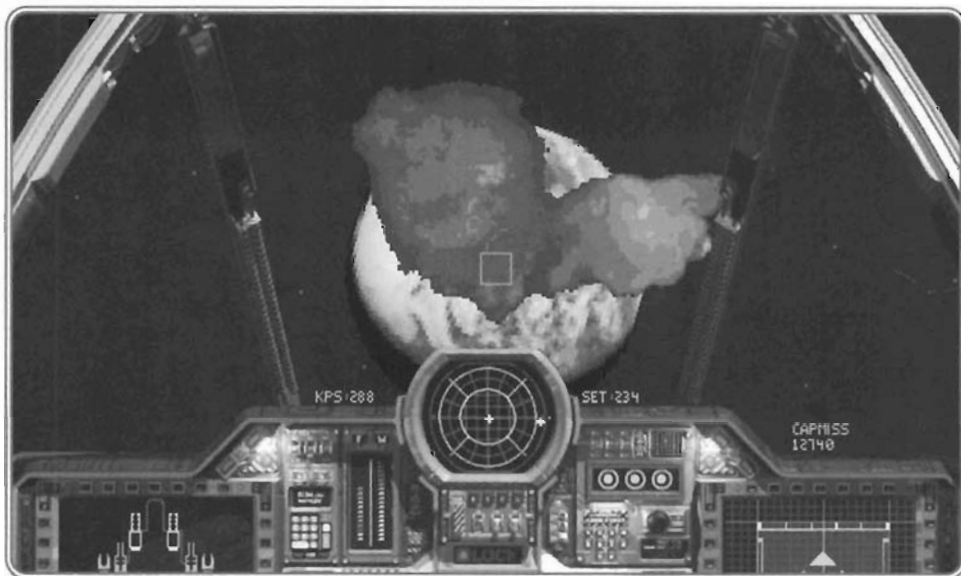
SHIPS ENCOUNTERED

	A (Nav 1)	
Darket		
Dralthi		
Strakha	4	2
Vaktoth		
Paktahn		
Lt. Dest.	1	

Takeoff

Takeoff
>) Autopilot.

(A) Nav 1
>) Enemy destroyer (with 3 bioweapon missiles),
> 4 *Strakha.*
>) 4 *Strakha* destroyed > 2 more appear.
>) Autopilot back to the *Victory.*

(A) Nav 1

Success
○ Destroy all biological weapons before impact. Go to Mission LOC-3 (decide whether or not to chase down Flint).

Failure
○ Go to Mission LOC-3 (decide whether or not to chase down Flint).

Plot Paths
If you win or lose LOC-2 and go after Flint > go to Mission LOC-3.
If you win LOC-2 and don't go after Flint > go to Mission BLK-1.
If you lose LOC-2 and don't go after Flint > go to Mission BLK/L-1.

ANALYSIS

- This is a time-critical mission with up to 3 biological missiles.

- Take the *Thunderbolt* so that you can torpedo the destroyer. Switch to your torpedoes before autopiloting to Nav 1.

- As soon as you drop into Nav 1, hit $[\sim]$ and go for the destroyer. You need to take it out first so it won't launch more than one bio–missile (it can launch up to three). Swing by the destroyer long enough to launch a torpedo, then chase down the first missile.

- To hit the biological missile, use $[T]$ to quickly cycle through targets and find it. Lock onto it, then chase it down. If you miss its initial pass by you, toggle on your afterburners and catch up with it. (This can take anywhere from 30 to 60 seconds.)

- If you don't blow up all biological missiles that are launched, you fail the mission. If you don't get the destroyer on the first run, it can launch up to three missiles.

- Don't be too quick to request clearance and land at the end of this mission. Once you radio in for a landing, Eisen asks if you'll go after Flint. If you hit autopilot (to land) too soon, you won't get the chance.

MISSION LOC-3

Note: This mission begins at the end of LOC-2, when Eisen asks you to go retrieve Flint.

New Morale Conversations

(In-Flight)	*Take the risk.* (Chase Flint.)	+1 (Ship)
	I can't risk it. (Don't chase Flint.)	−1 (Ship)

Note: To tell Eisen you're going after Flint, don't land. Instead, wait for him to jump onto the Comm. When he's through talking, bring up the Communication screen again and select GOING AFTER HER.

MISSION

Briefing   Before you land on the *Victory*, you get a call from Eisen. Flint has gone over the edge and has launched in pursuit of Kilrathi stragglers headed for the jump point. She's taken on more than she can handle, and you have to decide whether or not to help her out of her predicament. This is an optional mission, but there are morale consequences no matter what you decide. You'll have to find her (she could be in any of four areas), radio her, bring her back to her senses and get back to the *Victory*.

A secondary mission objective is to destroy any Kilrathi you encounter.

Wingmen   None (but Flint flies on your wing once you find her)

Ships   Same as LOC-2 (continued mission)

SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)	C (Nav 3)	D (Nav 4)	
Darket	4			4	4
Dralthi		3			
Strakha					
Vaktoth				2	
Paktahn					
Light Cruiser			1		

Takeoff
  ○ Decision:
    Search for Flint.
  ○ Autopilot if you
    search for Flint.
    Otherwise, land on the *Victory*.

(•)(•)(B) Nav 2
(D) Nav 4
(•)(•)(C) Nav 3
(A) Nav 1
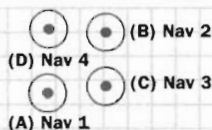
(A) Nav 1*
  ○ 4 *Darket*.
  ○ 4 *Darket* destroyed > 3 *Dralthi*.

(B) Nav 2*
  ○ Clear.

(C) Nav 3*
  ○ Clear.

(•)
Takeoff

(D) Nav 4*
  ○ Flint, enemy light cruiser (with possible damage), 4
    Darket.
  ○ 4 *Darket* destroyed > 4 more appear.
  ○ 4 *Darket* destroyed > 2 *Vaktoth*.
  ○ Autopilot back to the *Victory*.

* The location of nav points is random in this mission. Flint may appear at any one of the
four nav point locations.

Success
  ○ Come back with Flint. (She automatically returns with you when you autopilot.) If
    Mission LOC-2 won, go to Mission BLK-1. Otherwise, go to Mission BLK/L-1.

Failure
  ○ Come back without Flint. If Mission LOC-2 won, go to Mission BLK-1. Otherwise, go
    to Mission BLK/L-1.

Plot Paths
  If Flint survives and returns with you > go to Mission LOC-3.

ANALYSIS
- If you want to raise ship morale, go after Flint. (She'll live even if you don't chase her
  down, but ship morale will decline because you, the Fearless Leader, didn't think she was
  worth saving.)

- If you customized your power setup, you'll have to redo it when you autopilot after Flint.

- Avoid the cruiser—you don't have to kill it to win the mission.

- Once you land, you get a pep talk on the Bridge from Eisen if you won LOC-2 and brought
  back Flint. If you lost either mission, you get a downer conversation with him instead (at
  the beginning of the first Blackmane mission).

BLACKMANE SECTOR

Next, the *Victory* and her escorts go to Blackmane Sector to bolster defenses at a base (and jump point) there. If you went after Flint earlier, you must decide whether to ground her or not for this series. In these missions, you are responsible for protecting the sector base, as well as supply convoys traveling in and out of the sector.

BLACKMANE MISSION 1 (BLK-1)
GAMEFLOW

Conversations   Eisen (BG), **Flint** (FD), **Rachel** (**FD**), Rollins (FC)

New Morale Conversations

Flint (FD)	*Give her a break.*	+1
	Ground her.	−1
Rachel (FD)	*She understands.*	+1
	It's none of her business.	−1

Other New Movies

Eisen (BG)	BLK-1 through BLK-3
Rollins (FC)	BLK-1 through BLK-3

MISSION

Briefing   In this first mission, your fighter group must defend the base in Blackmane Sector.

Wingmen   **Cobra**, Flash, Flint, Hobbes, Maniac, Vagabond, Vaquero

Ships   *Arrow*, *Hellcat*, *Thunderbolt*

SHIPS ENCOUNTERED

	A (Nav 1)	
Darket	4	4
Dralthi	4	
Strakha		
Vaktoth		
Paktahn	4*	

* Including *Paktahn* ace, Bloodmist.

Takeoff

O Autopilot.

(A) Nav 1

O Friendly base.

O 4 *Dralthi*.

O 4 *Dralthi* destroyed > 4 *Darket*.

O 4 *Darket* destroyed > 4 *Darket*, 4 *Paktahn* (including ace, Bloodmist).

O Autopilot back to the *Victory*.

Takeoff

(A) Nav 1

Success

O Keep the base intact. Go to Mission BLK-2.

Failure

O Go to Mission ARI-1.

ANALYSIS

• Don't take the *Dralthi* head-on if you're flying an *Arrow*. If you're in another ship, allocate more power to your shields.

• When facing Bloodmist, activate full guns and arm your IR missiles. Assign your wingman to any ship besides Bloodmist's, then lock onto him. If you took Cobra, she'll stay on her target and will stay near the base. Then go after Bloodmist and launch a couple of missiles at him.

• Don't forget to use your decoy button when Bloodmist launches missiles at you.

• Once the ace is gone, afterburn back to the main battle and take on the other *Paktahn* that are attacking the base.

PLAY

PAUSE

REWIND

SCAN

DELETE

This is Barbara Miles with another TNC InfoBurst. Reports have surfaced that captured Confederation transports and freighters have been used by the enemy as decoys, luring in unsuspecting fighter pilots who are then ambushed by the enemy.

TNC NEWSBRIEF TEXT FEED

BLACKMANE MISSION 2 (BLK-2)
GAMEFLOW
Conversations   Eisen (BG), **Maniac** (BK), **Rachel** (FD), Rollins (FC)

New Morale Conversations

| Maniac (BK) | *He's jealous.* | +1 |
| | *It's none of his business.* | −1 |

MISSION

Briefing	Eisen assigns your fighter group the task of ensuring the safety of inbound convoys. You're to fly out to two areas, destroy any Kilrathi there, and then do a fly-by of the freighters to establish contact. Once you do this, you are to return to the base area with the convoy. At the third nav point, you'll need to do another fly-by of the freighters to establish contact.
Wingmen	Cobra, Flash, Flint, Hobbes, Maniac, **Vagabond**, Vaquero
Ships	***Arrow**, Hellcat, Thunderbolt*
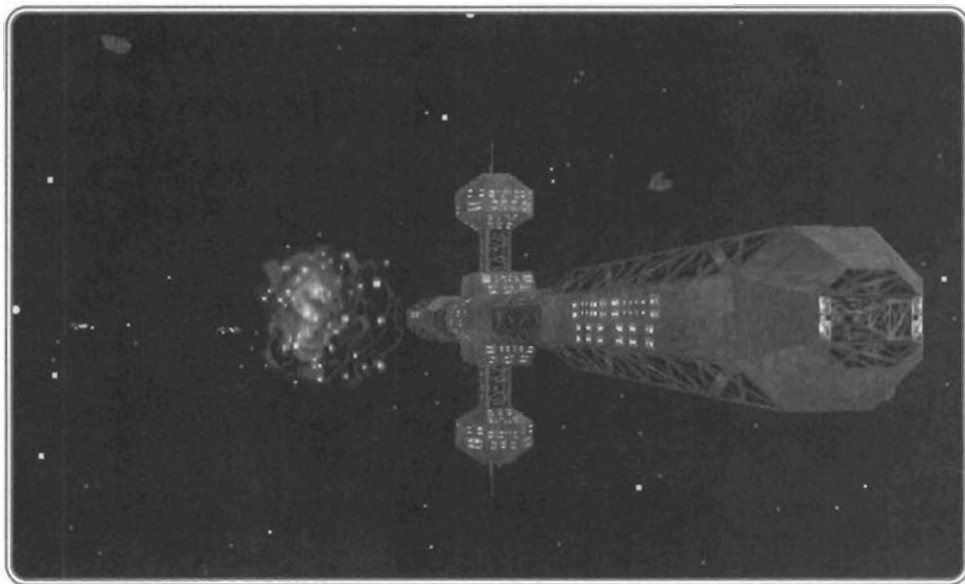
SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)	C (Nav 3)	D (Nav 4)
Darket				
Dralthi	4			
Strakha			4	4
Vaktoth				
Paktahn				

Takeoff
- ○ Autopilot.

(A) Nav 1
- ○ 2 friendly transports, 4 *Dralthi*.

(B) Nav 2
- ○ Drop transports off at Blackmane base, then autopilot.

(C) Nav 3
- ○ 2 "friendly" transports (Kilrathi traps).
- ○ When you link with the first transport, it explodes and 4 *Strakha* uncloak.
- ○ 4 *Strakha* destroyed > 4 more appear.

(D) Nav 4
- ○ Another asteroid field.
- ○ *Victory*, friendly battleship, 2 friendly transports unloading cargo.
- ○ Land on the *Victory*.

(C) Nav 3   **(A) Nav 1**

Takeoff/
(B) Nav 2

(D) Nav 4
(Base, *Victory*)
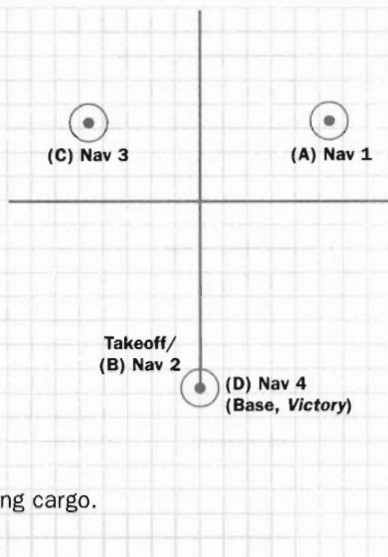
Success
- ○ Destroy all enemies at Nav 3 and return to the *Victory*. Go to Mission BLK-3.

Failure
- ○ Go to Mission BLK-3.

ANALYSIS
- Don't worry about linking with the transports at Nav 1 until you've eliminated the *Dralthi*. There's no time limit on getting hooked up with them.

- Beware of the second set of transports at Nav 3—the Kilrathi captured the convoy some time ago and rigged both freighters to explode when you're close enough. The blast will damage the shields and your ship, and put you at a disadvantage when four *Strakha* uncloak nearby.

- *Strakha* won't cloak when they're behind you.

BLACKMANE MISSION 3 (BLK-3)
GAMEFLOW
Conversations Eisen (BG), **Flint** (GC), **Maniac** (BK), **Rachel (FD)**, Rollins (FC)
New Morale Conversations

Flint (GC)	*Put her back on the roster.*	+1
	Let the captain decide.	−1

MISSION
Briefing You're to meet a special convoy en route to Blackmane base, carrying a sizable stash of weapons. Once you meet it, follow the nav points back to the base (in order) and protect the convoy at all costs. The Kilrathi will be bent on destroying this cargo and will have fighters waiting at every nav point.

Wingmen **Cobra**, Flash, Flint, Hobbes, Maniac, Vagabond, Vaquero
Ships *Arrow, Hellcat, Thunderbolt*

SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)	C (Nav 3)	D (Nav 4)
Darket				
Dralthi				
Strakha		4 4		
Vaktoth			2 2	
Paktahn				
Sorthak	2 2			

Takeoff
- ○ Link with 2 transports by flying near them.
- ○ Autopilot.

(A) Nav 1
- ○ 2 *Sorthak*.
- ○ 2 *Sorthak* destroyed > 2 more appear.

(B) Nav 2
- ○ 4 *Strakha*.
- ○ 4 *Strakha* destroyed > 4 more appear.

(C) Nav 3
- ○ 2 *Vaktoth*.
- ○ 2 *Vaktoth* destroyed > 2 more appear.

(D) Nav 4
- ○ Drop off transports at friendly starbase.
- ○ Autopilot back to the *Victory*.
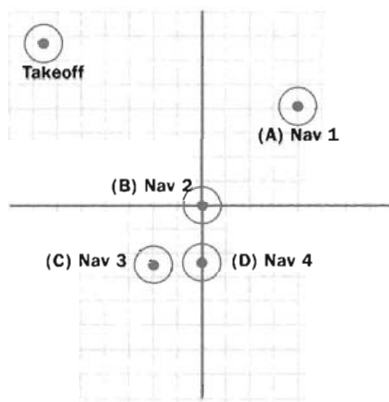
Success
- ○ Follow the correct flight path and make it to the base with all transports intact. Go to Mission ARI-1.

Failure
- ○ Lose one or more transports and/or deviate from the flight plan. Go to Mission ARI-1.

ANALYSIS

- If you grounded Flint, put her back on the Flight Roster. Otherwise, Eisen will do this for you, and her morale won't be raised a point.

- Take the *Arrow*—it's a good choice for protection missions, and it's fast.

- Be sure to link with the transports. You can't autopilot unless you do this.

- Use the Shelton slide maneuver against the *Sorthak* at Nav 1. Whatever you do, don't get behind them—their rear turrets are deadly.

- Use IR or FF missiles on the *Strakha* at Nav 2—they'll target the nearest uncloaked enemy.

- At Nav 3, don't get behind the *Vaktoth*'s rear turrets. Instead, use your IR missiles against them (if you went with them on your loadout).

- If you get really damaged, wait to autopilot, and dump your power to damage repair. This is a good tactic if you've already cleared all Kilrathi out of your current nav point.

- At Nav 4, drop off your transports at Blackmane base. The *Victory* left here and has already traveled to a nearby nav point. Autopilot there to land.

ARIEL SYSTEM

In Ariel System, the *Victory* is assigned to be the core of an RIF (Recon In Force) group. Your fighter groups will compose the main striking arm and will provide cover for the scout, two destroyers and the *Victory* itself. Once control of this sector is gained, a top-secret covert operation can begin.

ARIEL MISSION 1 (ARI-1)

GAMEFLOW

Conversations	**Cobra** (FC), Rollins (BG), **Vagabond** (RR)

New Morale Conversations

Cobra (FC)	*She's right.*	+1
	She's out there.	−1
Vagabond (RR)	*He's worried about nothing.*	+1
	We're just pilots.	−1

Other New Movies

Rollins (BG)	ARI-1 through ARI-3

MISSION

Briefing	Your first mission is to enter Kilrathi space in Ariel system and destroy the garrison there. You have one advantage, and that is that the Kilrathi here are spread out. Your fighter groups must patrol several nav points and engage both fighters and capital ships. Any escaping ships will warn the Kilrathi that a major force is present, thus rendering an RIF mission useless.
Wingmen	Cobra, Flash, Flint, **Hobbes**, Maniac, Vagabond, Vaquero
Ships	*Arrow, Hellcat, Thunderbolt, **Longbow***
Rec. Loadout	Switch out at least half your missiles for FF missiles.

SHIPS ENCOUNTERED

|	A (Nav 1)		B (Nav 2)	C (Nav 3)	
Darket			4	4	
Dralthi			4		
Strakha	2	2	4		
Vaktoth				4	
Paktahn					
Transport	2				
Corvette	1				
Carrier			1		

Takeoff

○ Autopilot.

(A) Nav 1

○ 2 enemy transports, 1 corvette, 2 *Strakha*.

○ 2 *Strakha* destroyed > 2 more appear.

(B) Nav 2

○ 4 *Strakha*.

(C) Nav 3

○ Enemy carrier, 4 *Darket*.

○ 4 *Darket* destroyed > 4 *Dralthi* launch from carrier.

○ 4 *Dralthi* destroyed > 4 *Darket* launch from carrier.

○ 4 *Darket* destroyed > 4 *Vaktoth* launch from carrier.

○ Autopilot back to the *Victory*.
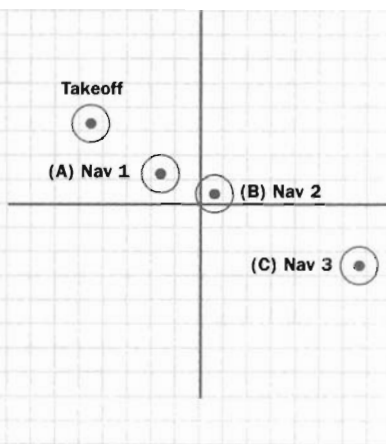
Success

○ Destroy all Kilrathi fighters and capital ships. Go to Mission ARI-2.

Failure

○ Go to Mission DEL/L-1.

ANALYSIS

• Allocate more power to your weapons, less to shields. The *Longbow's* shields are exceptionally strong.

• If you didn't bring a bomber to go after the cap ships and have to use your guns to destroy them instead, go for the fighters first in every case. But, don't forget to save some of your missiles for the impending waves, especially at Nav 3.

• Use your rear turret against the cloaking *Strakha* at Nav 1.

• At Nav 1, take out the transports with your guns and save your missiles — they're weak and only have two turrets. Don't forget to afterburn out when they're about ready to blow, or you can really hurt your ship.

• Before you leave Nav 2, arm both of your torpedo hardpoints. You'll find a carrier lurking as soon as you drop out of the next autopilot sequence. If you destroy the carrier quickly at Nav 3 using your torps, you can avoid any more waves of fighters — they won't be launching without a flight deck.

• To attack the carrier, park yourself about 13,000 km out. When you arm both torpedoes, they try to acquire locks at the same time. Once you fire the first one, you can fire the second one immediately, with no delay for a second lock.

• After you unload your torpedoes, switch targets and release a few FF missiles. They'll acquire their own targets while you chase down other ships.

• Correct your damage between waves by afterburning away from the scene and temporarily boosting power allocation to your damage repair system.

ARIEL MISSION 2 (ARI-2)

GAMEFLOW

Conversations	**Cobra** (FC), Hobbes (GC), Rachel (FD, FC), Rollins (BG), **Vaquero** (BK)

Vaquero (BK)	*Stop worrying, Vaquero.*	+1
	War is hell, buddy.	−1

Other New Movies

Hobbes (GC)	ARI-2 through ARI-3

MISSION

Briefing	A nearby nebula in Ariel System is being used by the Kilrathi to screen convoys going to and from the front. The *Victory* and her escorts are to lie in wait in the shifting clouds of dust and gas, and ambush whatever enemies come along. There will be several battles, all inside the nebula, where you will attack Kilrathi convoys and their escorts.
Wingmen	Cobra, Flash, **Flint**, Hobbes, Maniac, Vagabond, Vaquero
Ships	*Thunderbolt, Longbow*
Rec. Loadout	Replace at least half your missiles with FF missiles.
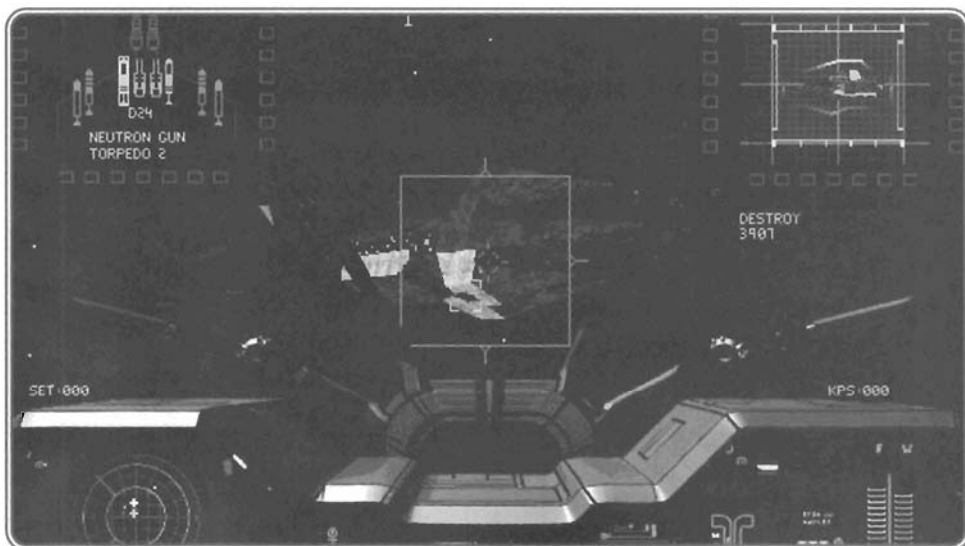
SHIPS ENCOUNTERED

	A (Nav 1)		B (Nav 2)	C (Nav 3)	
Darket		4	4		4
Dralthi					
Strakha					
Vaktoth	4	4		4	4
Paktahn					
Transport	1		1	1	
Corvette			1		
Hvy. Dest.	1			1	

Takeoff
- ◯ Autopilot.

Takeoff ●

(A) Nav 1
- ◯ Enemy transport, heavy destroyer, 4 *Vaktoth*.
- ◯ 4 *Vaktoth* destroyed > 4 more appear.
- ◯ 4 more *Vaktoth* destroyed > 4 *Darket*.

(A) Nav 1 ●

(B) Nav 2
- ◯ Enemy corvette, 1 transport, 4 *Darket*.

(B) Nav 2 ●

(C) Nav 3
- ◯ Enemy heavy destroyer, 1 enemy transport, 4 *Vaktoth*.
- ◯ 4 *Vaktoth* destroyed > 4 more appear.
- ◯ 4 more *Vaktoth* destroyed > 4 *Darket*.
- ◯ Autopilot back to the *Victory*.

(C) Nav 3 ●

Success
- ◯ Destroy all Kilrathi ships in this mission. (If even one escapes, you fail the mission.) Go to Mission ARI-3.

Failure
- ◯ Go to Mission DEL/L-1.

ANALYSIS

- The nebula effect turns your screen pale red. This makes it harder to identify cloaking ships.

- At Nav 1, take out the transport and send your wingman after the destroyer. If you do this, however, make sure you take someone invulnerable. Once you eliminate the transport, worry about the destroyer (if your wingman hasn't already taken it out).

- Fire FF missiles to deliver preliminary damage to the larger ships. Or, you can use HS missiles.

- When attacking the corvette at Nav 2, stay about 10,000 kilometers out. It can't touch you with guns at this distance, but you're close enough to get a lock.

- Don't land without killing all capital ships in the mission. Otherwise, you don't accomplish the mission objectives.

- If Hobbes or Flint is flying on your wing, they're likely to eject if heavily damaged.

ARIEL MISSION 3 (ARI-3)

GAMEFLOW

Conversations **Cobra** (FC), Flint (RR), Hobbes (GC), Rollins (BG), **Vaquero** (BK)

Other New Movies

Flint (RR)   ARI-3

MISSION

Briefing   At least one Kilrathi escaped in Mission ARI-2, and the enemy is now aware of the RIF mission. Somehow, they have managed to "close" the jump point through which you arrived—it's possible they've developed a new technology. In any case, the *Victory* will be hard-pressed to make it past wave after wave of Kilrathi. You must help the *Victory* find an alternate jump point.

Wingmen   Cobra, Flash, Flint, Hobbes, **Maniac,** Vagabond, Vaquero

Ships   *Arrow, Hellcat,* **Thunderbolt**, *Longbow*

Rec. Loadout   Switch out HS missiles for IRs (1 hardpoint only)

SHIPS ENCOUNTERED

|	A (Inv 1)	B (Nav 1)	C (Nav 2)
Darket	4	2 2 2	
Dralthi			
Strakha		2	4
Vaktoth			
Paktahn	2		
Corvette			1*
Carrier		1	

* Corvette has a Skipper missile.

(A) Inv 1
- ○ 4 *Darket*, 2 *Paktahn*.

(B) Nav 1
- ○ Discover that the jump point is closed.
- ○ Defend *Victory* against 1 enemy carrier, 2 *Strakha*.
- ○ 2 *Strakha* destroyed > 2 *Darket* appear (total of 6 *Darket*, in 3 waves).

(C) Nav 2 (Kilrathi may or may not appear)
- ○ Defend *Victory* against 1 enemy corvette (with Skipper missile), 4 *Strakha*.
- ○ Land aboard the *Victory* so that it can jump through the alternate jump point. (You may be able to do this at Nav 1.)

(C) Nav 2

(B) Nav 1

(A) Inv 1

Takeoff
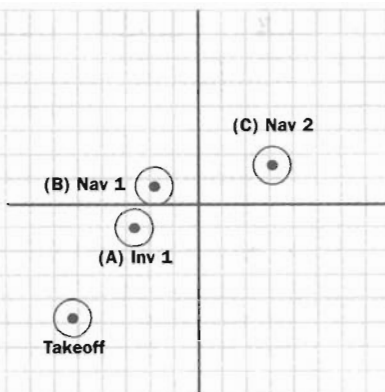
Success
- ○ Keep the *Victory* alive so that it can find the new jump point. Go to Mission CAL-1.

Failure
- ○ Go to Mission DEL/L-1.

ANALYSIS
- If you knock out the carrier at Nav 1 fast enough, you prevent subsequent waves from attacking.

- Before you autopilot to Nav 2, arm your torpedo. There's a corvette waiting for you. Since it has a Skipper missile, you need to use the torp instead of relying on your gunpower. Once you drop out of autopilot, watch closely for the Skipper missile. At the same time, try to launch a torpedo. Afterburn in, then wait for a tone and let the torpedo fly. Duck under the ship and head straight for the *Strakha*. If the Skipper missile has already been launched, go after it instead.

- If you destroy the corvette soon enough, you can prevent it from launching a Skipper altogether.

- You'll know you've found the new jump point when you try to autopilot and get a *Landing clearance required* message instead. This may occur at either Nav 1 or Nav 2.

CALIBAN NEBULA

The *Victory*, with the Kilrathi fleet in hot pursuit, races toward Caliban Nebula. The ride will be rough due to the physical and electronic effects of the nebula. Once in the nebula, the fleet will split into two groups. The two destroyers are your responsibility. After your squadrons clear out the area, the entire fleet will retreat through a new jump point.

CALIBAN MISSION 1 (CAL-1)

GAMEFLOW

Conversations   **Cobra and Hobbes** (FD), Flash (BK), **Maniac** (GC)

New Morale Conversations

Cobra/Hobbes (FD)	*Stick up for Hobbes.*	+1 (Hobbes), −1 (Cobra)
	Play along with her.	+1 (Cobra), −1 (Hobbes)
Maniac (GC)	*Rag him.*	+1
	Hey — it's tough for both sides.	−1

Other New Movies

Flash (BK)   CAL-1 through CAL-3

MISSION

Briefing   The objective of this mission is to shake off the enemy's pursuit by retreating through the newly discovered jump point in the nebula. Once inside the nebula, the *Victory* and her escorts divide up into groups. You are assigned to protect two destroyers against the pursuing Kilrathi fighters.

Wingmen   Cobra, **Flash,** Flint, Hobbes, Maniac, Vagabond, Vaquero

Ships   *Arrow, Hellcat,* ***Thunderbolt,*** *Longbow*

Rec. Loadout   Switch out HS missiles for IRs (1 hardpoint only)

SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)
Darket		
Dralthi		
Strakha		
Vaktoth	4	4
Paktahn		
Lt. Dest.	1	1

Takeoff
○ Autopilot.

(A) Nav 1
○ 1 friendly destroyer (*Sheffield*).
○ Enemy destroyer, 4 *Vaktoth*.

(B) Nav 2
○ 1 friendly destroyer (*Coventry*).
○ Enemy destroyer, 4 *Vaktoth*.
○ Autopilot back to the *Victory*.

Success
○ Destroy 6 Kilrathi fighters. Go to Mission CAL-2.

Failure
○ Go to Mission TOR-1.

ANALYSIS
• To be thoroughly rational, you should side with Cobra against your old friend Hobbes. Lowering his morale won't affect how well he flies, while raising hers will improve her skills.

• You can't lose this mission if you stay out of the action. Park by the *Sheffield* at Nav 1 and match its speed. Let the *Sheffield* and your wingman do the work while you enjoy the show.

• Use the same "parking" tactic as above at Nav 2, but duck behind the *Coventry* so you can admire its turrets in action.

CALIBAN MISSION 2 (CAL-2)

GAMEFLOW

Conversations   Flash (BK), **Flint** (FC), **Maniac** (GC)

New Morale Conversations

Flint (FC)   *It's tough getting old.*   +1

           He's better off there.   −1

MISSION

Briefing   By this time, the Kilrathi have found the jump point through which the Confederation fleet is escaping. The enemy scout force is making its way back to the main fleet command to transmit the information (communications are scrambled by the nebula's strong electromagnetic fields). Your fighters must stop the retreating fighters to protect the last of the Confederation ships.

Wingmen   Cobra, Flash, Flint, **Hobbes**, Maniac, Vagabond, Vaquero

Ships   *Arrow, Hellcat, **Thunderbolt**, Longbow*

Rec. Loadout   Switch out HS missiles for IRs (1 hardpoint only)
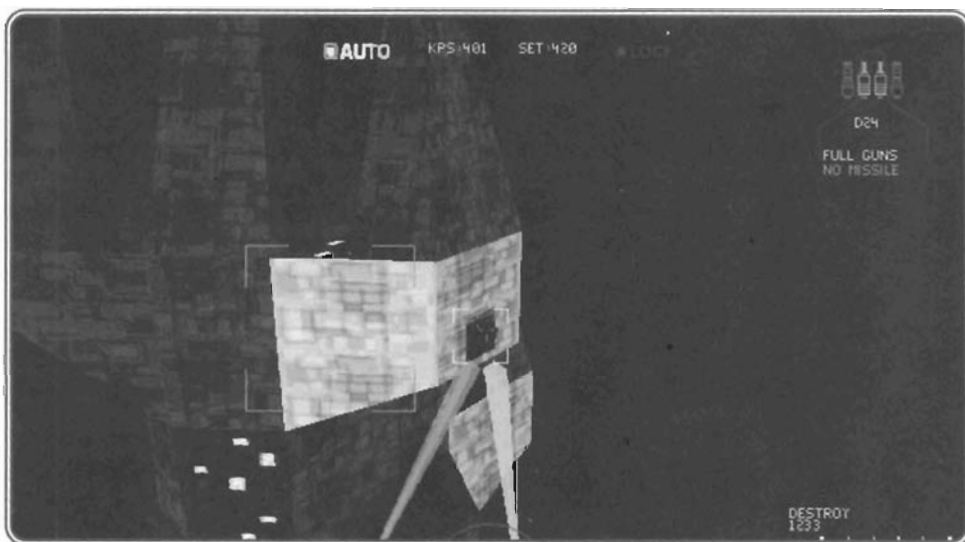
SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)	C (Nav 3)
Darket	4		
Dralthi		6	
Strakha			
Vaktoth		4	
Paktahn			
Corvette			2
Lt. Destroyer			1
Scout			1

Takeoff

○ Autopilot.

(A) Nav 1

○ 4 *Darket*.

(B) Nav 2

○ 6 *Dralthi*.

○ 6 *Dralthi* destroyed > 4 *Vaktoth*.

(C) Nav 3

○ 2 enemy corvettes, 1 enemy destroyer, 1 scout ship.

○ Autopilot back to the *Victory*.

Success

○ Destroy all Kilrathi at Nav 3. Go to Mission CAL-3.
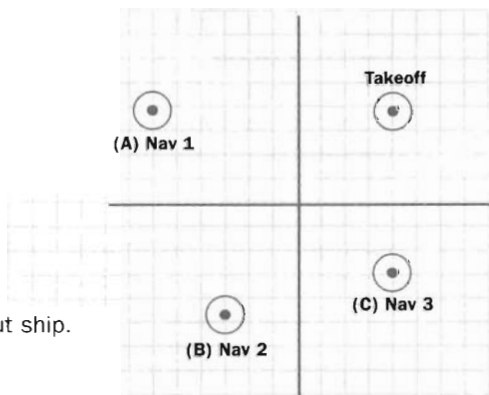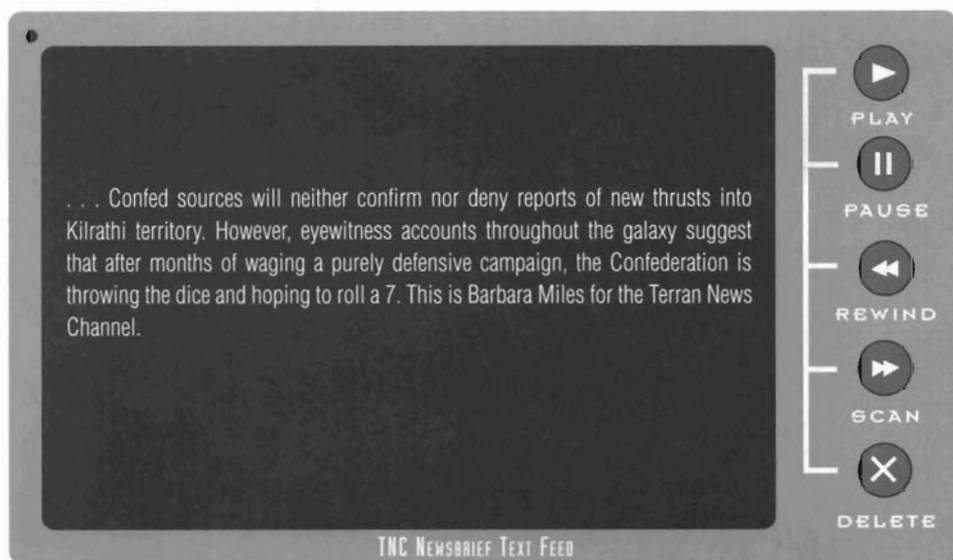
Failure

○ Go to Mission TOR-1.

ANALYSIS

- If you find several *Dralthi* on your tail, don't hesitate to switch to your rear turrets every so often. Your automatic tailgunner is pretty accurate, but you might consider taking over if you've only got a couple of enemies left.

- Send your wingman after the corvette at Nav 3 while you take out the destroyer with your torpedo. Next, take out the scout ship. The best way to do this is shoot its turrets first, then gun it to death.

- When cooking capital ships at Nav 3, sprinkle liberally with missiles. You don't have any more nav points or enemies to worry about.

. . . Confed sources will neither confirm nor deny reports of new thrusts into Kilrathi territory. However, eyewitness accounts throughout the galaxy suggest that after months of waging a purely defensive campaign, the Confederation is throwing the dice and hoping to roll a 7. This is Barbara Miles for the Terran News Channel.

PLAY

PAUSE

REWIND

SCAN

DELETE

TNC NEWSBRIEF TEXT FEED

CALIBAN MISSION 3 (CAL-3)
GAMEFLOW
Conversations Flash (BK), **Flint** (FC), Hobbes (FD), **Maniac** (GC), Rachel (FC)
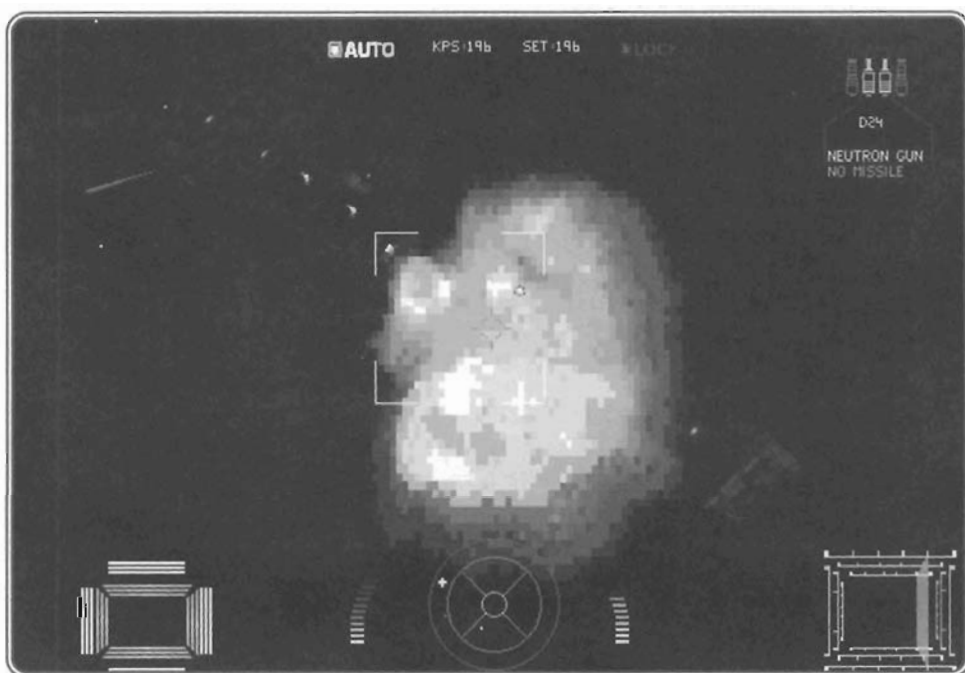**Other New Movies**
Hobbes (FD) CAL-3

MISSION
Briefing Your small force is massed once again and headed for the escape jump point. Your fighter group is to escort the *Victory* and its accompanying ships through the jump. The Kilrathi, however, have also regrouped and are coming after you.
Wingmen Cobra, Flash, Flint, Hobbes, Maniac, Vagabond, **Vaquero**
Ships ***Arrow**, Hellcat*

SHIPS ENCOUNTERED

|	A (Inv 1)	B (Nav 1)	C (Nav 2)
Darket	4	4	2 4
Dralthi			4 2
Strakha			
Vaktoth			4 2
Paktahn			
Corvette	1	1	1

Takeoff

○ Autopilot.

(A) Inv 1

○ Defend the *Victory* against 1 enemy corvette, 4 *Darket*.

(B) Nav 1

○ Defend the *Victory* against 1 enemy corvette, 4 *Darket*.

(C) Nav 2

○ Defend the *Victory* against 4 *Dralthi*.
○ 4 *Dralthi* destroyed > 1 enemy corvette, 2 more *Dralthi*.
○ Previous wave destroyed > 4 *Vaktoth*.
○ Previous wave destroyed > 2 *Darket*, 2 *Vaktoth* appear.
○ 2 *Vaktoth* destroyed > 4 more *Darket*.
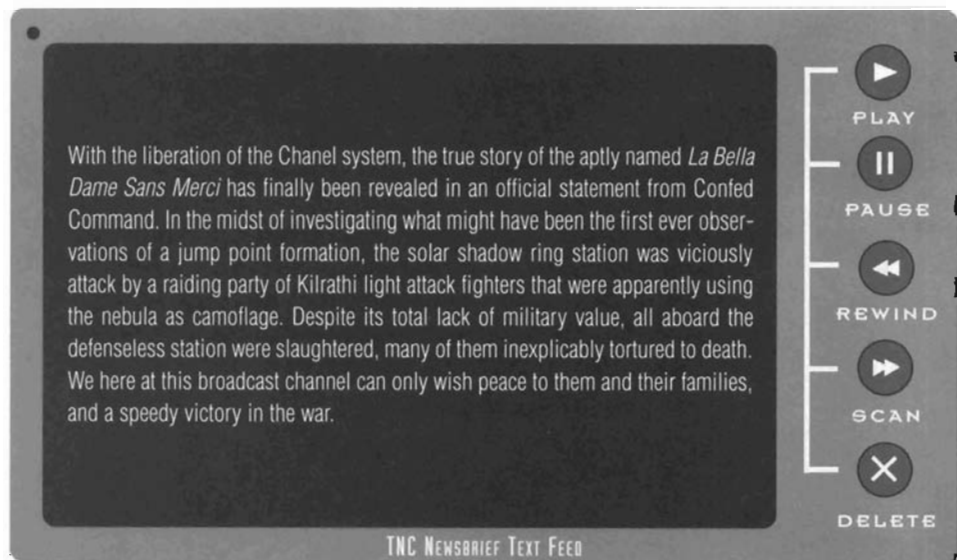○ Autopilot back to the *Victory*.

Takeoff ⊙

⊙ **(A) Inv 1**

(B) Nav 1 ⊙

⊙ **(C) Nav 2**
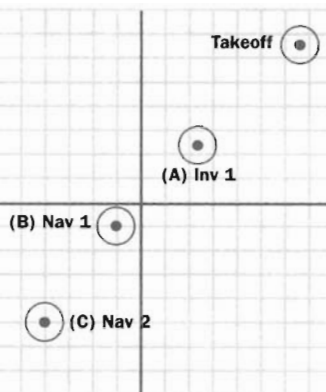
Success

○ Destroy 75% of the pursuing force (22 ships). Go to Mission TOR-1.

Failure

○ Go to Mission TOR-1.

ANALYSIS

• When you take off, the *Victory* is under attack. Take out the fighters first and leave the corvette until last. It's too far away to attack at the moment, and you don't *have* to kill it.

• Save your missiles for the last nav point since you'll face lots of enemy waves there.

• If you've taken armor damage, allocate more power to shields and less to engines. In most cases, you can get by with minimal engine power—the exception being when you're chasing down capship missiles.

With the liberation of the Chanel system, the true story of the aptly named *La Bella Dame Sans Merci* has finally been revealed in an official statement from Confed Command. In the midst of investigating what might have been the first ever observations of a jump point formation, the solar shadow ring station was viciously attack by a raiding party of Kilrathi light attack fighters that were apparently using the nebula as camoflage. Despite its total lack of military value, all aboard the defenseless station were slaughtered, many of them inexplicably tortured to death. We here at this broadcast channel can only wish peace to them and their families, and a speedy victory in the war.

▶ PLAY

❚❚ PAUSE

◀◀ REWIND

▶▶ SCAN

✕ DELETE

TNC NEWSBRIEF TEXT FEED

TORGO SYSTEM

After picking up Admiral Tolwyn, the *Victory* (under Tolwyn's command) makes a rendezvous with another ship in Torgo system. Tolwyn explains to you and Eisen the purpose of his visit. During the past year, he's been in charge of an important R&D project, the building of the largest gun in the universe. In this series, the *Victory* is assigned escort duty for the Confederation's top secret weapon, code named "*Behemoth*." This powerful planet-killing device will be used to destroy Kilrah from space. The *Victory* and its crew will meet heavy opposition, but it is essential to press forward, refueling at pre-arranged secret stations along the way. Your squadrons must protect the *Behemoth* at all cost.

TORGO MISSION 1 (TOR-1)

GAMEFLOW

Conversations Flint (GC), *Tolwyn* (FD)

New Morale Conversations

Tolwyn (FD)	*We're all equal here.*	+1 (Ship)
	Score points with the admiral.	−1 (Ship)
Flint (GC)	*She can see Tolwyn's a jerk.*	+1
	It's none of her business.	−1

MISSION

Briefing As you arrive in Torgo, the *Behemoth* is already targeted for attack at a nearby nav point. As the fleet deploys for battle, you order a magnum launch (all fighters away) to protect the Confederation's last hope.

Wingmen None (scramble, but **Flint** flies with you)

Ship *Arrow*

SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)	C (Nav 3)	D (Nav 4)
Darket				
Dralthi				
Strakha	2		2	
Vaktoth		2 2 2 2		
Paktahn	2	2 2 2 2	2	

Takeoff

○ Autopilot.

(A) Nav 1

○ 2 *Vaktoth*, 2 *Paktahn*.
○ Release two mines after all enemies are destroyed.
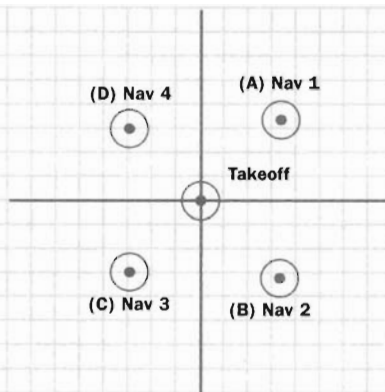
(B) Nav 2

○ 2 *Vaktoth*, 2 *Paktahn*.
○ Release two mines after all enemies are destroyed.

(C) Nav 3

○ 2 *Vaktoth*, 2 *Paktahn*.
○ Release two mines after all enemies are destroyed.

(D) Nav 4

○ 2 *Vaktoth*, 2 *Paktahn*.
○ Release two mines after all enemies are destroyed.
○ Autopilot back to the *Victory*.

Success

○ Mine the four jump points. Go to Mission TOR-3.

Failure

○ Eject or fail to mine the four jump points. Go to TOR-3.

ANALYSIS

• If you're down to three or fewer enemies, use the *Longbow's* rear turrets against anything that's tailing you.

• Keep an eye on your shield strength (keep it displayed in the Left VDU). If you find your shield power is diminishing, switch more to shields and less to engines. After all, you shouldn't be too concerned about speed in a *Longbow*.

• If you're really getting dogged, send a *Help me out here!* message to your wingman. This usually works, but Maniac won't always comply.

• To shake off a pursuing enemy, use your afterburners to vary your speed.

• Lay 2 mines at each nav point in this mission before you autopilot. It's best to lay them after all enemy ships are dead. That way, they won't run into them.

TORGO MISSION 3 (TOR-3)
GAMEFLOW
Conversations   Rollins (LF), Tolwyn (BG)

MISSION
Briefing   The *Behemoth* is ready to jump (with escorts) to the final refueling point, topping off for the next leg of the trip. There's only one catch—you don't have any nearby fuel depots. To make up for this shortcoming, you'll need to hit a Kilrathi convoy and capture its fuel by disabling three Kilrathi tankers. The tanker escorts include a Kilrathi battle rider squadron (minus tender) and several heavy fighters. You must destroy the escorts, then disable the tankers without destroying them (using a delicate touch with your guns). The *Behemoth* then "steals" fuel from the tanker for the next leg of its journey.

Wingmen   **Cobra**, Flint, Hobbes, Vagabond, Vaquero / Flash, Maniac
Ships   *Arrow*, *Hellcat*
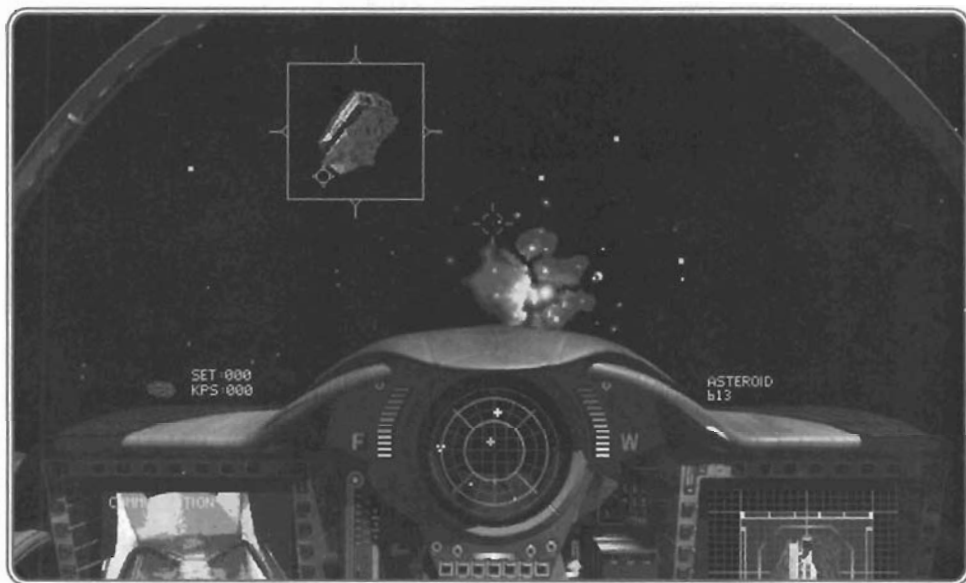
SHIPS ENCOUNTERED

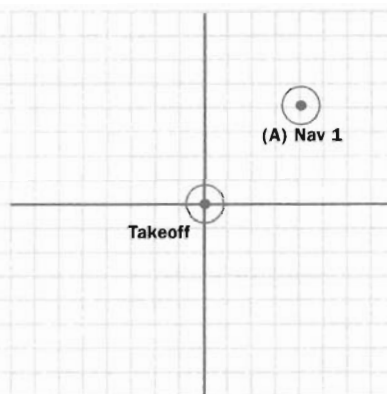|	A (Nav 1)			
Darket				
Dralthi				
Strakha				
Vaktoth				
Paktahn				
Asteroid	2	2	2	2
Tanker	3			

Takeoff
- O Autopilot.

(A) Nav 1
- O Protect the *Behemoth*.
- O 3 enemy tanker transports, 2 *Asteroid* "rock" fighters.
- O 2 *Asteroid* fighters destroyed > 2 more appear (total of 8, in 4 waves).
- O Autopilot back to the *Victory*.

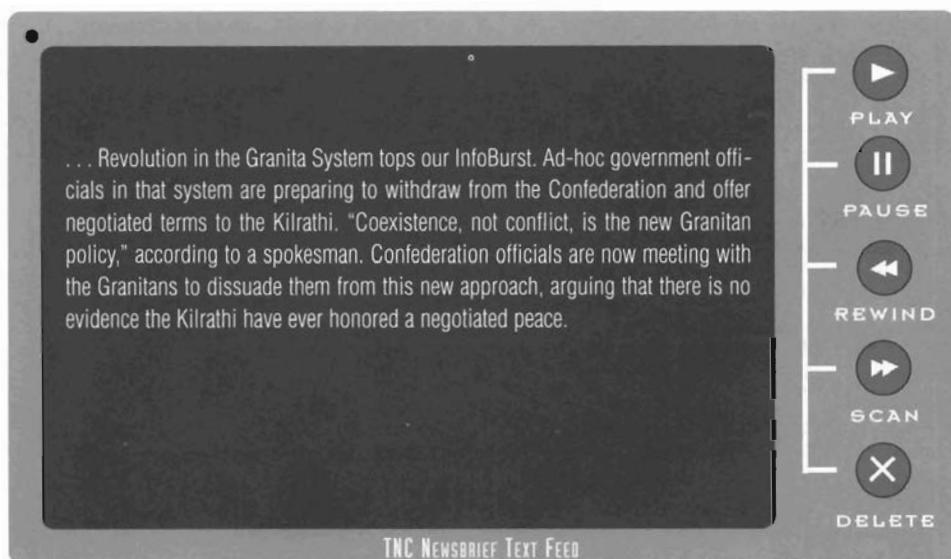*(diagram: (A) Nav 1 above Takeoff on a coordinate grid)*

Success
- O Disable three tankers. Go to Mission LOK-1.

Failure
- O Die, or destroy a tanker instead of disabling it. Go to LOK-1.

ANALYSIS

- Tail the asteroid fighters at Nav 1, but keep your distance. They're likely to drop mines, so be ready to avoid them at a second's notice. Running into one will kill you instantly.

- After you eliminate the first wave of fighters, leave the rest for Cobra while you go after the tankers.

- Take out the turret guns first on the tankers, then fire your guns at their engines until you get a *Transport disabled* message. Whatever you do, don't shoot missiles. They're likely to destroy the transport, not disable it.

- Watch out for the mines—they stay around long after the fighters are dead.

... Revolution in the Granita System tops our InfoBurst. Ad-hoc government officials in that system are preparing to withdraw from the Confederation and offer negotiated terms to the Kilrathi. "Coexistence, not conflict, is the new Granitan policy," according to a spokesman. Confederation officials are now meeting with the Granitans to dissuade them from this new approach, arguing that there is no evidence the Kilrathi have ever honored a negotiated peace.

PLAY

PAUSE

REWIND

SCAN

DELETE

TNC NEWSBRIEF TEXT FEED

LOKI VI. OPERATION BEHEMOTH

You and your fighter group embark on an offensive series of missions as you begin to penetrate Kilrathi space. The *Behemoth* will be tested in Mission LOK-2, but is currently present in the immediate area. The super weapon is complete, and final plans are being made for the assault on Kilrah. It becomes obvious that you cannot take a huge ship like the *Victory* to Kilrah—it would easily be destroyed by network defenses. Consequently, you and your team must take your ships into Kilrathi space without a carrier and avoid patrols by hiding on the surfaces of asteroids and other cover. The fighter squadrons will bleed the objective and try to clear a path before *Behemoth* comes in to deliver the coup de grace.

LOKI MISSION 1 (LOK-1)

GAMEFLOW

Conversations   Rachel (FD), Vaquero (BK)

Other New Movies

Vaquero (BK)   LOK-1 through LOK-3
Rachel (FD)   LOK-1

MISSION

Briefing   Your fighter group is assigned the task of destroying everything in the base area (and surrounding areas) except for the base itself. In the next mission, the actual weapon test will take place on the planetary base.

Wingmen   Cobra, Flint, Hobbes, Vagabond, Vaquero / Flash, **Maniac**

Ships   *Arrow, Hellcat*

SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)	C (Nav 3)	D (Nav 4)	E (Nav 5)
Darket	4		4		
Dralthi		6			
Strakha			4		
Vaktoth	4		6		
Paktahn					
Corvette	1	1			

Takeoff

   O Autopilot.

(A) Nav 1

   O Enemy corvette, 4 *Darket*.
   O 4 *Darket* destroyed > corvette, 4 *Vaktoth*.

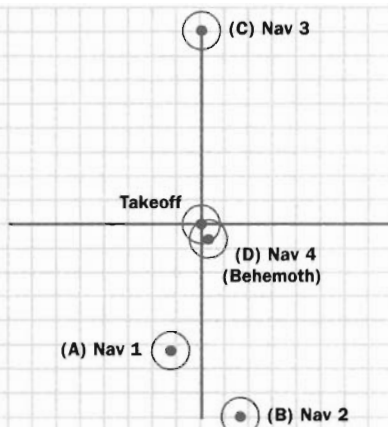**(B) Nav 2**

   O 6 *Dralthi*.

(C) Nav 3

   O 6 *Vaktoth*.
   O 6 *Vaktoth* destroyed > 4 *Darket*.
   O 4 *Darket* destroyed > 4 *Strakha*.

(D) Nav 4

   O *Behemoth*.
   O Autopilot back to the *Victory*.

Success

   O Destroy all Kilrathi around Loki VI. Go to Mission LOK-2.

Failure

   O Leave some Kilrathi ships alive. Go to Mission LOK-2.

ANALYSIS

- Use the slide tactic while you have full guns activated, especially against the *Vaktoth* at Nav 1.

- If a *Vaktoth* comes at you head-on, pitch up over his fire. Then, tap your afterburners, engage the slide, and pitch back down to shoot at his rear shields.

- Take out the *Dralthi* in this mission by tailing them and unloading full guns. Be careful, though — although *Dralthi* don't have rear turrets, they're fond of double-teaming you. If you find the heat's too much (and you're in an *Arrow*), hit your afterburners and slide into a 180-degree turn to shake them.

LOKI MISSION 2 (LOK-2)

GAMEFLOW

Conversations   Cobra (BK), Eisen (GC), Maniac (RR), Rachel (FD), Tolwyn (BG), Vaquero (BK)

Other New Movies

Cobra (BK)	LOK-2
Eisen (GC)	LOK-2
Rachel (FD)	LOK-2 through LOK-3
Maniac (RR)	LOK-2 through LOK-3
Tolwyn (BG)	LOK-2 through LOK-3

MISSION

Briefing   If any Kilrathi survive from Mission LOK-1, they flee. Tolwyn orders the *Behemoth* to fire, and a world ceases to exist. The remaining Kilrathi, including several cloaked ships, have lurked behind for the sole purpose of attacking the *Behemoth*. Several even perform suicide runs trying to blow the thing up, since they have little to no chance of escaping from Loki VI anyway. Your mission is to protect the *Behemoth*.

Wingmen   Cobra, Flint, Hobbes, **Vagabond**, Vaquero / Flash, Maniac

Ships   ***Arrow**, Hellcat*

SHIPS ENCOUNTERED

	Takeoff	
Darket		
Dralthi		
Strakha	4	
Vaktoth		
Paktahn	4	2
Corvette	2	

Takeoff

  ○ Defend *Behemoth*, *Victory* against 4 *Paktahn*.
  ○ 2 enemy corvettes appear after the *Behemoth* fires.
  ○ 2 corvettes destroyed > 4 *Strakha*.
  ○ 4 *Strakha* destroyed > 2 *Paktahn*.

Takeoff

Success

  ○ Keep the *Behemoth* alive. Go to Mission LOK-3.

Failure

  ○ You can't fail unless you die. Go to Mission LOK-3.

ANALYSIS

- Take out the *Paktahn* as quickly as possible, before they have a chance to attack the *Behemoth*. Since time is critical, launch missiles at them instead of using your guns.

- If you start getting hammered by corvettes after the *Behemoth* fires, increase your shield power setting. Take out a super rear turret first, then swing one direction and take out another turret on the top. If you're good, you can destroy two turrets in a single pass.

- Save some missiles for the last two waves of fighters. You're more likely to be damaged at this point, and missiles allow you to fight from farther away.
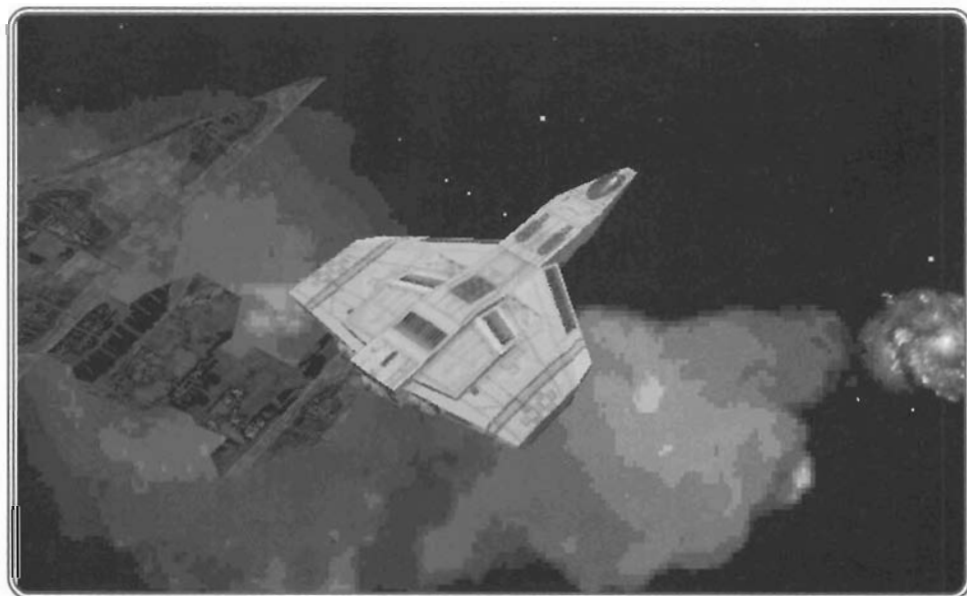
LOKI MISSION 3 (LOK-3)
GAMEFLOW
Conversations   Hobbes (GC), Maniac (RR), Rachel (FD, FC), Tolwyn (BG), Vaquero (BK)

MISSION
Briefing   The *Behemoth* is one jump away from Kilrah, and the Kilrathi forces are taking no chances. A Kilrathi fleet is waiting, and attacks the *Behemoth* on sight. Despite your efforts, the *Behemoth* is destroyed by attacking Kilrathi fighters

To add to the agony, Prince Thrakhath shows up to gloat and transmits a movie depicting Angel's unfortunate, gory demise. Once the *Behemoth* is gone, the *Victory* begins preparing to jump out of the sector. You've got two choices – chase Prince Thrakhath or return to the *Victory* within 90 seconds for the jump. If you go after Thrakhath, you're sure to die.

Wingmen   Cobra, Flint, **Hobbes**, Vagabond, Vaquero / Flash, Maniac
Ships   ***Arrow**, Hellcat*
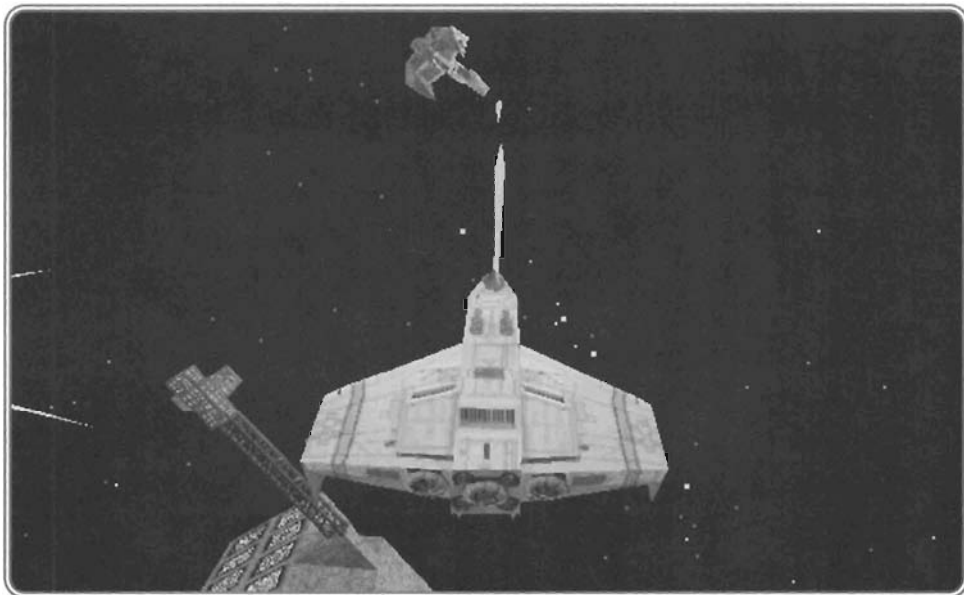
SHIPS ENCOUNTERED

	A (Nav 1)
Darket	
Dralthi	
Strakha	
Vaktoth	
Paktahn	4 4*
*Bloodfang***	1
Corvette	

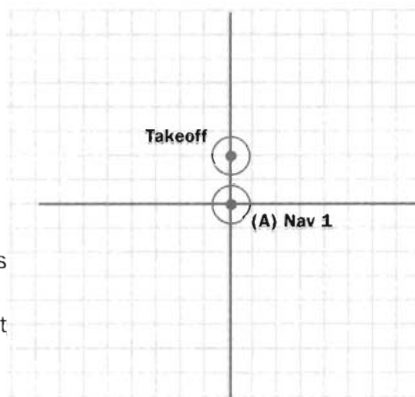* Infinite waves appear until the *Behemoth* dies.

** Prince Thrakhath's personal ship.

Takeoff
- ○ Autopilot.

(A) Nav 1
- ○ Defend the *Behemoth* against 4 *Paktahn*.
- ○ 4 *Paktahn* destroyed > more arrive in infinite waves until the *Behemoth* dies.
- ○ Land on the *Victory*. (You can go after Thrakhath, but the *Victory* will leave you stranded here.)
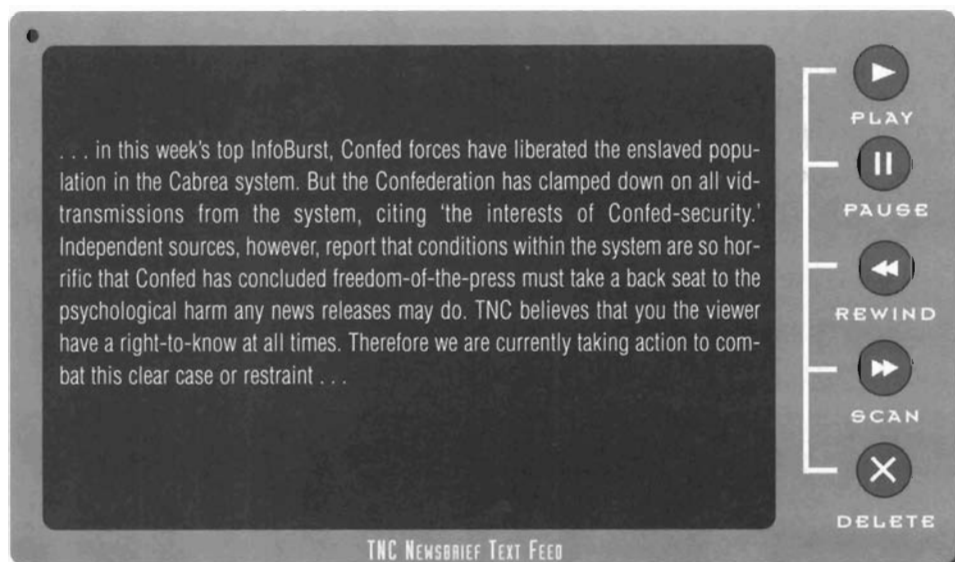
Success
- ○ The *Behemoth* is destroyed regardless of your efforts. Land aboard the *Victory* in time for the jump. Go to Mission ALC-1.

Failure
- ○ Miss the *Victory's* jump and remain stranded in space with Thrakhath.

ANALYSIS

- Send your wingman home. This is a hopeless mission, and you don't want to risk losing a wingman here. Instead of fighting the *Paktahn*, sit back and let them blow up the *Behemoth*.

- Don't bother with Thrakhath. He's brilliantly positioned himself just outside the range of your missiles, and you can't catch up with him, destroy him and make it back to the *Victory* before it jumps sector.

. . . in this week's top InfoBurst, Confed forces have liberated the enslaved population in the Cabrea system. But the Confederation has clamped down on all vid-transmissions from the system, citing 'the interests of Confed-security.' Independent sources, however, report that conditions within the system are so horrific that Confed has concluded freedom-of-the-press must take a back seat to the psychological harm any news releases may do. TNC believes that you the viewer have a right-to-know at all times. Therefore we are currently taking action to combat this clear case or restraint . . .

PLAY
PAUSE
REWIND
SCAN
DELETE

TNC NEWSBRIEF TEXT FEED

ALCOR SECTOR

After the *Behemoth* debacle, the Confed fleet scatters to divide the pursuing Kilrathi forces. The *Victory* finds herself in a new sector with a new assignment — to rescue a Confederation explosives scientist who is being held on a prison world. The *Victory* jumps into Alcor with a scout, two escorts and a troop ship, then heads for the target prison world. Once in orbit there, your fighters are to destroy resistance on the surface, clearing the way for Marine troops to land and free the scientist for transport back to Confederation territory.

ALCOR MISSION 1 (ALC-1)
GAMEFLOW

Conversations   **Rachel** (RR)
New Morale Conversations

| Rachel (RR) | She's OK … she understands. | +1 |
| | Ah, the hell with it — have another drink. | −1 |

MISSION

Briefing	Several Kilrathi forces are still pursuing the *Victory* and attack it as it heaves to for field repair. With the drives shut down, the *Victory* is unable to move, and all fighters scramble to defend their carrier. If you are in the Rec Room drinking and mulling over Angel's death, you'll be forced to fly inebriated. (Your reflexes will be slowed, and it will be harder to fight.)
Wingmen	None (scramble), but Hobbes flies with you
Ships	***Arrow**, Hellcat*
Rec. Loadout	Trade out HS missiles for FFs

Takeoff
- ○ Autopilot.

(A) Nav 1
- ○ Defend friendly destroyer (*Sheffield*) against 3 enemy corvettes.
- ○ One corvette dies > enemy corvette, 4 *Vaktoth*.
- ○ 4 *Vaktoth* destroyed > 8 *Darket*.

SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)	C (Nav 3)	D (Nav 4)	E (Nav 5)
Darket	8				
Dralthi		6 6			
Strakha			4		
Vaktoth	4	2		4	
Paktahn		4 4			
Sorthak					2 2
Corvette	3 1				

(B) Nav 2

- ○ 2 *Vaktoth*, 4 *Paktahn*.
- ○ First wave destroyed > 6 *Dralthi*.
- ○ 6 *Dralthi* destroyed > 6 more appear.
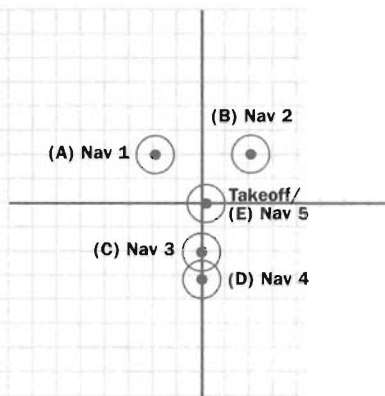- ○ 6 *Dralthi* destroyed > 4 *Paktahn*.

(C) Nav 3

- ○ 4 *Strakha*.

(D) Nav 4

- ○ 4 *Vaktoth*.

(E) Nav 5

- ○ Defend *Victory* against 2 *Sorthak*.
- ○ 2 *Sorthak* destroyed > 2 more appear.
- ○ Autopilot back to the *Victory*.

(A) Nav 1 ●   **(B) Nav 2** ●

Takeoff/ (E) Nav 5

(C) Nav 3 ●

(D) Nav 4 ●

Success

- ○ Drive away or destroy all attacking Kilrathi ships. Go to Mission ALC-2.

Failure

- ○ Go to Mission ALC-2.

ANALYSIS

- This is by far the hardest mission in the game. Whatever you do, don't fly drunk. Otherwise, your controls will randomly switch left/right and up/down, and your gun will fire sporadically and sometimes not at all.

- At Nav 1, move to intercept the incoming armada. Try a few slide-bys with a vertical twist —fly straight over a capital ship, then activate the slide and drop your nose 90 degrees. You'll slide over the ship nose-first, in perfect position to attack any turret guns.

- In the second wave of ships, hang out with the destroyer and let the enemy ships deal with its turret fire. Each time the destroyer takes out a ship, it says *Enemy target destroyed*. It'll even take out the corvette for you. After a few minutes, however, the destroyer jumps sector and you're forced to fight the rest of the mission.

- Go after the *Paktahn* first at Nav 2, but stay off their rear turrets. Match their speed, move slightly to one side, and fire at will using your leading I.T.T.S. gunsight.

- Load up on FF missiles for the *Strakha* at Nav 3—they'll target whichever ship is closest.

- The *Sorthak* fighter-destroyers at Nav 5 are tough—don't try taking them from behind or head-on. Instead, use the slide tactic. Hopefully, you conserved some afterburner fuel and missiles for this round.

- If you flew drunk, Flint chews you out at the end of the mission, and you have the option of raising or lowering her morale (see **New Morale Conversations** in ALC-2).

ALCOR MISSION 2 (ALC-2)
GAMEFLOW

Conversations   **Cobra,** *Rollins* (RR), **Flint** (FD), *Paladin* (GC)

New Morale Conversations

Cobra, Rollins (RR)	*She's got a point.*	+1 (Ship), +1
	Doesn't much matter.	−1 (Ship), −1
Flint (FD)	*She's right.*	+1
	Ah, I don't have to listen to this.	−1
Paladin (GC)	*Punch the son of a bitch!*	+1 (Ship)
	Ah, Paladin's on my side.	−1 (Ship)

MISSION

Briefing   Now that you've defended the *Victory* from a vicious Kilrathi attack, the fleet continues on its way to Alcor. You're to scout ahead of the formation, paying particular attention to asteroid fields and other concealing features. When you meet several Kilrathi ships, you must prevent any ships from escaping (thus revealing your presence). Additionally, the Confederation scout formation is flying five minutes behind you, and they're bound to fly straight into an attack.

Wingmen   Cobra, Flint, Hobbes, **Vagabond**, Vaquero / Flash, Maniac

Ships   *Arrow, Thunderbolt,* **Longbow**

SHIPS ENCOUNTERED

|	A (Nav 1)		B (Nav 2)	C (Nav 3)
Darket	6		4	6
Dralthi				4
Strakha			4	
Vaktoth				
Paktahn			4	
Asteroid		4		
Corvette	3	1		
Lt. Dest.	1			1

Takeoff

○ Autopilot.

(A) Nav 1

○ Enemy destroyer, 3 corvettes

○ Previous wave destroyed > 1 enemy corvette, 6 *Darket*.

(B) Nav 2

○ 4 enemy asteroid fighters.

○ 4 asteroid fighters destroyed > 4 *Strakha*.

○ 4 *Strakha* destroyed > 4 *Darket*.

(C) Nav 3

○ Enemy destroyer, 4 *Paktahn*.

○ 4 *Paktahn* destroyed > 6 *Darket*.

○ 6 *Darket* destroyed > 4 *Dralthi*.

○ Autopilot back to the *Victory*.

(C) Nav 3 •
(B) Nav 2 •
(A) Nav 1 •
Takeoff •
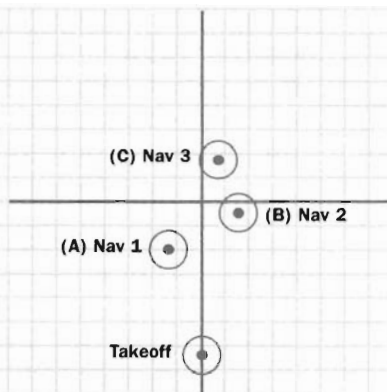
Success

○ Destroy all Kilrathi ships. Go to Mission ALC-3.

Failure

○ Go to Mission ALC-3.

ANALYSIS

• Punch out Paladin in Gunnery to raise ship morale.

• Against the corvettes at Nav 1, target one and order your wingman to attack your target. After he or she weakens it, afterburn toward its rear to take out its super turret first, then worry about the other lasers. If you take a lot of hits, retreat to recharge your shields and repair damage before making a second run.

• Against the second wave, attack the corvette only after you've eliminated the fighters.

• Use HS missiles against the *Darket*. Otherwise, you'll spend all day trying to catch them on the run with your guns.

• At Nav 2, ramming the asteroid fighters is a good way to take them out —but watch out when they drop mines.

ALCOR MISSION 3 (ALC-3)

GAMEFLOW

Conversations   Vagabond (RR)

New Morale Conversations

Vagabond (RR)   *He shouldn't blame himself.*   +1

                  This guy's wrapped way too tight.   −1

MISSION (OPTIONAL)

Briefing   Between missions, Cobra has been clawed on the Flight Deck and is close to dying. She reveals that Hobbes is the traitor who transmitted the *Behemoth* plans to the Kilrathi. Hobbes, in the meantime, has escaped in a Confederation *Thunderbolt*. You can take off and chase him now in a one-on-one battle, or you can let him go and fight him later.

Note: This is an optional mission. If you don't select it, go to Mission ALC-4. If you chase Hobbes, enemy ships attack the Victory *in your absence, and Vaquero dies.*

Wingmen   None

Ship   *Hellcat*

Takeoff/
(B) Nav 2
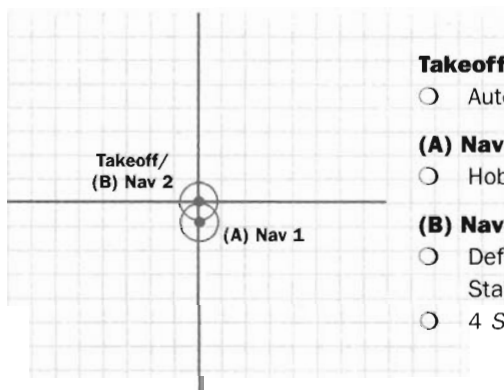
(A) Nav 1

Takeoff

O   Autopilot.

(A) Nav 1

O   Hobbes (*Thunderbolt*).

(B) Nav 2

O   Defend the *Victory* against 4 *Strakha* (including ace, Stalker).

O   4 *Strakha* destroyed > 4 *Paktahn*.

Success

O Kill Hobbes (he won't eject) and all other Kilrathi. Go to Mission ALC-4.

Failure

O Go to Mission ALC-4.

SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)
Darket		
Dralthi		
Strakha	4*	
Vaktoth		
Paktahn		4
Thunderbolt	1	
Corvette		

* Including *Strakha* ace, Stalker.

ANALYSIS

- If you do chase Hobbes, go after him as you did Flash in Mission TAM-3. Activate full guns and arm a full salvo of missiles. Then, afterburn in behind Hobbes and toast him with a few missiles.

- While you're off chasing Hobbes, the *Victory* falls under attack. You shouldn't have a problem taking out the *Strakha* if you've saved some of your FF missiles to this point.

- Against the *Paktahn*, weave back and forth and attack their vulnerable sides. You can't slide in a *Hellcat*, so you'll have to avoid their rear fire and get in what hits you can.

POWER

RECEIVING

VIDEO

TRANSCRIPT
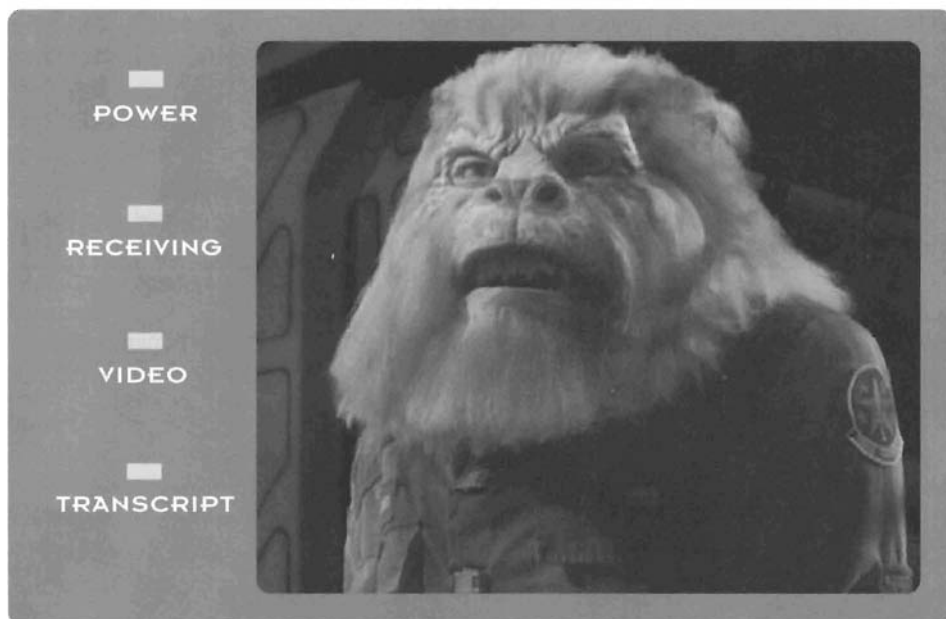
Colonel, I am returning to my Homeworld — but my admiration for you compels me to provide an explanation for my actions ...

You must understand that the Hobbes you knew was a construct, the result of an identity-overlay experiment, initiated long ago by Prince Thrakhath. Lord Ralgha nar Hhallas, you have never truly met. I myself never met him until I heard the Prince utter your Kilrathi title, "The Heart of the Tiger." This was the phrase that triggered my true personality — hidden for so many years. Once awakened by the words of my Prince, I had no choice but to perform his bidding.

Kilrathi do not surrender, nor do we betray. And yet, in being true to my kind, I have betrayed you — for I have watched you, Colonel — know you are an honorable warrior. If we meet again, we will have no choice but to perform our duties with honor.

With honor,

Ralgha nar Hhallas

PLAY

PAUSE

REWIND

SCAN

DELETE

ALCOR MISSION 4 (ALC-4)
GAMEFLOW
Conversations   Eisen (BK), **Vagabond** (RR)
Other New Movies
Eisen (BK)   ALC-4

MISSION
Briefing   The *Victory* slides into elliptical orbit around Alcor V, leaving you to your main objective — to provide cover for the Marines while they rescue Dr. Severin. You must hit the ground targets around the base, including heavy ground vehicles and AAA emplacements. But before you can descend to the planetary surface, you must defeat the enemy air cover in the stratosphere of Alcor V.

Once the fighters are destroyed, you descend to the surface of Alcor V and destroy ground emplacements in and around the prison complex. After you do so, you'll get a *Mission Objectives Accomplished* message and begin your ascension back to the *Victory*. Once you land, the mission is complete.

Note: If you didn't chase Hobbes in Mission ALC-3, Vaquero is still alive, but is now at risk to die.

Wingmen   Flint, Vagabond / **Flash**, Maniac, Vaquero (only alive if ALC-3 not flown)
Ship   ***Excalibur***
Rec. Loadout   Switch out FF missiles for IRs

SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)	C (Nav 3)		D (Nav 4)	E (Nav 5)	
Darket	6						
Dralthi							
Strakha							
Vaktoth							
Paktahn							
Ekapshi		6	4	2		4	2
Tanks			4			6	

Takeoff
- ○ Autopilot, leaving the *Victory* in orbit around Alcor V.

(A) Nav 1
- ○ 6 *Darket*.
- ○ Autopilot down into Alcor V's atmosphere.

(B) Nav 2 (North)
- ○ 6 *Ekapshi*.
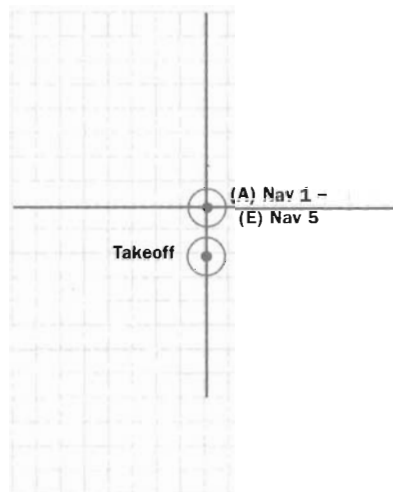
(C) Nav 3 (East)
- ○ 4 *Ekapshi*, 4 enemy tanks, prison complex.
- ○ 4 *Ekapshi* destroyed ﹥ 2 more appear.

(D) Nav 4
- ○ Clear.

(E) Nav 5
- ○ 4 *Ekapshi*, 6 enemy tanks, more buildings.
- ○ 4 *Ekapshi* destroyed ﹥ 2 more appear.
- ○ Autopilot back to the *Victory*.

(A) Nav 1 –
(E) Nav 5

Takeoff

Success
- ○ Destroy all Kilrathi fighters you encounter and destroy all defenses around the prison complex. (The prison buildings are all at Nav 3.) Go to Mission FRY-1.

Failure
- ○ Don't destroy all defenses around the prison complex. Go to Mission PRX/L-1.

ANALYSIS

- Before you take off, be sure you've talked to Vagabond in the Rec Room. He'll tell you all about Dr. Severin, and you'll learn why his combat record is so thin.

- You lose your power settings when you autopilot down to the planet's surface, and again when you come up. Don't forget to reset them.

- The *Ekapshi* at Nav 2 are really tough — the best way to fight them is to keep adjusting your speed. Only chase them if you need to. To shake one off your engines, hit your afterburners, slide, and afterburn back into a 180-degree turn. Then, you'll be in perfect position for a few head-on shots.

- Guns are your best bet for the buildings and tanks — save your missiles for the *Ekapshi*.

- Destroy all the ground tanks before you worry about the buildings. Skim low to the ground with full afterburners, then level out and gun the tanks when they're in range.

- To take out all the buildings at Nav 3, make a low approach and watch out for the mountains. When you're close to a building, stop completely and shoot with full guns activated.

- At the last nav point, you don't have to destroy the tanks or the building. You've already accomplished the mission objectives. (You get the message twice, once for ground targets and once for air targets. Don't return to the *Victory* until you get both messages.)

FREYA SECTOR

Confederation scout ships have identified a jump point leading directly to Kilrah that is currently under enemy control. The *Victory* has been assigned to remove the Kilrathi presence in Freya sector and guard the area until a base can be built to serve as a rallying point for the final assault on Kilrah.

FREYA MISSION 1 (FRY-1)

GAMEFLOW

Conversations   **Maniac** (RR), *Rollins* (LF)

New Morale Conversations

Maniac (RR)	*You're asking for it, man.*	+1
	I don't need this.	−1
Rollins (LF)	*Well, Vagabond had his reasons.*	+1 (Ship)
	Vagabond went way too far.	−1 (Ship)

MISSION

Briefing   Your first task is to remove the Kilrathi presence in Freya. You'll encounter the new class of Kilrathi warship here, their heavy destroyer leader. You're better off taking a sturdy ship, such as the *Longbow*.

Wingmen   **Flint** / Flash, Maniac, Vaquero

Ships   *Arrow, Hellcat, Thunderbolt, Longbow,* **Excalibur**

Rec. Loadout   Load up on IR missiles

SHIPS ENCOUNTERED

	A (Nav 1)		B (Nav 2)		C (Nav 3)	
Darket	2	4			4	
Dralthi			4	4	4	4
Strakha						
Vaktoth						
Paktahn						
Corvette			2			
Hvy. Dest.	1					
Carrier				1		

Takeoff

○ Autopilot.

(A) Nav 1

○ 1 heavy destroyer, 2 *Darket*.

○ 2 *Darket* destroyed > 4 more appear.

(B) Nav 2

○ 2 corvettes, 4 *Dralthi*.

○ 4 *Dralthi* destroyed > 4 more appear.

(C) Nav 3

○ Enemy carrier, 4 *Dralthi*.

○ 4 *Dralthi* destroyed > 4 *Darket*.

○ 4 *Darket* destroyed > 4 *Dralthi*.

○ Autopilot back to the *Victory*.
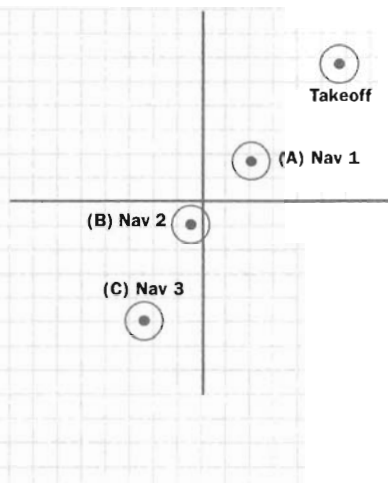
Success

○ Destroy all fighters and capital ships. Go to Mission FRY-2.

Failure

○ Leave any enemy ships alive. Go to Mission FRY-2.

ANALYSIS

- Attack the *Darket* first at Nav 1, then concentrate on the destroyer. To attack it, strafe its side. Retreat in order to let your guns recharge, then afterburn back. Always make your attack to the same side to continue weakening it.

- If your wingman asks for help, tell him to form on your wing. It keeps him alive longer.

- In this mission, don't try to take out the turrets on corvettes. The two ships are so close together that one of them is bound to nail you. Your best bet is to use missiles to destroy one of the corvettes, then take on the other with your guns active.

- If you're in the *Excalibur,* keep your tachyon cannon active, not full guns. You'll get off more high-power shots than you will with all guns.

- At Nav 3, fly inside the carrier and stop. You can toggle on the slide and fire at will. (Your guns will do more damage inside because you don't have to break through the ship's shields.) Keep your finger on the afterburner button and be ready to hit it when the ship is ready to blow. Watch the Right VDU closely—when it's mostly red, make your escape.

Takeoff

(A) Nav 1

(B) Nav 2

(C) Nav 3

FREYA MISSION 2 (FRY-2)
GAMEFLOW
Conversations   *Eisen* (BG), Flint (BK), **Maniac** (RR)
New Morale Conversations
Eisen (BG)*   *Try the hard sell.*   +1 (Ship)

                Try the soft touch.   −1 (Ship)
### Other New Movies
Flint (BK)   FRY-2

* Before your briefing, you find out from Rollins that Vagabond's little escapade landed him in the Brig. With a little persuasion, you can talk Eisen into letting him fly again.

MISSION
Briefing   After takeoff, you finally reach the jump point, but it is enveloped by a shield generated from a nearby planet. To destroy the shield, you must fly the newly shipped *Excalibur* ground fighter down to the planet's surface and blow up the generator. You'll face ground combat and lots of Kilrathi fighters. If the ground assault fails to do the trick, the high command has authorized the use of orbital bombardment.

Wingmen   None (no choice)

Ship   ***Excalibur***
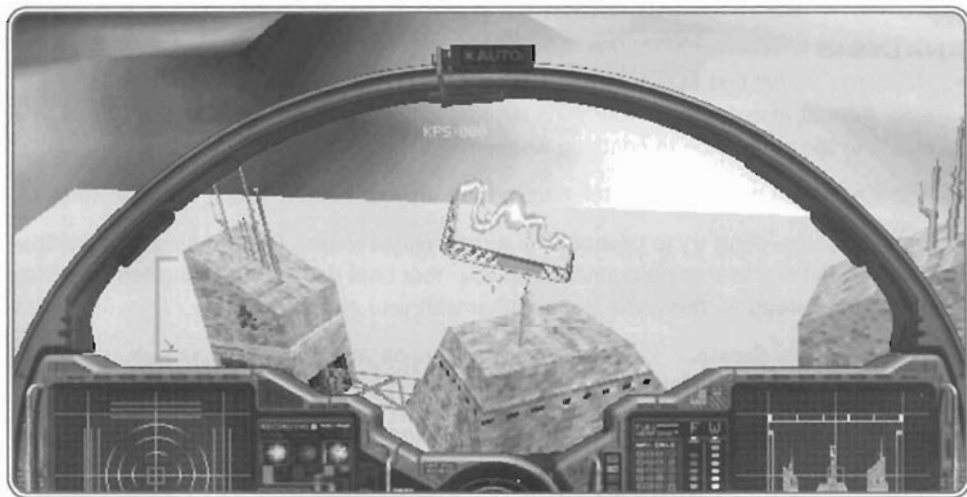
SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)	C (Nav 3)	D (Nav 4)	E (Nav 5)	F (Nav 6)
Darket						
Dralthi	4				2*	2
Strakha						
Vaktoth						
Paktahn						
Ekapshi		4	4	4		

* Only if you destroyed the generator.

Takeoff

   O Autopilot.

(A) Nav 1

   O 4 *Dralthi.*

   O Autopilot to ground.

(B) Nav 2

   O 4 *Ekapshi.*

(C) Nav 3

   O 4 *Ekapshi.*

(D) Nav 4

   O Enemy ground base with generator, 4 *Ekapshi.*

   O Autopilot back up into space.

(E) Nav 5

   O If you destroyed the generator, 2 *Dralthi.*

(F) Nav 6

   O 2 *Dralthi.*

   O Autopilot back to the *Victory.*
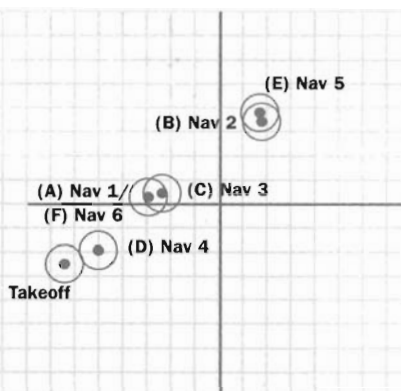
Success

   O Blow up the generator. Go to Mission FRY-3.

Failure

   O Go to Mission FRY-3.

ANALYSIS

• At Nav 2, take out the *Ekapshi* with your missiles.

• The *Excalibur* has a rudimentary altimeter. Keep an eye on it and know where the ground is. If you drop too low, you can crash and die. For the same reason, don't use the Shelton slide much while on the surface —you may run into a mountain.

• At Nav 3, look for a building with a blue electrical arc. This is the enemy generator. Attack it with guns, not missiles. Once you take out the generator, you've won the mission if you make it back alive.

FREYA MISSION 3 (FRY-3)

GAMEFLOW

Conversations   *Eisen* (BG), Flint (BK), Vagabond (RR)

Other New Movies

Vagabond (RR)   FRY-3

MISSION

Briefing   You managed to destroy the ground base, but Kilrathi are still pouring through from the jump point in force. Your fighter group has to hold the jump point against all the incoming Kilrathi—a long, grueling engagement that is necessary to progress in the game.

Wingmen   **Flint**, Vagabond / Flash, Maniac, Vaquero

Ships   *Arrow, Hellcat, Thunderbolt, Longbow,* **Excalibur**
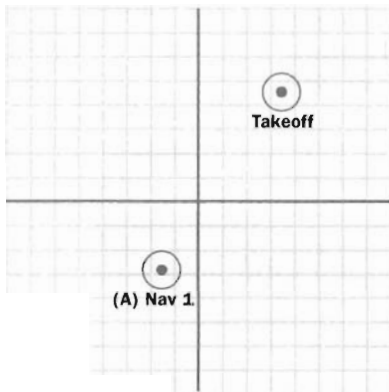
Takeoff

○   Autopilot.

(A) Nav 1

○   Defend the *Victory* from 3 *Dralthi*.

○   3 *Dralthi* destroyed > 1 corvette, 2 *Darket*.

○   Previous wave destroyed > 3 *Darket*.

○   3 *Darket* destroyed > two more appear.

○   Previous wave destroyed > 3 *Vaktoth*.

○   3 *Vaktoth* destroyed > 3 more appear.

○   3 *Vaktoth* destroyed > 3 *Darket*.

○   Autopilot back to the *Victory*.

Success

○ Destroy 75% of the Kilrathi forces (13 ships). Go to Mission HYP-1.

Failure

○ Go to Mission PRX/L-1.

ANALYSIS

- Take care of the fighters with your tachyon cannon. Though the *Excalibur* has plenty of missiles, you're better off saving them for the *Vaktoth* near the end of the mission.

- Don't forget that you can slide in the *Excalibur*. Afterburn toward the corvette and take out the rear super-turret with the usual slide tactic. Once you've done this, you can park behind it and gun for the other turrets, or perform a series of sliding fly-bys.

SHIPS ENCOUNTERED

	A (Nav 1)				
Darket	2	3	2	3	
Dralthi	3				
Strakha					
Vaktoth			3	3	
Paktahn					
Corvette	1				

- Make head-on passes against the lighter fighters and save as much afterburn fuel as you can. That way, if you take heavy damage, you can afterburn away and let your shields and guns recharge.

HYPERION SECTOR

Now that the planet is secure, the Confederation can test a new weapon developed for the sole purpose of destroying an entire planet. But you've got other problems, namely Flint and Rachel. You can choose to be involved with either Rachel or Flint, or brush off both of them. Of course, there's a cost to pay either way.

HYPERION MISSION 1 (HYP-1)
GAMEFLOW

Conversations   **Flint*** (**RR**, LF), **Rachel*** (**RR**, FC)
New Morale Conversations

Talk to Flint first

Flint (RR)	*Kiss her.*	=13 (Flint), =2 (Rachel)
	Take a pass — avoid the trouble.	−1 (Flint)

Don't kiss her, then talk to Rachel

Rachel (RR)	*Kiss her for God's sakes.*	=13 (Rachel), =2 (Flint)
	Ah, I don't think it's a good idea.	−1 (Rachel)

Talk to Rachel first

Rachel (RR)	*Oh, boy, kiss her.*	=13 (Rachel), =2 (Flint)
	It would never work with her.	−1 (Rachel)

Don't kiss her, then talk to Flint

Flint (RR)	*Oh, kiss her.*	=13 (Flint), =2 (Rachel)
	I think it'd be a big mistake.	−1 (Flint)

Other New Movies

Rachel (FC, if Flint kissed)	HYP-1
Flint (LF, if Rachel kissed)	HYP-1

You can choose between Flint and Rachel in the Rec Room (but you can't choose both). If you kiss one of them, the other gets angry with you. Flint will refuse to fly on your wing, and Rachel will quit configuring your loadouts after this mission.

If you choose Rachel, she'll continue to do your loadouts for you, and Flint will get angry at you.

If you choose Flint, her morale goes up and she'll fly better. But, she may die before the game is over. And of course, Rachel will make you configure your own loadouts from this point on.

MISSION

Briefing   Once the *Victory* jumps into Hyperion Sector, you drop to the surface of the planet in your modified *Excalibur* with the weapon of doom (Temblor test bomb) locked and loaded. The Intell reports (during your briefing) said the planet was deserted; Intell was wrong, as you soon find out.
Note: Vagabond is now "at risk" and can die.

Wingmen   None (no choice)

Ship   ***Excalibur***

SHIPS ENCOUNTERED

	A (Inv 1)	B (Nav 1)	C (Nav 2)	D (Nav 3)	E (Nav 4)	F (Nav 5)
Darket						
Dralthi	4					4
Strakha						
Vaktoth						
Paktahn						
Ekapshi			2	2	2	

Takeoff

   ○ Autopilot.

(A) Inv 1

   ○ 4 *Dralthi*.

(B) Nav 1

   ○ Autopilot to ground.

(C) Nav 2

   ○ 2 *Ekapshi*.

(D) Nav 3

   ○ 2 *Ekapshi*.

(E) Nav 4

   ○ 2 *Ekapshi*, ground fault (mission target).
   ○ Autopilot back into space, and then to Nav 5.

(F) Nav 5

   ○ 4 *Dralthi*.
   ○ Autopilot back to the *Victory*.
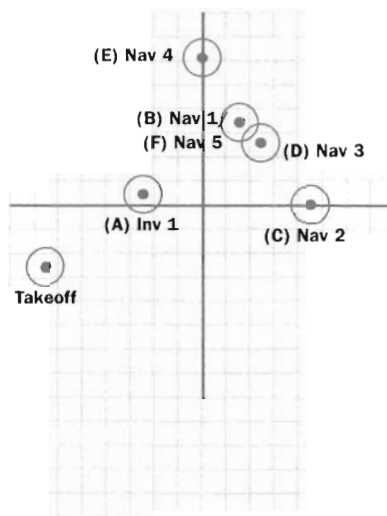
Success

   ○ Launch the Temblor test bomb correctly (at the correct target) and destroy the world. Go to Mission HYP-2.

Failure

   ○ Fail to hit the ground fault with the bomb. Go to Mission PRX/L-1.

ANALYSIS

- If you choose Flint, *be sure* to check the loadout screen before you fly (from now on). If you don't, you'll take off without any missiles at all.

- Your best choice between Flint and Rachel might be "none of the above." Choosing either one embitters the other. Better yet, avoid these scenes altogether—going through them without choosing still lowers each woman's morale by one.

- Of course, even fearless wing commanders have hearts and souls (at least most of them do). How can life be truly fulfilling without a soulmate by your side?

- Save your missiles until you've taken heavy damage or are almost finished with the mission. You've got several *Ekapshi* to shake, and using missiles when you're damaged is less riskier than chasing them down with your guns.

- Take care not to accidentally fire off your Temblor bomb! If you do, you'll fail the mission. It's treated as a missile, so keep a close eye on your Weapon VDU.

- At Nav 4, take out the 2 *Ekapshi* and find the fault line on your radar (it shows up as a yellow-orange dot). Arm the Temblor and lock onto the fault. Stop just in front of the fault, wait for the tone, then drop the Temblor.

HYPERION MISSION 2 (HYP-2)

GAMEFLOW

Conversations   Flash (BK), **Flint*** (**RR**, LF), **Rachel*** (**RR**, FC), **Vagabond** (GC), Vaquero (BG)

New Morale Conversations

Flash (BK)	Have to admit — he's a damn good pilot.	+1
	Boy, is this guy full of himself.	−1
Vagabond (GC)	He really deserves a home.	+1
	He's getting soft!	−1

Other New Movies

Vaquero (BG)   HYP-2 through HYP-3

* Options vary if you kissed either woman in HYP-1. If you chose Rachel, Flint won't appear as a wingman selection. If you chose Flint, Rachel won't appear by the Loadout Terminal.

MISSION

Briefing   You must defend a jump point again, only this time you will be going to Hyperion sector to intercept a Kilrathi fleet before they reach the point. This mission is the first of a series of fleet actions. Your fighter group will protect the capital ships from other fighters and let them (your fleet ships) concentrate on destroying other capital ships.

Wingmen   ·**Flint*** / Flash, Maniac, Vagabond, Vaquero
                * If available. Otherwise, choose Maniac.

Ships   *Arrow, Hellcat, **Excalibur***
Rec. Loadout   3 FF / 3 FF / 3 IR / 3 IR

SHIPS ENCOUNTERED

	A (Nav 1)		B (Nav 2)		C (Nav 3)
Darket	2	2			
Dralthi			2 2	2	2
Strakha					
Vaktoth					
Paktahn				2	2
Lt. Dest.	1				
Cruiser					1
Carrier			1		

Takeoff
○ Autopilot.

(A) Nav 1
○ 2 *Darket*, enemy destroyer.
○ 2 *Darket* destroyed > 2 more appear.
○ 2 more *Darket* destroyed > 2 *Dralthi*.
○ 2 *Dralthi* destroyed > 2 more appear.

(B) Nav 2
○ Enemy carrier, 2 *Dralthi*.
○ 2 *Dralthi* destroyed > 2 more appear.
○ 2 more *Dralthi* destroyed > 2 *Paktahn*.

(C) Nav 3
○ Defend friendly heavy cruiser against 2 *Paktahn*, enemy heavy cruiser.
○ Autopilot back to the *Victory*.

Success
○ Keep the *Victory* and the Confederation cruiser alive. Go to Mission HYP-3.

Failure
○ Let the cruiser die. Go to Mission PRX/L-1.

ANALYSIS
• At Nav 1, take out the *Darket* with your tachyon cannon. Then, let the *Sheffield* take care of the enemy destroyer with a capship missile. Make sure you stay out of the line of fire!

• The same tip goes for the next nav point. Take out the *Dralthi* and let your wingman and the *Coventry* duke it out with the capital ship while you handle the arriving *Paktahn*.

• At Nav 3, get rid of the fighters and let the capital ships battle it out again. This can be quite a fireworks display.
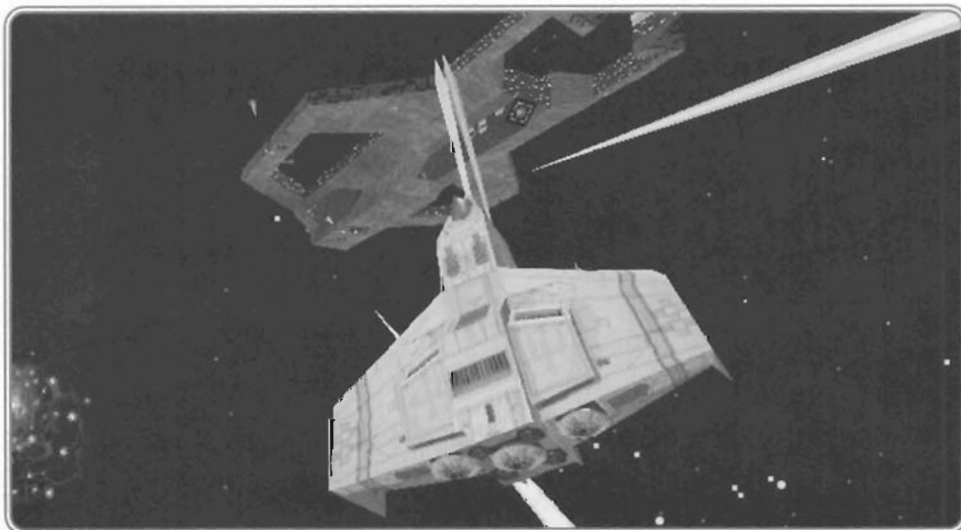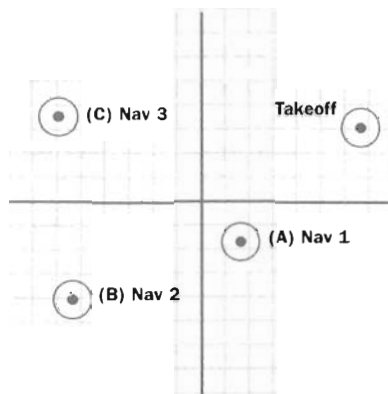
HYPERION MISSION 3 (HYP-3)

GAMEFLOW

Conversations   Flash (BK), **Flint*** (LF, **RR**), **Rachel*** (FC, **RR**), **Vagabond** (GC), Vaquero (BG)

New Morale Conversations

Flint (RR)+   *Give her a shot.*   +1
                I'm not gonna gamble with her life.   −1

* Options vary if you kissed either woman in HYP-1. If you chose Rachel, Flint won't appear as a wingman selection. If you chose Flint, Rachel won't appear by the Loadout Terminal.
+ Only available if you chose Flint and haven't flown with her again on your wing yet.

MISSION

Briefing   The Kilrathi are pressing hard through the jump point, and Freya Sector is under heavy attack. The *Victory* and its escort group must proceed to the Freya point and defend it by running a series of search-and-destroy actions aimed at disrupting the focus of the Kilrathi drive on Freya. Win, and the road to Kilrah is open. Lose, and the war is over.

Wingmen   Flint / Flash, **Maniac**, Vagabond, Vaquero

Ships   Arrow, Hellcat, Thunderbolt, Longbow, *Excalibur*

Rec. Loadout   3 HS / 3 IR / 3 IR / 3 IR
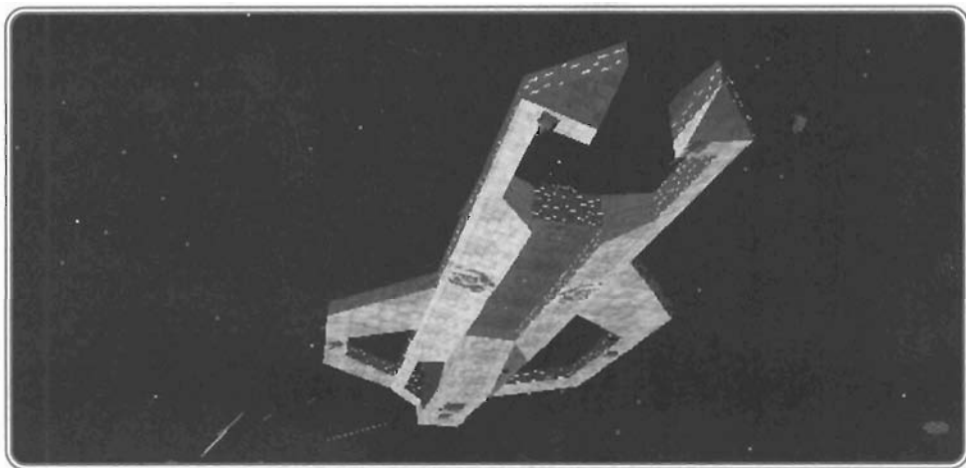
SHIPS ENCOUNTERED

	A (Nav 1)			B (Nav 2)		C (Nav 3)		
Darket	4	4		4		6	5	6
Dralthi		2						
Strakha								
Vaktoth								
Paktahn								
Transport						4		
Cruiser						1		
Hvy. Dest.	1							

Takeoff

○ Autopilot.

(A) Nav 1

○ Enemy heavy destroyer, 4 *Darket*.

○ 4 *Darket* destroyed > 4 more appear.

○ 4 more *Darket* destroyed > 2 *Dralthi*.

(B) Nav 2

○ 4 *Darket*.

(C) Nav 3

○ 6 *Darket*, 4 enemy transports, 1 cruiser.

○ 5 *Darket* destroyed > 5 more appear.

○ Last original *Darket*, other 5 destroyed > 6 more appear.

○ Autopilot back to the *Victory*.
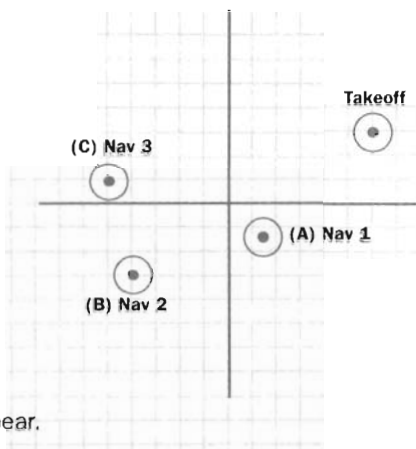
Success

○ Destroy 75% of the Kilrathi at each nav point. Go to Mission KIL-1.

Failure

○ Go to Mission PRX/L-1.

ANALYSIS

- Use your tachyon cannon on the capital ships.

- Conserve your missiles for the destroyer, cruiser and transports.

- Cruiser method #1: When attacking the cruiser at Nav 3, position yourself to the ship's rear at about 10,000 km out. You'll be outside the range of its guns. Then, afterburn in to under 500 km and start to slow down. If you can sneak in right behind the cruiser's rear engine, it won't be able to shoot at you. You can then fire at will or launch several missiles. As soon as you hear its death cry, spin around and make tracks away from the explosion.

- Cruiser method #2: If you're more of the daredevil type, take advantage of the *Excalibur's* slide capability. (With sliding *and* plenty of missiles, you should definitely choose this ship.) Afterburn by the ship's side, slide and try to knock out the turrets. Once they're gone, you're assured of a capital ship kill.

INTO KILRAH

Paladin discloses various details about Angel's final mission, including the discovery of a seismic anomaly in the crust of the Kilrathi homeworld. This information was deciphered by Confederation Intelligence from Angel's last transmission during her covert operation on Kilrah. This discovery leads to a "long shot plan" that might yet save the Confederation.

Under this plan, R&D has long been developing a device that could be deployed, via a single fighter, directly onto the surface of Kilrah. The resulting impact, if delivered precisely on a strategic fault line, could effectively level every structure on Kilrah's surface.

After handing the Kilrathi forces defeat on several critical fronts, the *Victory* is finally ready to take this secret weapon, the Temblor bomb, into Kilrathi territory.

This last series is actually a single mission, divided into three parts—two depot landings, a space battle involving Thrakhath, then a descent to the surface of Kilrah. (Each of the three parts has a separate analysis.) You're to carry the Temblor and drop it into a geographic fault. If you succeed, the Kilrathi homeworld will be blown out of existence. If you fail, you'll be forced to retreat to Earth, where both you and the *Victory* die.

KILRAH MISSION 1 (KIL-1)
GAMEFLOW
Conversations   None (you go directly into the briefing)

MISSION
Briefing	This mission marks the beginning of the run to Kilrah. You (in the *Excalibur*) and your wingmen will travel through several jump points to reach a refueling/rearming depot. This new station was planted deep in Kilrathi territory several weeks earlier by Paladin's covert forces. You must push on to the depot and remove any Kilrathi presence to complete the mission.
	Note: Flint is now "at risk" and can die.
Wingmen	None / *Flash, Flint, Maniac, Vagabond, Vaquero
	* Take the three wingmen with the highest morale (except Flint, if you want her to live). They'll fly better.
Ship	***Excalibur***
Rec. Loadout	3 FF / 3 FF / 3 IR / 3 IR

SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)	C (Nav 3)	D (Nav 4)	E (Nav 5)
Darket		4		3 1 6	
Dralthi		4	6		
Strakha			6		
Vaktoth					
Paktahn					
Sorthak	2				
Corvette		2	2		
Light Destroyer				1	

Takeoff

○ Autopilot.

(A) Nav 1

○ 2 *Sorthak*.

○ Jump through the jump point (press J).

(B) Nav 2

○ 2 enemy corvettes, 4 *Darket*.

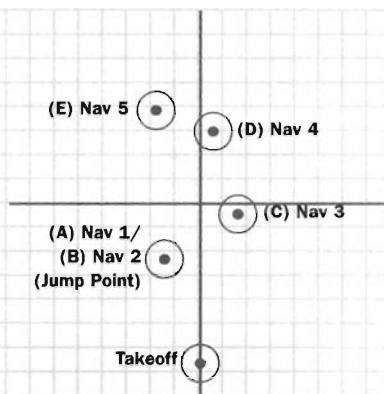○ 4 *Darket* destroyed > 4 *Dralthi*.

(C) Nav 3

○ 2 enemy corvettes, 6 *Dralthi*.

○ 4 *Dralthi* destroyed > 6 *Strakha*.

(D) Nav 4

○ 3 *Darket*, 1 enemy destroyer.

○ 3 *Darket* destroyed > 1 more appears.

○ Lone *Darket* destroyed > 6 more appear.

(E) Nav 5

○ Locate the refueling depot and request clearance to land.

(E) Nav 5 · (D) Nav 4 · (C) Nav 3 · (A) Nav 1/(B) Nav 2 (Jump Point) · Takeoff

Success

○ Hit all nav points leading to the depot, destroying any enemy fighters along the way. Go to Mission KIL-2.

Failure

○ Eject. Go to Mission PRX/L-1.

ANALYSIS

• During each leg of the run to Kilrah, you'll lose one wingman out of whoever's left. You get to choose three wingmen for this run (assuming you have that many left). If you chose Flint over Rachel and want to see her alive again, don't choose her.

• All of your wingmen will follow your orders in this mission (yes, even Maniac). Don't hesitate to assign targets or call for help. Just don't send them back to base…unless you're hot enough to fly this one solo.

• In this entire series, you have to reset your power and weapons after each leg of the mission if you want them to be different from the default.

• At each nav point, assign all surviving wingmen to one corvette. They'll be able to destroy it quickly, and without taking as much damage.

• To land on the depot, keep an eye out for a large dot on your radar. The depot itself looks like a large asteroid. Target it and request clearance to land. If you flew a successful leg of the mission, you're granted clearance.

• If you make it to the depot and save your game, you won't have to replay this part of the mission even if you die later.

KILRAH MISSION 2 (KIL-2)

GAMEFLOW

Conversations   A holo-message from Paladin

MISSION

Briefing   Fight your way through to a second depot and land to rearm and refuel.
Wingmen   Those who survived KIL-1
Ship   *Excalibur*
Rec. Loadout   3 FF / 3 FF / 3 IR / 3 IR
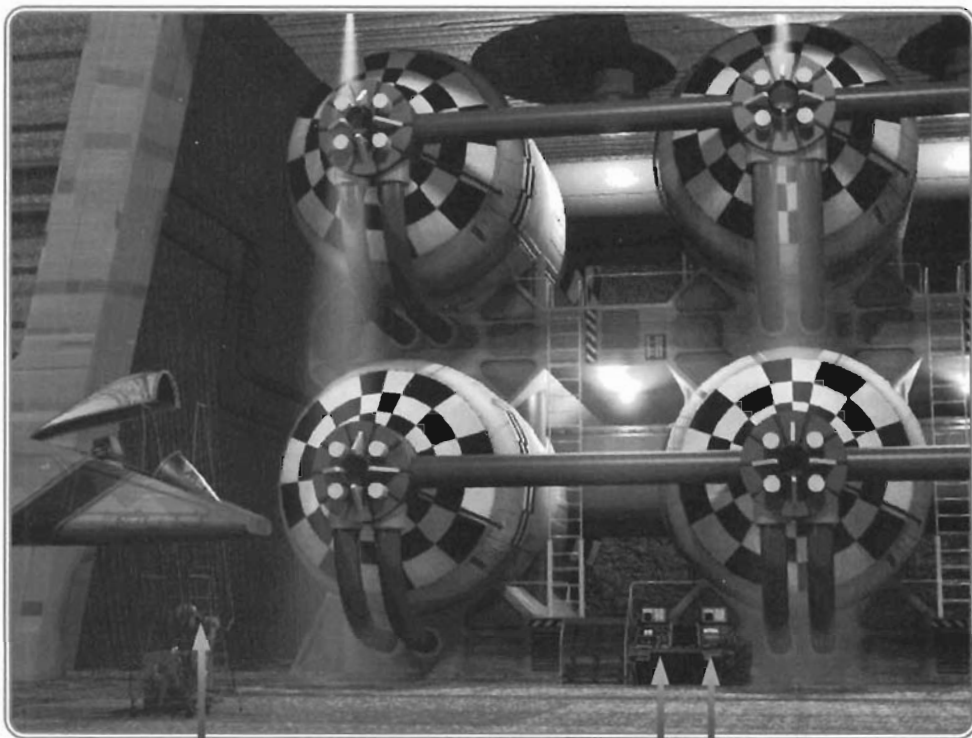
Leave — REFUELING DEPOT   Activate — REFUELING TERMINAL   Activate — LOADOUT TERMINAL

	A (Nav 1)	B (Nav 2)	C (Nav 3)	
SHIPS ENCOUNTERED				
Darket	4		6	
Dralthi	4			
Strakha		6	1	
Vaktoth	4			
Paktahn				
Sorthak		3	1	
Corvette	2	2		
Lt. Destroyer		1		

Asteroid Field (Continued from Mission KIL-1)
○ Autopilot.

(A) Nav 1
○ 4 *Darket*, 2 enemy corvettes.
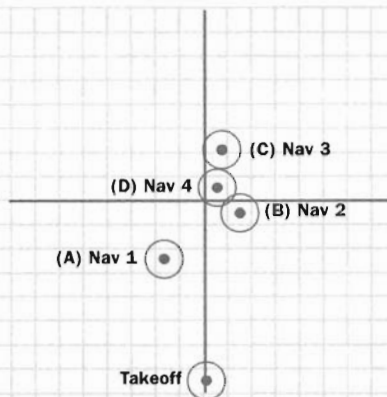○ 4 *Darket* destroyed > 4 *Dralthi*.

(B) Nav 2
○ 4 *Vaktoth*, 2 enemy corvettes.
○ 4 *Vaktoth* destroyed > 6 *Strakha*.

(C) Nav 3
○ 3 *Sorthak*, 1 *Strakha*, 1 enemy destroyer.
○ 3 *Sorthak* destroyed > 1 more appears.
○ Previous waves destroyed > 6 *Darket* appear.
○ Autopilot to the second depot.

(D) Nav 4
○ Request clearance to land on depot.

(C) Nav 3
(D) Nav 4
(B) Nav 2
(A) Nav 1
Takeoff

Success
○ Make it through to the depot and destroy all enemies there before landing. Go to Mission KIL-3.

Failure
○ Eject. Go to Mission PRX/L-1.

ANALYSIS

- You've got a loadout terminal on the depot. Once you're set up, click LEAVE REFUELING DEPOT to take off.

- Don't forget to reallocate your power distribution after takeoff.

- At all nav points, you should concentrate on eliminating the fighters first. Send all remaining wingmen after a single corvette. They'll be able to destroy it much more quickly, and will probably take less damage in the process. If you mop up the fighters before all capital ships are destroyed, afterburn in and give your wingmen a hand.

- Once the fighters are gone at Navs 1 and 2, take out the shields of any surviving corvettes with the tachyon cannon, then launch a few missiles for the killing blow. Save a couple for the destroyer at Nav 3, but don't be afraid of blowing too many missiles on this mission—your stash gets reloaded again when you land on the next depot. Likewise, your ship gets repaired.

KILRAH MISSION 3 (KIL-3)
GAMEFLOW
Conversations   A holo-message from Paladin

MISSION
Briefing   The last leg takes you directly to Kilrah, where you must take on Thrakhath (and possibly Hobbes) in a face-to-face battle above its atmosphere. If you succeed, you'll then descend to the planet. The final stage of the mission consists of fighting *Ekapshi* atmospheric fighters, then dropping the Temblor Bomb into a planetary fault to win the game.

Note: If you didn't chase Hobbes when he escaped in Mission ALC-3, or failed to kill him then, he reappears and flies a Thunderbolt *on Thrakhath's wing.*

Wingmen   Any who survived KIL-2
Ship   ***Excalibur***
Rec. Loadout   6 IR / 1 Temblor / Cloaking Device

SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)	C (Nav 3)	D (Nav 4)	E (Nav 5)
Darket			3 6	4	
Dralthi	4	4			
Strakha		6	6*		
Vaktoth					
Paktahn	4			2	
Bloodfang				1	
Thunderbolt				1**	
Ekapshi					2 2 2 ...
Hvy. Destr.	1	1	1		

* Including ace, Stalker (even if you defeated him earlier).

** Hobbes (if still alive) is flying the *Thunderbolt* he took during his escape.

Asteroid Field (Continued from Mission KIL-1)

○ Autopilot.

(A) Nav 1

○ 4 *Darket*, 2 enemy corvettes.

○ 4 *Darket* destroyed > 4 *Dralthi*.

(B) Nav 2

○ 4 *Vaktoth*, 2 enemy corvettes.

○ 4 *Vaktoth* destroyed > 6 *Strakha*.

(C) Nav 3

○ 3 *Sorthak*, 1 *Strakha*, 1 enemy destroyer.

○ 3 *Sorthak* destroyed > 1 more appears.

○ Previous waves destroyed > 6 *Darket* appear.

○ Autopilot to the second depot.

(D) Nav 4

○ Request clearance to land on depot.

Success

○ Make it through to the depot and destroy all enemies there before landing. Go to Mission KIL-3.

Failure

○ Eject. Go to Mission PRX/L-1.

ANALYSIS

- You've got a loadout terminal on the depot. Once you're set up, click LEAVE REFUELING DEPOT to take off.

- Don't forget to reallocate your power distribution after takeoff.

- At all nav points, you should concentrate on eliminating the fighters first. Send all remaining wingmen after a single corvette. They'll be able to destroy it much more quickly, and will probably take less damage in the process. If you mop up the fighters before all capital ships are destroyed, afterburn in and give your wingmen a hand.

- Once the fighters are gone at Navs 1 and 2, take out the shields of any surviving corvettes with the tachyon cannon, then launch a few missiles for the killing blow. Save a couple for the destroyer at Nav 3, but don't be afraid of blowing too many missiles on this mission—your stash gets reloaded again when you land on the next depot. Likewise, your ship gets repaired.

KILRAH MISSION 3 (KIL-3)
GAMEFLOW
Conversations   A holo-message from Paladin

MISSION
Briefing   The last leg takes you directly to Kilrah, where you must take on Thrakhath (and possibly Hobbes) in a face-to-face battle above its atmosphere. If you succeed, you'll then descend to the planet. The final stage of the mission consists of fighting *Ekapshi* atmospheric fighters, then dropping the Temblor Bomb into a planetary fault to win the game.

Note: If you didn't chase Hobbes when he escaped in Mission ALC-3, or failed to kill him then, he reappears and flies a Thunderbolt *on Thrakhath's wing.*

Wingmen   Any who survived KIL-2
Ship   ***Excalibur***
Rec. Loadout   6 IR / 1 Temblor / Cloaking Device

SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)	C (Nav 3)	D (Nav 4)	E (Nav 5)
Darket			3 6	4	
Dralthi	4	4			
Strakha		6	6*		
Vaktoth					
Paktahn	4			2	
Bloodfang				1	
Thunderbolt				1**	
Ekapshi					2 2 2 ...
Hvy. Destr.	1	1	1		

* Including ace, Stalker (even if you defeated him earlier).

** Hobbes (if still alive) is flying the *Thunderbolt* he took during his escape.

(A) Nav 1

○ 1 enemy heavy destroyer, 4 *Paktahn*.
○ 4 *Paktahn* destroyed > 4 *Dralthi* appear.

(B) Nav 2

○ 1 enemy heavy destroyer, 4 *Dralthi*.
○ 4 *Dralthi* destroyed > 6 *Strakha*.

(C) Nav 3

○ 1 enemy heavy destroyer, 3 *Darket* (all Veterans—see p. 49).
○ 3 *Darket* destroyed > 6 *Darket* (including a Veteran).
○ Cloak once the last *Darket* dies (press Ctrl C). If you don't, the waves of *Strakha* are endless, and you eventually die. Also, see first **Analysis** note.
○ 6 *Strakha* appear if any wingmen live. (This includes an ace, Stalker, who regenerates until your last wingman is dead.)
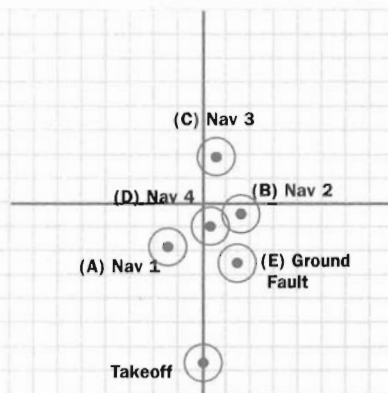
(D) Nav 4

○ 2 *Paktahn*, Prince Thrakhath (in his *Bloodfang*), possibly Hobbes (in a *Thunderbolt*).
○ 2 *Paktahn* destroyed > 4 *Darket*.
○ Autopilot to descend to Kilrah.

(E) Nav 5 (Fault)

○ Cloak (press Ctrl C) as soon as you drop out of autopilot.
○ 2 *Ekapshi*. This wave regenerates continuously until you release the Temblor bomb.
○ Drop Temblor bomb into fault.

Success

○ Destroy Thrakhath (and Hobbes, if present).
○ Survive and drop the Temblor Bomb into the planetary fault.

Failure

○ Don't release the Temblor bomb, face endless waves of *Ekapshi*, and eventually die.

ANALYSIS

• Your last wingman will die in this leg of the mission, unless you send him back to base. If you want him to live, be sure to send him back *before* you cloak the first time.

• This is the one mission in the game where you're allowed to use your *Excalibur's* cloaking device. You cloak twice—once in space, and then again on the planet.

• Consult your map at every nav point and read the text box for each point. This tells you when you must cloak (you must do so at Nav 3, and again at Nav 5). Cloaking temporarily turns the game screen black-and-white.

• Save as much afterburn fuel as you can during your orbital battles. You'll need all of it when you descend to the planet.

• At Nav 1, use your tachyon cannon against the *Paktahn*—it shouldn't take more than 2 shots.

- Be careful not to fire the Temblor by accident. Disarm it until you get to the ground.

- Activate cloaking just after you complete your autopilot descent to Kilrah. If you don't, you'll have a difficult time dropping the bomb.

- You can't fire guns or missiles while cloaked.

- Ignore all ships other than Thrakhath and Hobbes. This includes capital ships, which don't have any bearing on whether or not you win the mission.

- The first thing to do after you cloak is locate Thrakhath. Maneuver in behind his ship while cloaked, then uncloak and waste him with a full salvo of missiles or full guns.

- After Thrakhath dies, chase Hobbes down with the tachyon cannon. Once both of these aces are destroyed, you descend to the planet.

- On Kilrah, do this:
    1. *Activate cloak a second time.*
    2. *Select and arm the Temblor bomb.*
    3. *Max out your speed and lock your ship on full throttle.*
    4. *Follow the white nav cross (be careful to climb above the mountains). Eventually, you'll see the fault as a dot on your radar.*
    5. *Target the fault and lock onto it.*
    6. *Wait for the lock tone, then stop about 300km away from the fault.*
    7. *Uncloak and fire the bomb, then punch your afterburners to escape the* Ekapshi *(and Kilrah's shock wave after the planet explodes).*

WINNING ENDGAME

You win the game by defeating Hobbes and Thrakhath and successfully dropping the Temblor bomb on a ground fault on Kilrah. After watching the entire planet explode, your ship is tractored aboard an enemy carrier that is orbiting the Kilrathi homeworld. You're brought before Melek (Thrakhath's cowardly sidekick), who delivers an emotional surrender. After a long debriefing and many congratulations, you head back to Earth for your first vacation in a peaceful universe.

And, depending on your romantic choices during the game, you may even have a companion traveling with you. If you chose Rachel, she'll be along for the ride. If you chose Flint (and if she survived), you'll have her in the seat next to you. Or, if you turned both of them down, you will be alone.
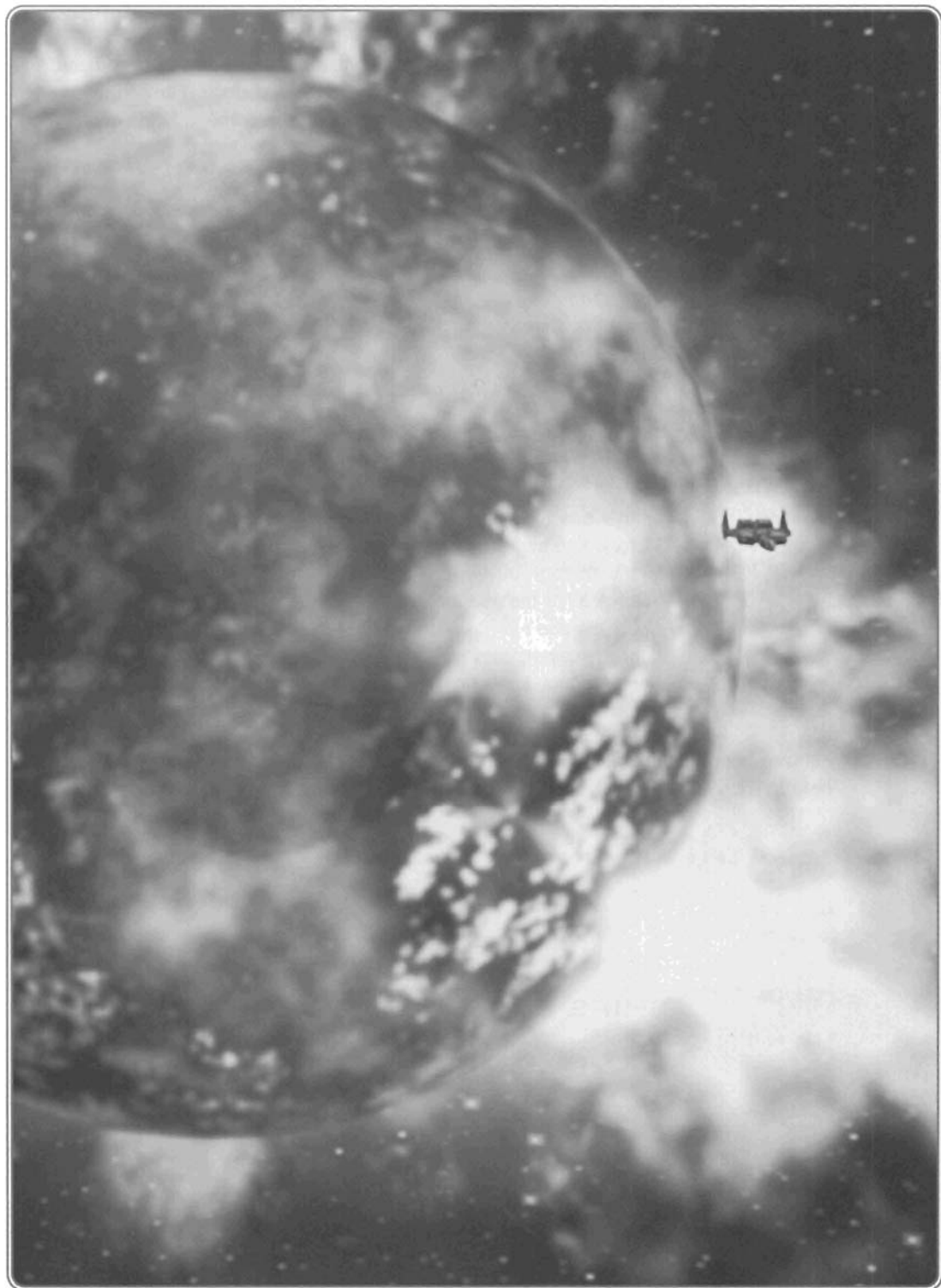
TAMAYO SYSTEM

Since you failed to penetrate the defenses in Orsini, the *Victory* has been ordered into Tamayo system to disrupt Kilrathi operations there. On the way, Jace "Flash" Dillon, a test pilot recently transferred from Vega Sector Research and Development, lands onboard with a prototype version of the *Excalibur* heavy fighter.

TAMAYO MISSION 1 (TAM/L-1)
GAMEFLOW
Conversations   Eisen, Hobbes (BG), **Flash** (FD), *Flint/Maniac* (GC)

New Morale Conversations

Flash (FD)	*That's true.*	+1, −1 (Ship)
	This kid's a smartass.	−1, +1 (Ship)
Flint/Maniac (GC)	*They're right.*	+1 (Ship)
	Play it by the book.	−1 (Ship)

Other New Movies

Eisen, Hobbes (BG) TAM/L-1

MISSION

Briefing   In this mission, you don't search out the Kilrathi — they come to the *Victory*. Enemy fighters will swarm and attack the carrier. This will result in the *Victory* leaving the system and failing the mission unless you destroy all of the attackers.

Note: You don't get to choose your wingman here—all pilots are deployed during an emergency scramble.

Wingmen   None (scramble mission)

Ship   ***Arrow***

SHIPS ENCOUNTERED

	T (Takeoff)			
Darket	2	2	2	
Dralthi		2		
Strakha				
Vaktoth				
Paktahn	2	2	2	2

Takeoff

- ○ 2 *Darket*, 2 *Paktahn*.
- ○ Previous wave destroyed > 2 more waves appear.
- ○ Third wave destroyed > 2 *Dralthi*, 2 *Paktahn*.

Takeoff
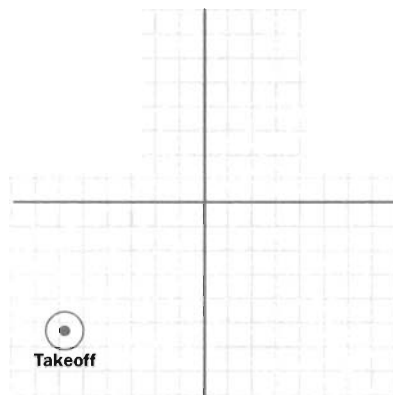
Success

- ○ Destroy all enemy fighters. Go to Mission TAM/L-2.

Failure

- ○ Fail to destroy all fighters. *Victory* is destroyed (game over) or takes severe damage (go to Mission TAM/L-2).

ANALYSIS

- If you're an expert flier, leave the *Darket* and attack the *Paktahn* first. The light fighters will try to distract you, allowing the bombers to sneak in and attack the carrier. Once you've taken out the bombers, your fleet is fairly safe.

- If you're a novice and would rather take on light fighters, let your wingmen soften up the *Paktahn* first. Then, go in for the kill--you'll get the credit, but not the damage taken by your wingmen.

- Be wary of the highly accurate rear turrets on the *Paktahn*. When fighting them, position your ship behind them and slide back and forth and shoot your guns. Or, go head-on, then break to one side and slide before shooting.

- Fire IR missiles at the *Paktahn*. Or, if you can launch behind them, use a Heat Seeker.

TAMAYO MISSION 2 (TAM/L-2)
GAMEFLOW
Conversations   Flash (BK), **Rachel (RR)**

New Morale Conversations

| Rachel (RR) | *Wow! I'd love to fly that ship.* | +1 |
| | *Stay clear of trouble ...* | −1 |

Other New Movies

Flash (BK)   TAM/L-2

MISSION

Briefing   The Kilrathi mount a second wave in their attack on Tamayo system, strik-ing the planet Tamayo II. The attack fleet includes a large number of enemy transports guarded by Kilrathi fighters. If you allow the transports to reach the planet, you lose. You have to punch through heavy fighter cover and open the transports up to attack by the *Victory*.

Once you clear a path, the *Victory* launches 3 intercept groups. Your group is directly responsible for eliminating fighters at Nav 1; then con-tinue to the other nav point to help the *Victory* destroy the transports.
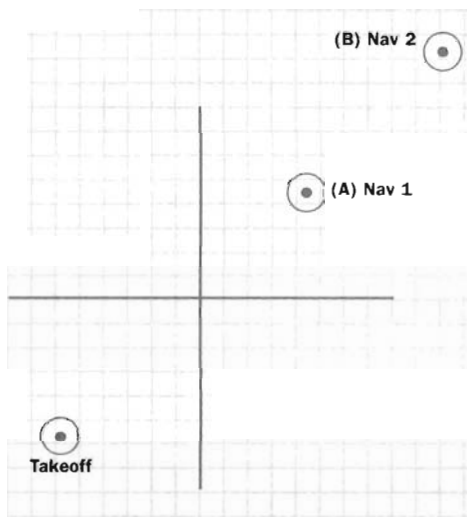
Note: Once again, you don't get to choose your wingman.

Wingmen   None (Scramble mission)

Ship   Arrow, Hellcat, Thunderbolt, Longbow, **Excalibur** *(if available)*

Takeoff

O   Autopilot.

(A) Nav 1

O   4 *Vaktoth*, 1 enemy corvette.

O   4 *Vaktoth* destroyed > 4 *Darket*.

O   4 *Darket* destroyed > 4 *Dralthi*.

(B) Nav 2

O   4 transports.

Success

O   Destroy 3 out of 4 transports attacking Tamayo II at Nav 2. Go to Mission TAM/L-3 (if you accept Flash's challenge) or Mission LOC-1.

Failure

O   Go to Mission PRX/L-1.

SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)
Darket	4	
Dralthi		4
Strakha		
Vaktoth	4	
Paktahn		
Corvette	1	
Transport		4

TAMAYO MISSION 3 (TAM/L-3)

GAMEFLOW

Conversations   *Flash* (**FD**, also FC if you accept Flash's challenge), Eisen (FC, if you accept Flash's challenge)

New Morale Conversations

Flash (FD)	*This punk's not worth it.*	+1, −1 (Ship)
	Time to teach this punk a lesson.	−1, +1 (Ship)

Other New Movies

Eisen (FC)   TAM/L-3

MISSION (OPTIONAL)

Briefing   As squadron commander, you call Flash down for being a prima donna hotshot who refuses to follow orders, and you agree to a challenge in the simulator at high noon to see who has his hand on the biggest stick.

Wingmen   None (Simulator mission)

Ship   *Arrow*

(*Simulator*) Takeoff

    ○ Fly against Flash (who's also flying an *Arrow*).

Success

    ○ Beat Flash in the simulator. Go to Mission LOC-1.

Failure

    ○ Go to Mission PRX/L-1.

Plot Paths

    Win TAM/L-2 *and* 3 > go to Mission LOC-1.

    Lose Mission TAM/L-2 *or* 3 > go to Mission PRX/L-1.

ANALYSIS

- If you lose this challenge, ship morale drops by 4. If you win, morale improves by 2.

- See the tips for Mission TAM-3, p. 84.

BLACKMANE SECTOR

The *Victory* has been ordered to Blackmane Sector to assist in the evacuation of the base, then to hold position to ensure the safety of convoys already en route for the base before when it was declared an indefensible strategic location.

BLACKMANE MISSION 1 (BLK/L-1)
GAMEFLOW

Conversations   Eisen (BG), **Flint** (FD), **Rachel** (FD), Rollins (FC)

New Morale Conversations

Flint (FD)	*Give her a break.*	+1
	Ground her.	−1
Rachel (FD)	*She understands.*	+1
	It's none of her business.	−1

Other New Movies

| Eisen (BG) | BLK/L-1 through BLK/L-3 |
| Rollins (FC) | BLK/L-1 through BLK/L-3 |

MISSION

Briefing	Your first mission is to escort evacuation ships from the base to a near-by jump point, where Kilrathi attack fighters are waiting.
Wingmen	**Cobra**, Flash, Flint, Hobbes, Maniac, Vagabond, Vaquero
Ships	*Arrow*, Hellcat, Thunderbolt

SHIPS ENCOUNTERED

	A (Nav 1)
Darket	
Dralthi	2 1 1 1 1 1 1
Strakha	
Vaktoth	
Paktahn	
Carrier	1

Takeoff
- ○ Autopilot.
- ○ Link with 3 friendly transports.
- ○ Autopilot, along with 3 friendly transports.

(A) Nav 1
- ○ Defend transports against 1 enemy carrier, 2 *Dralthi*.
- ○ Each *Dralthi* destroyed > 1 more appears (up to 6 more)
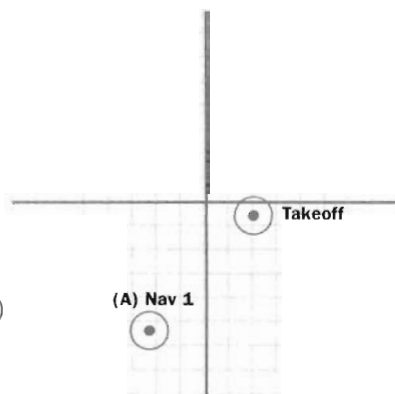
Success
- ○ Lose no more than one evacuating ship. Go to Mission BLK/L-2.

Failure
- ○ Go to Mission BLK/L-2.

ANALYSIS
- Before you can autopilot with the transports, you need to link with them and synchronize your autopilot system with theirs. To do this, fly by the transports (without hitting them, of course).

- Stick close to your transports — if you stray too far while chasing down an enemy, you'll let other fighters through to them.

... despite Confederation denials, TNC now has independent confirmation that the population of Locanda IV has been all but wiped out — victims of Kilrathi germ warfare ... And unconfirmed reports suggest that this is not the first time the Kilrathi have unleashed bioweaponry on Confederation civilians ...

TNC NEWSBRIEF TEXT FEED

PLAY

PAUSE

REWIND

SCAN

DELETE
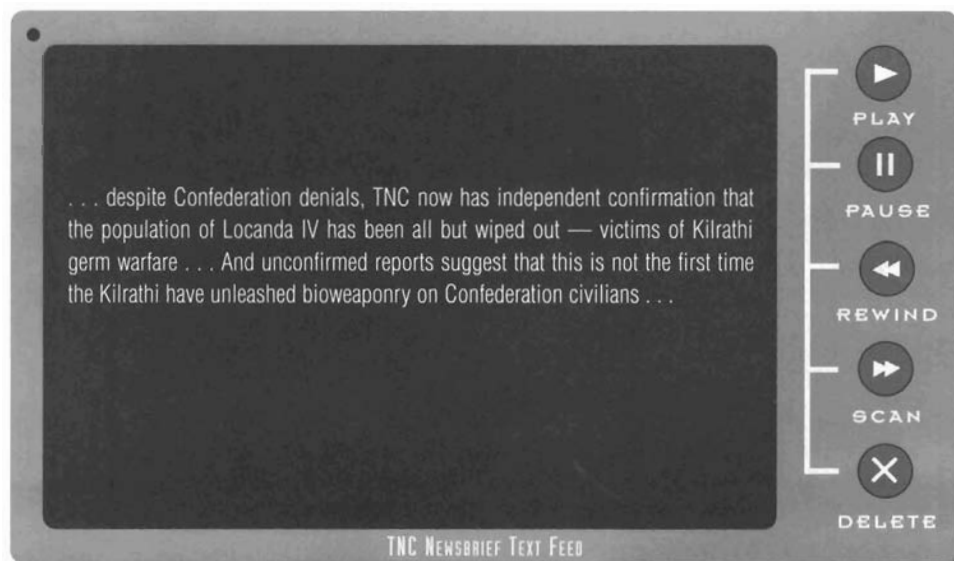
BLACKMANE MISSION 2 (BLK/L-2)

GAMEFLOW

Conversations   Eisen (BG), **Maniac** (BK), **Rachel** (FD), Rollins (FC)

New Morale Conversations

Maniac (BK)	*He's jealous.*	+1
	It's none of his business.	−1

MISSION

Briefing   You must meet and escort a convoy from one jump point to another, without losing too many of them to the increasing numbers of Kilrathi raiders in Blackmane Sector. The target jump point is in the shadow of a planet orbiting a pulsar. Try to stay in the shadow, or your ship will take damage.

Wingmen   Cobra, Flash, Flint, Hobbes, Maniac, **Vagabond**, Vaquero

Ships   ***Arrow***, Hellcat, Thunderbolt
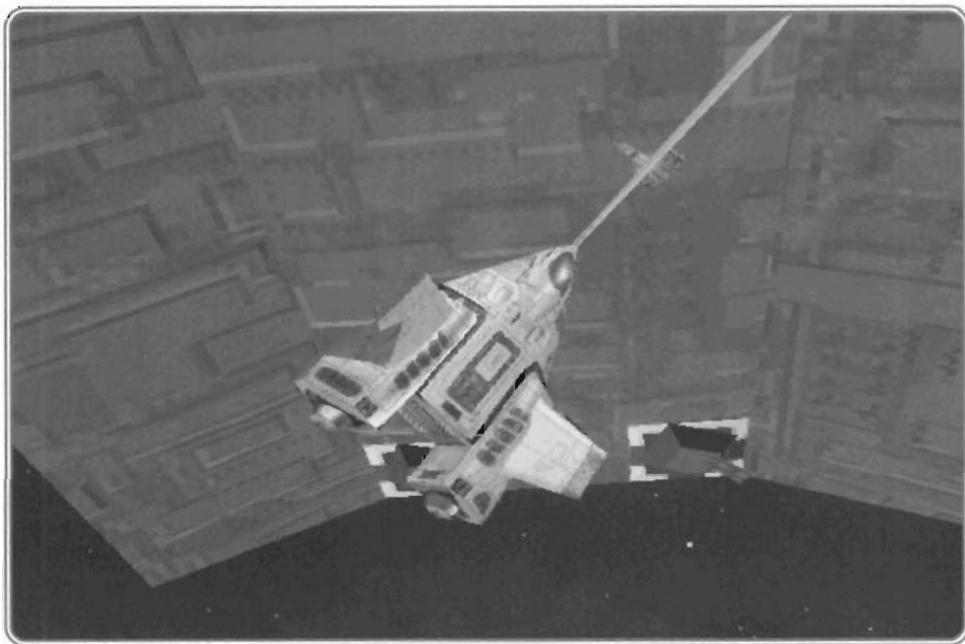
SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)	C (Nav 3)
Darket			
Dralthi		3 3	3 3
Strakha	4		
Vaktoth			
Paktahn			

Takeoff

○ Autopilot.

(A) Nav 1

○ Rendezvous with 3 transports.

(B) Nav 2

○ 4 *Strakha*.

(C) Nav 3

○ Stay in the pulsar shadow.

○ 3 *Dralthi*.

○ 3 *Dralthi* destroyed > 3 more appear (total of 12, in 4 waves).

○ Watch the transports safely jump out.

○ Autopilot back to the *Victory*.
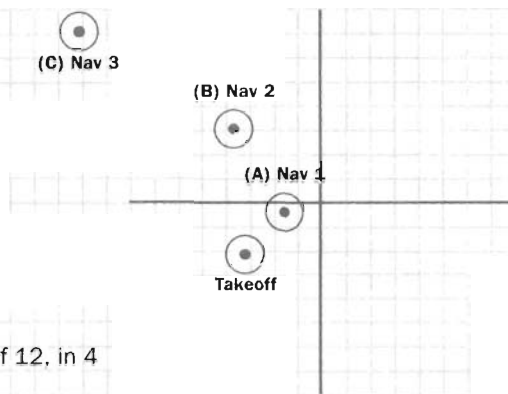
Success

○ Lose no more than one transport ship out of the convoy. Go to Mission BLK/L-3.

Failure

○ Go to Mission BLK/L-3.

ANALYSIS

- Don't worry about linking with the transports at Nav 1 until you've eliminated the *Dralthi*. There's no time limit on getting hooked up with them.

- *Strakha* won't cloak when they're behind you.

(C) Nav 3

(B) Nav 2

(A) Nav 1

Takeoff

. . . in other news from the front, we at TNC have confirmation of a strategic withdrawal from outlying confederation sectors. Confed sources suggest this is part of a larger operation to give up sectors of minor importance — in the hope the Kilrathi will spread themselves too thinly across the galaxy, but <independent> sources suggest there is little strategy behind the withdrawals: only an improvised response to the advance of the enemy. This is Barbara Miles with a TNC InfoBurst.

PLAY

PAUSE

REWIND

SCAN

DELETE

TNC Newsbrief Text Feed

BLACKMANE MISSION 3 (BLK/L-3)

GAMEFLOW

Conversations   Eisen (BG), **Flint** (GC), **Maniac** (BK), **Rachel** (**FD**), Rollins (FC)

New Morale Conversations

Flint (GC)	*Put her back on the roster.*	+1
	Let the captain decide.	−1

MISSION

Briefing   The base has been overtaken, and the Kilrathi are swarming. One last convoy trapped in Blackmane sector has to make a break through the screen of enemy fighters and jump out. You are to do a fly-by of the convoy to establish communications, then escort the transports to the jump point. Unbeknownst to you, however, this convoy has been captured and rigged by the Kilrathi. Once you fly close enough to a freighter, it detonates. As the explosion fades, four Kilrathi *Strakha fighters* uncloak and attack you.

Wingmen   **Cobra**, Flint, Flash, Hobbes, Maniac, Vagabond, Vaquero

Ships   *Arrow*, Hellcat, Thunderbolt
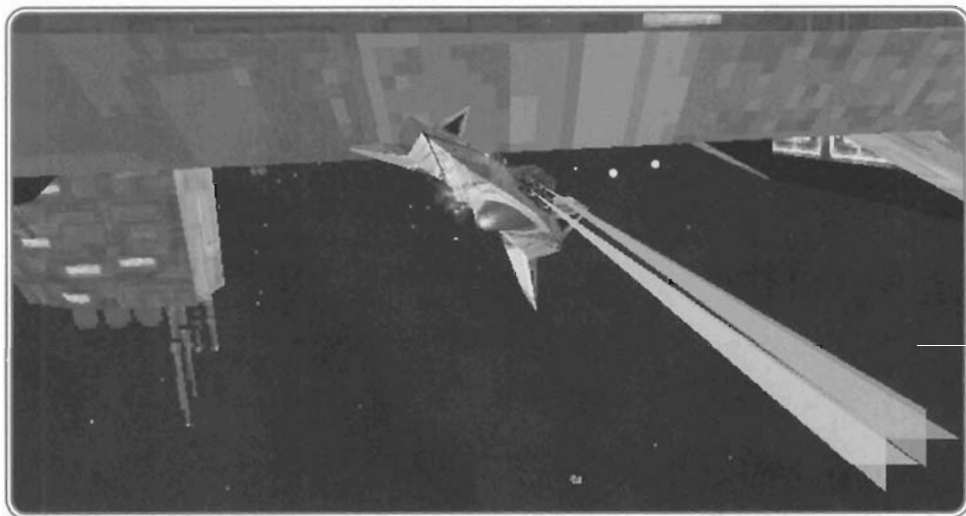
SHIPS ENCOUNTERED

	A (Inv 1)	B (Nav 1)	C (Nav 2)
Darket			
Dralthi			
Strakha	4	4	4
Vaktoth			
Paktahn			
Transports	2*		

* Kilrathi traps disguised as friendly transports.

Takeoff

- O Autopilot.

(A) Inv 1

- O 4 *Strakha*.

(B) Nav 1

- O Rendezvous with 2 friendly transports. (They are decoys and will explode.)
- O 4 *Strakha* uncloak.
- O 4 *Strakha* destroyed — 4 more appear.
- O Autopilot to the *Victory* (at a new location).
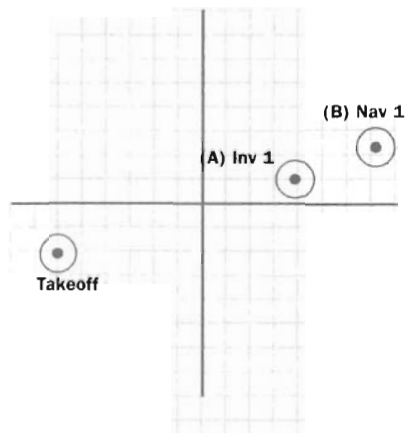
(C) Nav 2

- O Land on the *Victory*.

Success

- O Kill the cloaked ships and cruise back to the jump point. If you lost BLK/L-1 or 2, go to PRX/L-1. Otherwise, go to Mission ARI-1.

Failure

- O Go to PRX/L-1.

ANALYSIS

- If you grounded Flint, put her back on the Flight Roster. Otherwise, Eisen will do this for you, and her morale won't be raised a point.

- Take the *Arrow*—it's a good choice for protection missions, and it's fast.

- Use IR or FF missiles on the *Strakha*—they'll target the nearest uncloaked enemy.

- If you get really damaged, wait to autopilot, and dump your power to damage repair. This is a good tactic if you've already cleared all Kilrathi out of your current nav point.

Highly placed sources within Confed Command indicate that reports from a solar shadow ring station of a possible jump point formation event within the Tanhauser nebula have reportedly attracted the attention of the Confederation Intelligence Division [CID]. With CID shadows reportedly en route, it remains doubtful that the free flow of information will continue for much longer.

PLAY

PAUSE

REWIND

SCAN

DELETE

TNC NEWSBRIEF TEXT FEED
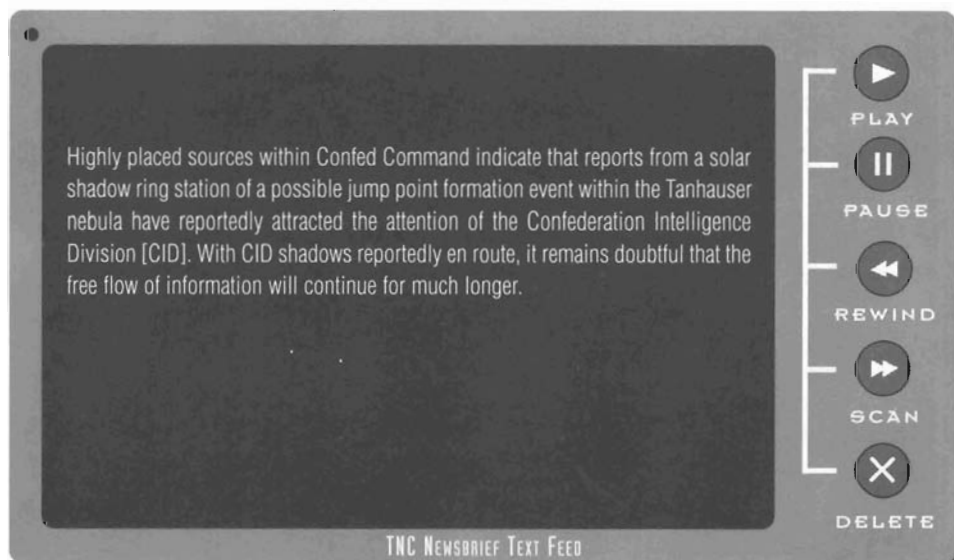
DELIUS ASTEROID BELT

The *Victory* has been ordered into the Delius asteroid belt to reduce the Kilrathi presence defenses there. You are to find the enemy asteroid base and eliminate any fighter cover. Intell doesn't know much about it, other than that it looks like a large asteroid. Once you find the base, the *Victory* will take over and attack it.

DELIUS MISSION 1 (DEL/L-1)

GAMEFLOW

Conversations **Cobra** and **Hobbes** (FD), Flash (BK), **Maniac** (GC)

New Morale Conversations

Cobra/Hobbes (FD)	*Stick up for Hobbes.*	+1 (Hobbes), −1 (Cobra)
	Play along with her.	+1 (Cobra), −1 (Hobbes)
Maniac (GC)	*Rag him.*	+1
	Hey — it's tough for both sides.	−1

Other New Movies

Flash (BK)   DEL/L-1 through DEL/L-3

MISSION

Briefing   Your fighter group is assigned to conduct a search-and-destroy operation in the asteroid field. During your flight, you'll encounter the Kilrathi base — with the recommended ordnance and a good eye, you should be able to destroy it.

Wingmen   **Cobra**, Flash, Flint, Hobbes, Maniac, Vagabond, Vaquero

Ships   *Arrow*, Hellcat, Thunderbolt, Longbow

SHIPS ENCOUNTERED

	A (Nav 1)		B (Nav 2)		C (Nav 3)	D (Nav 4)
Darket					2	
Dralthi			3	3	2	
Strakha						
Vaktoth	4	2				4
Paktahn						
Base	1					

Takeoff
- ○ *Victory*, 2 escort destroyers.

(A) Nav 1
- ○ Enemy asteroid base, 4 *Vaktoth*.
- ○ 4 *Vaktoth* destroyed > 2 more appear.

(B) Nav 2
- ○ 3 *Dralthi*.
- ○ 3 *Dralthi* destroyed > 3 more appear.

(C) Nav 3
- ○ 2 *Dralthi*.
- ○ 2 *Dralthi* destroyed > 2 *Darket*.

(D) Nav 4
- ○ 4 *Vaktoth*.
- ○ Land on the *Victory*.
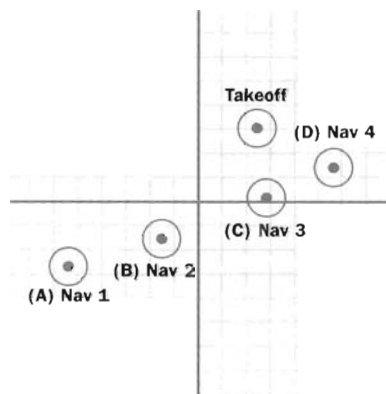
Success
- ○ Destroy all capital ships and eliminate fighter support around the base. Go to Mission DEL/L-2.

Failure
- ○ Go to Mission DEL/L-2.

ANALYSIS

- Take out the enemies as fast as you can. This clears the way for the *Victory* to attack and destroy the asteroid base.

- The purpose of this series is to find the Kilrathi asteroid base. As soon as you do this and eliminate its defending fighters, you've won the series.

... stock markets across The Confederation took a nosedive with reports that an incursion deep into Kilrathi territory resulted in heavy losses, including classified offensive weaponry that had been years in development. Unconfirmed reports had suggested development of a secret weapon that could end the war. But other sources are now extremely pessimistic about concluding this seemingly endless conflict.

▶ PLAY
II PAUSE
◀◀ REWIND
▶▶ SCAN
✕ DELETE

TNC NEWSBRIEF TEXT FEED

DELIUS MISSION 2 (DEL/L-2)
GAMEFLOW
Conversations   Flash (BK), **Flint** (FC), **Maniac** (GC)
New Morale Conversations

Flint (FC)	*It's tough getting old.*	+1
	He's better off there.	−1

MISSION
Briefing   Having discovered the asteroid base, Eisen decides to intercept the inevitable arrival of enemy reinforcements to the base in Delius. Your fighter group will patrol the area around the Delius' jump point and destroy all inbound ships. Try sowing mines around the jump point (use the bomber class craft) and let the inbound fighters and ships hit them on the way in. On the way back to the *Victory*, you'll be jumped by the remaining fighters from Delius base.

Wingmen   **Cobra**, Flash, Flint, Hobbes, Maniac, Vagabond, Vaquero
Ships   *Thunderbolt*, **Longbow**
Rec. Loadout Switch out HS and FF missiles for IRs
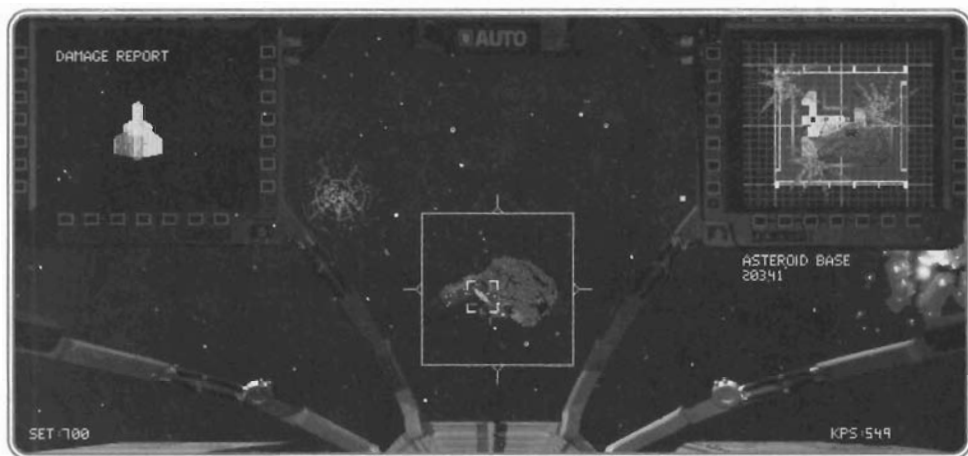
SHIPS ENCOUNTERED

	A (Nav 1)	B (Nav 2)	C (Nav 3)	
Darket		4		
Dralthi	4		2	4
Strakha				
Vaktoth			2	2
Paktahn				
Sorthak			1	
Corvette	1		1	
Lt. Destroyer		1		
Base		1		

Takeoff
- ◯ Autopilot

(A) Nav 1
- ◯ 1 enemy corvette, 4 *Dralthi*.

(B) Nav 2
- ◯ 4 *Darket*.

(C) Nav 3
- ◯ Locate enemy asteroid base.
- ◯ Enemy destroyer, 2 *Dralthi*.
- ◯ Previous wave destroyed > 1 enemy corvette, 2 *Vaktoth*.
- ◯ 2 *Vaktoth* destroyed > 2 *Vaktoth*, 1 *Sorthak* appear.
- ◯ Previous wave destroyed > 4 *Dralthi*.
- ◯ Land on the *Victory*.
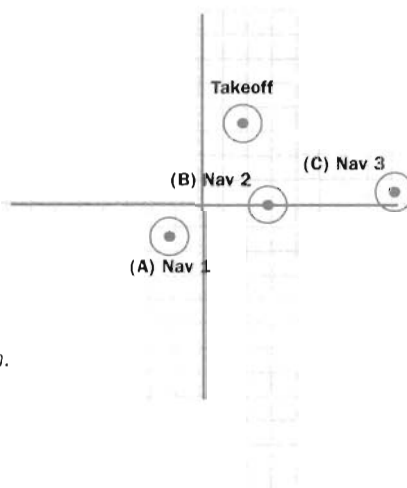
Success
- ◯ Prevent any enemy capital ships from retreating and destroy all enemy fighters at the asteroid base. Go to Mission DEL/L-3.
  Note: If the base is destroyed, go to Mission TOR-1 instead.

Failure
- ◯ Don't destroy all capital ships and fighters around the base. Go to Mission PRX/L-1.

ANALYSIS

- Try sowing mines around the jump point and let the inbound fighters and cap ships hit them on the way in.

- Send your wingman after the destroyer at Nav 3, while you take care of the fighters.

- If you're flying the *Longbow*, display your rear turret view in the Left VDU (Ctrl F4) to keep an eye on your tail.

The Trafalgar Outerworlds have reported a devastating outbreak of disease that has already affected in excess of four percent of the system's population and shows no signs of decreasing. The disease vector is believed to be human blood, and large portions of the system's blood supply could be infected. Until a way can be found to filter the agent from the blood supply, or new supplies reach Trafalgar, Disease Control expects mortality rates to increase rapidly.

Though censored by Confed Command, this broadcast channel has suggested that because the outbreak began only recently, after the latest Kilrathi attack, there exists the possibility that the disease is only the latest bioengineered weapon in a constant series of Kilrathi offensives.

PLAY

PAUSE

REWIND

SCAN

DELETE

TNC NEWSBRIEF TEXT FEED

DELIUS MISSION 3 (DEL/L-3)

GAMEFLOW

Conversations   Flash (BK), **Flint** (FC), Hobbes (FD), **Maniac** (GC)

Other New Movies

Hobbes (FD)   DEL/L-3

MISSION

Briefing   The asteroid base somehow survived the last attack. In this follow-up mission, you escort the *Victory* as it moves in to destroy the asteroid once and for all, hampering Kilrathi rebuilding efforts in the Delius Asteroid Belt.

Wingmen   Cobra, Flash, Flint, Hobbes, Maniac, **Vagabond**, Vaquero

Ships   *Arrow*, Hellcat

Takeoff

    ○   Autopilot.

(A) Inv 1

    ○   2 *Darket*.

(B) Inv 2

    ○   2 *Darket*.

(C) Nav 1

    ○   Enemy asteroid base, 2 *Dralthi*.
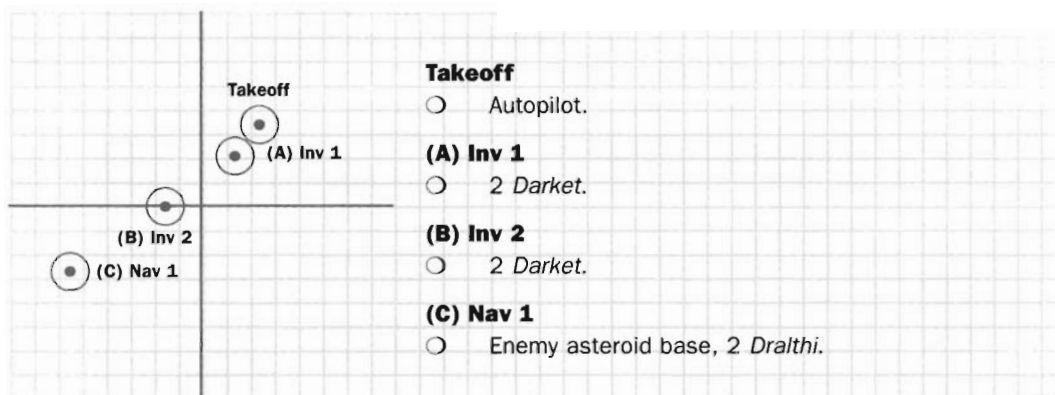
Success

    ○ Clear out all enemy ships so that the *Victory* can destroy the asteroid base. Go to Mission TOR-1.

Failure

    ○ Land on the *Victory* with enemy fighters still alive. Go to Mission PRX/L-1.

ANALYSIS

- See the tips for Missions DEL/L-1 (p. 161) and DEL/L-2 (p. 163).

SHIPS ENCOUNTERED

	A (Inv 1)	B (Inv 2)	C (Nav 1)
Darket	2	2	
Dralthi			2
Strakha			
Vaktoth			
Paktahn			
Base			1

PROXIMA SECTOR

The war is going badly, and Confederation troops are being pushed back on all fronts. It's up to you to get the *Victory* and its forces back on the right track. If you don't, Earth itself faces an imminent, hostile takeover. (Unfortunately, by this point your efforts will be too little, too late.) Since you failed the previous series of missions, you and the fighter group are ordered to fall back to Proxima sector to defend a jump point to Sol.

PROXIMA MISSION 1 (PRX/L-1)
GAMEFLOW

Conversations   None

MISSION

Briefing   None to speak of, unless you count Eisen's depressing speech. You can die here, or listen to Eisen and land aboard the *Victory*. (You will fly Mission PRX/L-2 if you land.) The fleet then travels back to Earth to die at home.

Wingmen   Cobra, Flash, Flint, Hobbes, **Maniac**, Vagabond, Vaquero
Note: Some wingmen may already be vulnerable, depending on what series you played before you arrived here.

Ships   Arrow, Hellcat, Thunderbolt, Longbow, **Excalibur**

Rec. Loadout   Switch out FF and HS missiles for IRs

Victory (Takeoff)

○ Endless numbers of Kilrathi fighters.

○ Land on *Victory* when Eisen says the fleet is withdrawing.

Success

○ None. Land aboard the *Victory* and retreat to Earth. Go to Mission PRX/L-2.

Failure

○ Stay and fight, and eventually die.

ANALYSIS

• Replay an earlier mission so that you can get back on the winning track. If you insist on playing this mission, land aboard the *Victory* and return to Earth.

SHIPS ENCOUNTERED

	A (Takeoff)
Darket	*
Dralthi	*
Strakha	*
Vaktoth	*
Paktahn	*
Sorthak	*

* Infinite waves of ships appear until you eject, die or land on the *Victory*.

PROXIMA MISSION 2 (PRX/L-2)

GAMEFLOW

Conversations   None

MISSION

Briefing   At the end of the previous mission, you landed aboard the *Victory* and traveled back to defend Earth. This mission marks the final battle, which takes place around Sol. Kilrathi forces keep arriving, in all shapes and sizes, until they overcome whatever hope the Confederation has managed to maintain to this point. In a last-ditch effort, or perhaps for revenge, Eisen takes out a battlewagon by ramming it. For you, the war is over ...

Wingmen   Cobra, Flash, Flint, Hobbes, **Maniac,** Vagabond, Vaquero

Ships   *Arrow, Hellcat, Thunderbolt, Longbow,* ***Excalibur***

Rec. Loadout   Switch out FF and HS missiles for IRs

Note: Some wingmen may already be vulnerable, depending on what series you played before you arrived here.

* Infinite waves of ships appear until you eject or die.

Takeoff

○ Endless numbers of Kilrathi.

Success

○ None possible.

Failure

○ Die fighting, or be tractored aboard to die on Thrakhath's carrier. Watch the arrival of Kilrathi ships as they take over Earth.

ANALYSIS

- Replay an earlier mission to return to the winning track.

- There's no winning this mission. But, you should at least eject and get tractored aboard Thrakhath's ship. The movie's pretty interesting, and you get to choose how you die.

SHIPS ENCOUNTERED

	A (Takeoff)
Darket	*
Cralthi	*
Strakha	*
Vaktoth	*
Paktahn	*
Sorthak	*

* Infinite waves of ships appear until you eject or die.

LOSING ENDGAMES

#1 — YOU DIE

If you die during combat, you have two options: REPLAY the mission or CONTINUE. Choosing REPLAY restarts the mission in the Hangar. Choosing CONTINUE takes you to the funeral scene and the game credits (unless you press [Esc] to skip them). With its best hope of survival gone, the Terran Confederation falls under Kilrathi control. An impressive armada moves into Sol System and proceeds to drop eradication troops on Earth.

#2 — COURT MARTIAL

You know it's against TCN policy to fire against your own kind. If you manage to accidentally or purposefully kill off any of your wingmen, Eisen meets you on the Flight Deck with several military policemen. You're escorted off the ship and placed in a holding facility until you receive your court martial. But look at the bright side — at least you won't have the chance to be gutted by Thrakhath.

#3 — YOU CHASE THRAKHATH (LOK-3)

When Thrakhath shows you the gruesome holovid of Angel's death, you have the option of chasing him down or landing aboard the *Victory* before it jumps sector. You'll have exactly 90 seconds to make up your mind, and Rollins isn't kidding when he says this is your last chance to land. Even if you stay and kill Thrakhath, you remain stranded in space. No one's around to come pick you up.

#4 — VICTORY DIES (HYP-2)

Outnumbered by the forces at Kilrah, you and your fighter group retreat to Proxima Sector to defend a major jump point that leads to the Terran homeworlds. You've come a long way, and you have reason to be proud if you've made it this far. Unfortunately, your forces are too small to hold back Thrakhath and his troops.

#5 — EARTH'S LAST STAND (PRX/L-1 OR 2)

War is hell, and you and the *Victory* barely survived the previous mission. With massive ship and pilot casualties, your squadrons are unable to defend the current fleet position. Finally, you decide to land aboard the *Victory,* and the fleet retreats to Earth. Unfortunately, this leaves the jump point in Proxima Sector open and makes a full-blown Kilrathi attack on Earth imminent. All available Terran forces brace for the onslaught (which occurs in Mission PRX/L-2).

In Mission PRX/L-2, the battle doesn't go much better. In fact, it's the last mission any way you look at it. If you survive long enough, you'll see Eisen's final war effort as he valiantly rams the *Victory* into a Kilrathi capital ship. Even though he's vastly outnumbered, he's going to take as many enemy cap ships with him as he can. You might as well say a prayer for all crewhands onboard.

If you eject at any time, you're tractored aboard Thrakhath's carrier, where he offers you a chance to plead for your life.

Even though he gives you a "choice," Thrakhath plans to kill you no matter what you say. If you tell him "Screw you," he slashes out at you and guts you to death. You also have the option of hanging your head and saying, "You've won, Prince Thrakhath..." In this case, you are disintegrated by the guards standing behind you.

SIMULATOR MISSIONS

MISSION SIM-1

Ship   **Arrow** (default loadout)
Objective   Fly to one nav point and destroy a single *Darket*.

Start

◯ Autopilot.

Nav 1

◯ 1 *Darket*.

- The first part of the mission is easy. Autopilot. The rest of the mission is simple if you like using missiles —just fire off a full salvo when you have the *Darket* targeted.

- Or, take him head-on with *Full Guns* activated. If that doesn't take him out, try a single missile.

- If you prefer to practice your dogfighting skills, chase him around with a single gun and make use of the Y feature (to match his speed). This method takes longer, but you're sure to improve your aim if you can keep up with the *Darket's* sporadic afterburns.

MISSION SIM-2

Ship   **Arrow** (default loadout)
Objective   Fly to one nav point with a wingman and destroy 2 *Darket*.

In this mission, you and a wingman autopilot to a nav point, only to discover 2 *Darket*. Your wingman automatically peels off to do his own thing.

Start

◯ Autopilot.

Nav 1

◯ 2 *Darket*.

- Use the same tactics described in Mission SIM-1. Since your wingman is concentrating on the second fighter, you're essentially flying the same mission. With more traffic.

MISSION SIM·3

Ship   ***Hellcat*** (default loadout)

Objective   Rendezvous with a transport at the first navigational point. Escort the transport to a jump point and wait for it to jump out. This is as simple as it gets—you don't have to do any fancy flying or face any enemies.

Start

○ Autopilot.

Nav 1

○ Rendezvous with the transport by flying close to it.
○ Autopilot with transport to jump point.

Nav 2

○ Watch the transport jump out.

- Sidle up next to the transport and give it time to ID your ship. When you get the okay, autopilot to the jump point and wait for the transport to jump out.

- If you get really bored, do a fly-by of the transport's cargo hold (the "rack" on which cargo is strapped). You can shoot off the turret guns and cargo if you want a little target practice. The transport ship won't be damaged if you don't hit the main body—in fact, it doesn't even realize you're shooting at it.

MISSION SIM·4

Ship   ***Hellcat*** (default loadout)

Objective   Rendezvous with a transport at the first navigational point. Escort the transport to a jump point, defend it against enemy fighters, and wait for it to jump out.

Start

○ Autopilot.

Nav 1

○ 2 *Darket*.
○ Rendezvous with the transport by flying close to it.
○ Autopilot with the transport to jump point.

Nav 2

○ 2 *Dralthi*.

- This mission is almost identical to Mission SIM-3, except that you face two enemy ships at the jump point.

- You don't have a wingman to help you out at Nav 2, but you do have afterburners. Use them to shake the *Darket* off your tail.

- Your shields and firepower are slightly superior to those of a *Dralthi*. Take them head-on if you're good at evading front-fire, or try nailing them with several missiles.

MISSION SIM-5

Ship　　　　　***Thunderbolt*** (default loadout)
Objective　　Fly to jump point, avoiding asteroids.

Start

　○ Autopilot.

Nav 1

　○ Jump buoy.

- There's nothing to this mission, unless you enjoy shooting asteroids. As long as you don't use full afterburners, you shouldn't be in much danger of hitting one.

- Once you get to the jump buoy, you've finished the mission. Not a good targeting practice mission, unless you enjoy vaporizing asteroids.

MISSION SIM-6

Ship　　　　　***Thunderbolt*** (default loadout)
Objective　　Fly to jump point, avoiding asteroids. Engage enemy fighters that jump through.

Start

　○ Autopilot.

Nav 1

　○ Jump buoy.
　○ 2 *Dralthi*.
　○ 2 *Darket*.

- Since you're in a *Thunderbolt*, you can face the *Darket* head-on without taking too much damage.

- Against a *Dralthi*, you're better off using occasional afterburn bursts to tail him. Match his speed, then try to shoot at the I.T.T.S. leader gunsight. It shouldn't take more than 4 to 5 successive shots to bring down a *Dralthi*.
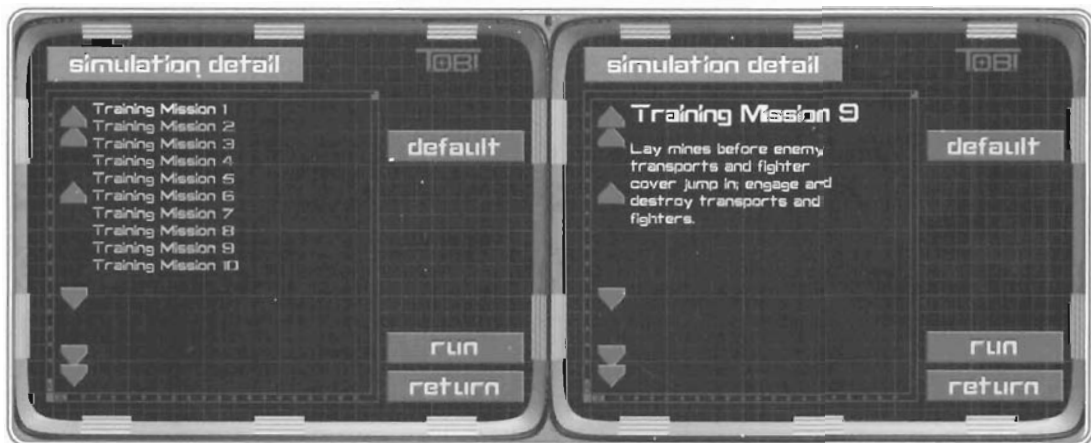
MISSION SIM-7

Ship   *Longbow* (default loadout)
Objective   Fly to a nav point and engage an enemy corvette.

Start

○ Autopilot.

Nav 1

○ 1 corvette.

* Position your ship behind the corvette at about 10,000 kilometers out, then match its speed. You'll be out of gun range, but within missile range. Unleash a full salvo.

* To use your guns against the corvette, afterburn straight toward the center rear super-turret. You'll need to eliminate this one first.

* Once the center turret is gone, stay as close as possible to the corvette's rear engines. If you're positioned right, the top and bottom turrets can't reach you. You can then take out the turrets (two on top, two on bottom).

* Finally, back off and unload continuous gunfire until you hear its death cry. Be sure to afterburn away quickly before it blows.

MISSION SIM-8

Ship   *Longbow* (default loadout)
Objective   Fly to a nav point and engage 2 *Darket* and an enemy corvette.

Start

○ Autopilot.

Nav 1

○ 2 *Darket*, 1 corvette.

* The first thing you need to do is eliminate the fighters.

* Once the *Darket* are out of the way, you can concentrate your fire on the corvette. Use the tips given in Mission SIM-7.

MISSION SIM-9

Ship   **Longbow** (default loadout)
Objective   Fly to a jump point and lay mine traps for transports and fighters that appear. Attack and destroy all enemy ships.

Start
○ Autopilot.

Nav 1
○ Jump buoy (fly within 100km to activate, then lay all mines you have onboard).
○ 2 transports, 1 *Darket*, 1 *Dralthi*.

- Once you get to the jump point, fly close to it and release your mines. Try to spread them out so that they're not concentrated in one spot. With any luck, the enemy ships will jump out right on top of them.

- Any enemy fighters that get through the mines should be easy to take out with your guns. Don't forget that you have a rear turret gun — this mission is a good place to practice with it.

- If the transports happen to bypass the mines, blaze in with full guns. The shields on transports are relatively weak and can't withstand a lot of hits. If you like target practice, try taking out the dual turrets on each transport before blowing up the ship.

MISSION SIM-10 (GAUNTLET)

Ship   **Hellcat** (default loadout)
Objective   Destroy as many enemy ships as possible in 10 minutes.

Nav 1
○ Jump buoy.
○ 2 *Darket*.
○ 2 *Dralthi*.
○ 2 *Vaktoth*.
○ 2 *Paktahn*.
○ 4 *Dralthi*.
○ Repeat previous waves with 4 ships apiece.

- The best tip for this mission is to use full guns when you're starting out, and save all your missiles for the tough ships. Since you only have ten minutes, you don't want to waste time chasing down *Paktahn* or *Vaktoth*. Use your missiles on them, or when you've taken heavy damage.

MAKING
WING COMMANDER III

MAKING WING COMMANDER III

Stepping into the ORIGIN building is a bit like beginning a tour of Willy Wonka's Chocolate Factory. It looks charmingly peculiar with its brightly colored walls at odd angles, askew doorways and out-of-place columns. Glass cases in the bright, two-story lobby contain curios of past and future games: a World War II navigation map, a cyborg faceplate, an hourglass and magic talisman. There are even the skeletal remains of some long-forgotten guest still sitting in the "Waiting Room." Beneath it all, however, is an undercurrent of serious game-making.

The most "serious" undertaking to date was conceived, incubated and brought to light behind the dark purple maze of walls on the second floor. It is the third installment of the successful *Wing Commander* series.

If you were to walk from the lobby through the cafeteria, past the full bank of free arcade games (*Tron, Stargate, Defender, Joust, Robotron* and the always popular pinball machine), you'd find a short passageway that leads to a bright yellow, circular cul-de-sac. On one curving wall is the door to the stairs. One floor up and you enter into a hallway with walls tilted as though they were designed by a carnival architect. At the far end is a beverage bar with free-flowing coffee, hot chocolate and other forms of caffeine. That serves as the fueling station for the team that created ORIGIN's interactive space-flight adventure.

On the wall around the corner is a foam-board chronicle of the creation of *Wing III*, the project that cost over four million dollars, involved hundreds of people and spanned nearly two years in the making. Affixed to that board are examples of nearly every stage of the creation: from sketches to screenshots, from white and blue script pages to — the final goal — four shiny CDs.

This massive board holds examples from nearly every stage of the creation of Wing Commander III: from sketches to screenshots, from white and blue script pages to— the final goal— four shiny CDs.

HISTORY

IN THE BEGINNING

You could say it all started with little colored blocks moving around on a screen. Not a particularly dazzling onset for what would become perhaps the most popular science-fiction flight adventure ever to hit the computer game market, but not bad for a thirteen-year-old boy playing around with his friend's Sinclair ZX-80. Chris Roberts, living in Manchester, England, spent all his spare time discovering what the world of computers had to offer. The ZX-80 was one of the most popular computers in Britain then. It had about 1K of RAM, but that was enough to make blocky shapes that moved.

It didn't take Roberts long to realize he needed formal training to improve his skills. He took an extramural course that concentrated on how to create business programs and operating systems, but he was more interested in games. A world of entertainment opportunities beckoned to him through computers—that was the market that attracted Roberts.

He began to dabble in the world of games. In his spare time, he developed a few simple games in BASIC. They were simple enough to be typed directly into a computer and played —and good enough to be published in the *BBC Micro User*, a computer game magazine. Roberts was more than happy to sell his games to the magazine. Not only did it pay $200 for each game, which is more than most teenagers expect to receive for playing at their favorite hobby, but there was also the thrill of developing games "professionally."

His early games were elementary. His first was an arcade-style version of King Kong, complete with a giant gorilla and helicopters. His second was *Popeye*, another simple arcade-style game. But it wasn't long before Roberts found that BASIC was too restrictive for writing games. The graphics quality would always be limited, and the speed was never fast enough to suit him. The next step was to learn machine code.

During 1983 and 1984 he worked on the machine code for a simple action/adventure game called *Wizadore*. Unlike his previous games, in *Wizadore* the player could manipulate objects, cast spells, hurdle obstacles and fight valiantly against evil creatures. Imagine Software published *Wizadore* in 1985, and it went to number one in the *BBC MicroUser* charts.

The next game in Roberts' programming evolution was another arcade adventure called *Stryker's Run* - - a game that incorporated scrolling. The player could pick up objects, jump aboard helicopters and planes, blow up obstacles and more — all while moving across an area much larger than one screen. The graphics had been done by a an artist hired for the job, and were the best on the market. Similarly, he brought on Martin Galway, a friend from school, to create the musical background.

Stryker's Run far outsold any game that Roberts had previously designed. It was clearly time to break into a larger market. He decided to work with the Commodore, which was establishing a huge base in the entertainment market.

The first Commodore game Roberts began working on was *Ultra Realm*. It was different in that it used a split-screen display with a top-down perspective, and also included fully fleshed characterization, not to mention plenty of well-armed opposition and a compelling storyline.

ORIGIN

When *Ultra Realm* hit the shelves, it was under the name *Times of Lore* — and it was released by a young company named ORIGIN, situated in Austin, Texas. Other companies could have marketed the game, but Roberts and ORIGIN realized they worked well together.

Roberts, while visiting his parents in Austin, found a local artist, Denis Loubet, to work on his new game. Approximately two weeks later, Denis was hired to work for ORIGIN. That was the introduction. Roberts had never heard of ORIGIN — the new company had not established a reputation in Europe yet. However, when Denis showed Richard Garriott (ORIGIN's creative founder) and Dallas Snell (VP of Product Development) the game Roberts was working on, they became very interested in meeting him.

At the time there were only a handful of people working at ORIGIN. They were a high-energy group with an infectious attitude about the entertainment industry. Although Roberts had talked with several high-profile companies such as Electronic Arts and Bröderbund, he decided to let ORIGIN take on the distribution of *Times of Lore*. It was a welcome change after the high-pressure, big-business atmosphere in England.

PROCESS OF LEARNING

Not everything that Roberts touched turned to gold, however. After *Times of Lore* released he had several games on the drawing board. One was *Times of Lore II*, another was *Bad Blood*, and a game called *Squadron* was being sketched out. There was, however, the small problem of money.

Actually, the problem was lack of money. Designing three projects concurrently was not financially possible. ORIGIN chose to give *Bad Blood* precedence — not only would it be easier to complete, the theory went, but it would also make a certain time-slot that the company currently had empty. Unfortunately, *Bad Blood* took more resources than anyone had anticipated. It was late hitting the shelves and sold slowly. No one knew what to expect of it — the arcade-game players thought it was a kind of *Ultima*-style role-playing game, and the *Ultima* fans avoided it because it was an arcade game.

SQUADRON

As he was completing *Bad Blood*, Roberts was also starting work on *Squadron*. He decided on a three-dimensional, first-person perspective. Nothing else would carry the intensity that he desired. He wanted to go for the feel of a movie. To that end, he began experimenting with bit-mapped graphics.

It was the right decision. Bit-maps were images taken from a model and stored as a huge "shape file." That way the program only had to know what view to turn on, rather than to develop it new for every frame. It took a while to develop a method that took full advantage of bit-mapped images. Scaling was the largest hurdle. It was difficult to simultaneously rotate an image and scale it correctly.

Finally, *Squadron* had developed to the point where a player could sit in a cockpit, fly around and shoot at the enemy — and Roberts decided it was time to show it to Fred Schmidt, ORIGIN's general manager, and Dallas Snell.

They all agreed the game looked good. Not only did the graphics carry a visual punch that was unusual in the industry, but it could introduce ORIGIN to a whole new section of the computer game market. *Squadron* was accepted as an ORIGIN product. Following a trademark search, the name was switched to *Wing Commander*.

WING COMMANDER

One of the things that impressed ORIGIN were the touches that appeared onscreen. From the hand on the cockpit joystick moving in time to the player's hand on the controls to the way the pilot's head "moved," *Wing Commander* drew the player not into a simulation of flying, but actually into the story itself.

A significant part of what made *Wing Commander* seem more real was not graphics, but the story. The character interaction and dynamic musical score were some of the many things that Roberts had always known he'd like to include in his games, but which the computers of previous years had never been able to handle. *Wing Commander* was the first game Roberts developed for an IBM-compatible PC audience capable of viewing 256-color VGA graphics. Moreover, ORIGIN decided that they could require 640K to run the game. Roberts took full advantage of the opportunities those specifications gave him. As it turned out, the final product of *Wing Commander* matched the vision that Roberts had conceived. In the computer industry, that is an outcome that's rarely realized.

THE HIT

The first sign that the game was going to be a hit came when they showed it at CES in Chicago, 1990. Developers and designers from other companies couldn't stay away from the fast, new 386 and large-screen monitor. The booth was packed until the show was over —and was the favorite subject for the duration. No one had expected such a great simulation-type game from ORIGIN. Everyone had thought ORIGIN was too small to manage it.

The next sign of success was when the playtesters started to work on the game. Professional game players, these testers were rarely impressed — *Wing Commander*, however, captured their attention. People were staying late, playing the game in their spare time. When the game shipped, sales took off far faster than expected. It was easy to see that fears about the market's perception of ORIGIN as an *Ultima*-only company were misplaced. *Wing Commander* made the charts—and stayed there far longer than anyone had predicted.

THE SAGA CONTINUES

Toward the end of the *Wing Commander* project, they began to prepare for a "special edition" of the game. Extra *Secret Missions* were designed and developed, mostly alongside the main project. Roberts likened it to other modular games, such as *Dungeons & Dragons* —a way to expand the adventure without having to purchase an entire new game. It was a good idea, and quickly grew into a second expansion. *Secret Missions 2* was created, and took the player down yet one more path in the war against the Kilrathi. The next stage was obvious: *Wing Commander II*.

The second installment of the *Wing Commander* series was produced by Chris Roberts, but was mostly directed and handled by Ellen Guon. He retained a certain amount of creative control in as much as he could say which direction the story should take, and which directions had the wrong "feel" to them. He discussed with Ellen Guon which storylines remained true to the overall *Wing Commander* universe, and which concepts were shaky. Always his basic measuring stick was "would I like to play this game — is it something that I would really enjoy?"

For *Wing Commander III*, though, he reclaimed his role of creator—only this time he guided not just the project, but the Hollywood production.
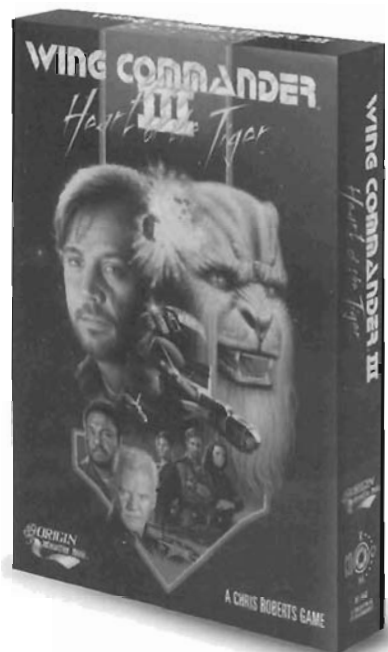
DESIGN

As much input and creativity as Chris Roberts invested in *Wing Commander III*, he could not have done it on his own. His designers and programmers worked long hours to produce the best gameflow and space flight conceivable. They are the unsung heroes. When a production is as ambitious and ground-breaking as *Wing III*, the nuts and bolts of the game itself can sometimes get lost behind all the Hollywood glamour. It can easily be forgotten that an Interactive Movie is not a movie, but a computer game.

The team Chris assembled was unusual. All highly skilled and enthusiastic, the most distinctive common denominator was that they were all *Wing Commander* fans long before they worked at ORIGIN. They were not introduced to the game in retrospect. No one had to write out a list of "this is what impressed the customers." They had been in the cockpits from the beginning of the epic adventure, and they were ready to make the game all they had ever hoped it could be.

ORIGINAL CONCEPT

CHRIS ROBERTS, DESIGNER/DIRECTOR/PRODUCER

The world of *Wing Commander* is a series of offices and cubicles behind an unadorned gray door set in a purple wall. The nameplate on the third door to the left reads simply "Chris Roberts," but an anonymous team-member has taped up a sign: PUSH BUTTON FOR INTERACTIVE.

Inside his office is a sprawling desk, some cushioned seats for visitors—and in the corner is a souvenir from the Los Angeles shoot, a canvas chair with his name and "Director" printed across the back. On the windowsill behind the desk are two angular, pale rocks. Chris picks one up and displays it. "This is the asteroid from *Wing Commander I*. We hung it by a string from the ceiling and bit-mapped it. We actually had a moon rock that we looked at, but this worked much better … and we just picked it up off the ground."

Q: What did you actually envision with *Wing Commander III*?

CR: The goal was to finish up the *Wing Commander* trilogy of fighting the Kilrathi. Plus, since we were going to CD-ROM format, we wanted to do a CD-ROM game right. The *Wing Commander* games have always been done that way—*Wing Commander I* was designed to use a 386 VJ properly. For the CD we decided to do an interactive movie with live action. Everyone's been talking about interactive movies, but we hadn't heard of anyone doing it right, so we wanted to go out and do it properly. With *Wing III* we tried to apply the production value to an interactive movie that we'd applied on the computer side with the previous *Wing Commanders*. The goal was, if someone said, "What's an interactive movie?" we'd just hand them the CDs from *Wing Commander III* and say, "Here, check this out."

Q: Are you happy with what you've got so far?

CR: Absolutely. As doesn't happen too often, but did happen with *Wing I*, I think the results we got were better than we felt we were going to get. That's always a good sign—when it exceeds our expectations.

Q: What was your perception of how *Wing I* hit the market? Do you think there's going to be a lot of parallels?

CR: I think *Wing I* came just as 386s started truly coming into the home, and as people really started buying VGA cards. Before that it was all 8086s or straight IBM PCs with 286 and VGA. We hit on the crest with sound cards and saw PCs becoming game machines — really powerful game machines. If you wanted to show your hot machine off back in 1990, *Wing I* was the game to do it. I think that right now we are in a phase where CD-ROM is becoming standard and everyone is getting a multi-media machine, but I don't really think the software is out there yet that truly shows it off. That's what I think *Wing III* is going to do.

Q: What are the major differences between *Wing I, II* and *III*?

CR: There are a bunch of them. First off, in space flight *Wing III* has real-time 3-D art instead of bit-map polygonal 3-D. Shape and texture are a lot smoother in space flight. We can also do Super VGA in space, as opposed to VGA, so there's a lot more detail and resolution. It's smoother and more detailed. We have a lot of "incremental features" out in space flight, you get more options in terms of the different controls you have. You can control your attitude levels, etc. Everything that the *Wing Commander* players have been asking for — for a long, long time — is in *Wing Commander III*... and then some.

On the story side, we have live action for the story-telling part of it. Instead of having the face of the character there and the words he's saying appearing below, we filmed actors playing out the scenes. We captured those shots and put them directly in the game, so that the whole storyline gives context and meaning to the space action in *Wing Commander*. In *Wing III*, the storyline is more engrossing — you have more of an emotional connection. There are real people on the screen, instead of just simple cartoon characters. That should move the game experience to the next level.

Script in hand, Chris Roberts and Malcolm McDowell thumb through an upcoming scene.

I think on both ends, space flight and the story side, there are significant differences between *Wing I* and *Wing II*. I would say that there is probably more of a jump between *Wing II* and *Wing III* than there was between *Wing I* and *Wing II*. But I think in its own way *Wing III* is probably as revolutionary as *Wing I* was.

Q: What were the difficulties with such a radical departure from the "simple cartoon characters" in *Wing II* to the way it was in *Wing III*?

CR: The biggest difficulty was the whole video side. No one here at ORIGIN had ever done anything like that. The computer game industry had never done anything to that scale. We didn't even have any technology for playing back the video on CD. So we had to do a lot of the story/movie side on blind faith and guesswork. We decided that we were going to try and get fresh-out-of-Hollywood screen writers to get the script ready. We knew we needed to try to do it out in L.A., and get it done right-- with well-known, good, established actors. We hadn't done it before, so it was a real learning experience.

The space flight/game side was a lot easier because basically we'd been working with that for a long time. We'd been learning from our mistakes and improving on them, so we had that down pretty well. Basically we jumped into the movie industry and had to learn fast or sink. I would say that was probably the biggest challenge.

The other challenge was to get across the idea of how it was going to fit together. Everyone was kind of skeptical. "Oh, yeah, live action. That kind of thing sucks." We had to face attitudes like that. Still, I would say the video was probably the biggest challenge.

Q: Was *Wing III* something that grew in concept after you started working on it?

CR: No, I knew the story we were going to do on *Wing III* before we started. I designed the *Strike Commander* technology with *Wing Commander III* in mind, to do all the space flight. That's one reason the space flight stuff was easier for us. We just upgraded the Super VGA to make it faster. *Strike Commander* was developed so we could get the technology for *Wing III*. Since it went on a lot longer than I had anticipated, I had a lot of time to sit around and think about what I wanted to do on *Wing III* ... and how cool it was going to be. So I had thought out the storyline, the basic concept and everything in *Wing III*, long before we started.

Except for the video ... i only decided to go with video in it once we started creating *Wing III*, and so that stuff was new. I had a pretty good idea of how everything was going to be with the exception of using video instead of drawing characters.

Q: So you didn't have any surprises.

CR: Not really. It was just trying to beat the "vision" out into a game. That always takes some time. Luckily there weren't any surprises. The only surprise was that it turned out better than I thought. Things like the scriptwriters coming back with a better script than i expected. There were surprises on the up side, which is always nice to have.

Q: Comparing the actual sit-down-and-think-out design stage of *Wing I* and *Wing II*, to the design stage of *Wing III*, what changes were there in the way you designed the game?

CR: *Wing III* was designed much more up-front. I knew how *Wing III* was going to work before I started on it. I had also honed a lot of my ideas. My ideas on what makes this kind of game work had evolved, and so it was becoming more than just guesses. *Wing I* was just a whole bunch of ideas that we put down, saw how it worked together ... it kind of grew as we went along. By the time we started *Wing III* — after *Wing I*, *II*, and *Strike Commander* — we had a good idea of what things were going to work. It was just a matter of designing it right.

Also, we were forced to plan everything out front before we did the movie shoot. Once you're shooting, you're committed and you can't change anything. So we needed to have everything in the game designed by about February. The script had to be finished. So from that date on, everything was just a matter of being finished and slotted into place. That's good, because it stops you from tinkering. With most computer games I've worked with in the past, it has always been that you're designing until the day before it ships. It's probably one of the biggest reasons why games slip: people play around and try to do different things. This time we were forced to commit to something we designed.

Q: You seem to be keeping on schedule.

CR: Yes! Amazing!

Q: What was the most interesting or fun part about creating *Wing III*?

CR: There were a lot of interesting and fun parts. It's great to come up with an idea and hand it out to a lot of really creative, bright and talented people and watch them come back with stuff that's cooler than you imagined. The sum is greater than the parts. That's one of the very cool aspects.

Personally, I think one of the best aspects was going out and directing the whole shoot ... and kind of putting it together. My biggest kick about computer games is that you take a picture in your head, and you get it onto a screen. Directing live action was a lot like that, but condensed. You'd start off with an idea of how a scene would go. In the morning you'd talk it over with the actors, you'd block the angles of the camera and shoot it, and the next day you'd be seeing a rough cut of the scene. Traditionally, with computer graphics, it would take a month before I'd see a rough cut. So for me it was a distillation of everything I liked in making computer games. Directing was a big rush. Movies and computer games are my two favorite things. If I weren't doing one I'd be doing the other.

Q: What differences did video bring to the game?

CR: I think it makes the game far more interesting. It makes you care about the story. I always liken it to the days when I played Infocom games...I used to love textual adventures. Then Sierra came out with graphic adventures and all the people liked graphic adventures. Now everyone playing adventure games has a new experience - - they can see and interact with the world. Before, they had to imagine what was going on. Video just opened the audience up wider. The people who liked the adventure games in the old days still play the new ones, but now a whole bunch of new people who didn't used to play the old ones have come along because the experience is a little closer to what we are used to seeing on TV and movies. We have achieved the third stage: first text, then graphics and now CD-ROM. It makes the story much more compelling because it has real people, with real emotion. An actor can say something with a look that you can never really get across with text on a computer screen, with just a computer face there.

I think that really makes a difference. The story end of it really means something now. You'll be interested. You'll want to watch. You'll want to know what happens in the story. People will get into the story, and maybe they'll like or hate a certain wingman —they'll give a damn what happened to him out in space. That will make a big difference when you are fighting out in space. Your actions will have a real effect on the people back on the ship—and now these are real people that you talk to and associate with. That heightens the whole impact of the story.

Q: What difficulties did video production throw at you?

CR: It was just so new for us. Organization, new technology, everything...we hadn't done any of it before, so we had to learn fast. We had to talk to dozens of different people and find out what was the best way to do things — in their opinion - and judge those against what we heard from other people. Then there was just getting organized. Basically we shot over a hundred hours of footage and the end result was more than three hours of footage on the computer.

Backed by a full stage crew, Chris Roberts observes one of hundreds of takes that resulted in more than three hours of game footage.

All the scenes had to have computer sets and backdrops. That was such a vast amount of art that just having to organize the backgrounds with the footage was a real nightmare. Most movies have maybe five to ten percent special effects shots — where 100% of our shots were, in essence, special effects shots. Anyone on our staff who was working on the video side could get a job anywhere, organizing anything. We had to do an incredible amount of work on that end. Plus there was a lot of new equipment. The movie player wasn't fully running until a full month after we finished shooting. There was a lot of stuff like that. Everything worked out, but it was tough.

Q: Why did you assemble the particular team that you did?

CR: With Frank (Savage, the Game Development Director), it was pretty easy. Warren (Spector, Senior Producer) told me about him. "Yeah, we've got this guy up in Chicago whose license plate reads WNGCMD 1. We need to hire him to work on the next *Wing Commander*." So we brought him in on *Strike Commander*. He was just awesome on that. Frank was probably one of the biggest fans of *Wing Commander*, so for him to do *Wing Commander III* seemed really natural. He's definitely incredibly talented. Frank pretty much built the team up. All the programmers were Frank-picked and hired to work with him. He looked for programmers who were game players, who liked *Wing Commander* and who shared the same kind of vision.

We got Chris Douglas to be the Art Director, and it was the same kind of deal. He came in to do a bunch of the *Wing Commander II* art. He knew *Wing Commander* intimately and he has a really good artistic and stylistic look…kind of jagged. We found him working on *BioForge* and dragged him to *Wing Commander*, and he helped out immensely.

Then there's Martin Galway. I've known Martin for a long time. He did the sound background for *Times of Lore* and *Stryker's Run*…so he's a really good and organized at getting the job done. The rest of the people on the team I can't take credit for, because I really only pick the key people, and let them pick who they want to work with.

Q: *Wing I* had a lot of little touches that made it a different experience from all the other games out there. Are there any little touches in *Wing III* that make it competitive?

CR: There are a lot of similar touches in *Wing III*. I don't know if people just expect them now, because *Wing I* did them and now everyone does them, too. As far as I'm concerned, each little thing you do that pulls you into the screen and makes you feel like you are there … anything that helps you suspend disbelief when you want to do it, that's what we tried to include. In *Wing Commander III* we position our "cameras" in the cockpits. Your MFDs break. You have little sparks when you cut something. Everything is richer than it was in *Wing Commander I*. We still have the scramble take-off sequence, but it's got far more to it than *Wing Commander I* had.

It's tough for me to put my finger on any one "touch." I think the most I'll say is that we applied a movie production value to every single scene, no matter how small or unimportant it was, so everything had the same production value from start to finish. Usually on a computer game the intro looks really good and the end sometimes looks good, but what's in between doesn't get near the attention that the intro got. We gave the same priority to everything. We filmed everything back-to-back so each little scene has the same production value that the opening and the end do. Which is really cool, actually. People will play the game just to lose so they can see what the losing endgame looks like. That has some animation that's just as good as the winning track, which is very unusual for a game. So I would say that is probably the biggest thing that people will notice. Just the attention to detail everywhere.

Q: This is the third game of the trilogy. How long have you known how it would all wrap up?

CR: I think since the second one. During the first one I really wasn't thinking about doing a trilogy. But after the success of the *Wing I* everyone clamored for a sequel. So we did *II*, but I was thinking that I wanted to finish it, and finish it right. While I was thinking it over I formulated what I wanted to do with it. During the course of *Strike Commander* I cleared up all the ideas. So I would say back in *Wing II* and *Strike Commander* was when I knew.

Q: What other elements in the game, besides the video, do you feel carry a lot of the impact of the game?

CR: Well, there's no question that the space flight also looks great. Everyone went to great pains to make sure the space flight was like the video. I haven't seen any other game, even in Super VGA, with this level of detail. Especially out in space. Our ships - you can fly inside and outside huge capital ships. We don't even need to put video in this game. It could just have been space flight and it would be seen as being the best *Wing Commander* yet. I think people will be getting a huge bargain. This is typical ORIGIN style, where we say, "Nevermind what we need to do. Let's just do the biggest, baddest thing we possibly can." And that's what I think *Wing Commander III* achieved. We figured, as much money as they'll give us, we'll do as much as we can. And we'll have fun with it.

Q: Is there anything that you wish had been done differently, as far as quality or feel or anything?

CR: No ... there are things that I will do differently on my next project. On this project, I still agree with why we made each decision. Space flight-wise, I wouldn't do change anything.

Maybe there is one thing. With the video, we ended up spending so much money and attention on shooting the scenes that if we had spent a little more money we could have also gotten a movie or a TV show out of it. That's probably one of the things I might have done differently. It's all a matter of money. Doing a movie version we would have seen our investment returned.

And another thing is, I think that even though using computer sets for everything is very cool, it's also a real pain. I would like to do it in a traditional movie style ... 10% of the movie in special effects, using high end SGI stuff—really, really cool stuff—and the other stuff would be filmed on traditional sets. Because we wouldn't have to match computer backgrounds, we could have a little more fun with lighting and moving the camera, etc. We were using computer sets for mainly for "impression" reasons. I don't think that will be an issue in the next year or so. So that's pretty much what I would be doing differently.

Q: Was there any one point in the creation of the game when you thought, if this happens, then the game is going to be really great ... but if this doesn't happen, then the game isn't going to be as good as it could be?

CR: To be honest with you, I always try not to worry. You sit around and worry and it gets to be gales of problems. I could spend way too much of my time stressing. Making a computer game has a lot to do with blind faith ... just believing that it's all going to work out. You have to have faith that you're going to be able to fix the bug, and you'll be able to make it work. It's as though when you worry about things happening or not happening, you'll never get it done. You'll sit and worry about it all the time, instead. So I really tried not to worry. My biggest concern was the movie player-machines, and whether we would be able to play back all the stuff that was shot. We had an idea it could, but we didn't know. and we just went ahead and shot it without having a movie player. They worked on it and did a fantastic job. We shot with blind faith that yes, it will work ... we can make it work.

Q: Next, the classic "last question." What are you planning to do next?

CR: Go to Disneyland! I don't know. I have one project that I want to start developing, but I'm not quite sure what the storyline is going to be yet. But, yeah, it will probably be a movie/game project. I'm going to try to put it together.

Chris and John Rhys-Davies, a.k.a. Paladin, work through a scene.

PROGRAMMING

FRANK SAVAGE,
GAME DEVELOPMENT DIRECTOR

Frank's room is kept in darkness, twenty-four hours a day. The only light comes from a pink elephant lamp that is perched on top of a speaker. There is a tie draped over the elephant's head, and the walls of his office are hung with star-charts and posters of space ships. It's a small office, and he nearly has to crawl over his desk to get to his chair—but once he's there, he's the boss.

Q: What did you do first as Development Director?

FS: Basically what we did for *Wing III* was to actually sit down and try and identify what we wanted to do. I wrote down every single thing that I thought the game was going to need—all the way down to the single-week task level. For example, we attempted to identify everything that constituted a cockpit. We made a list: cockpit, missile lock, missile targeting, missile launch information, displays for what weapons remain, for communications, for shields, for damage, and so on.

From that we determined how long it would take to do a cockpit. With that information, we tried to assign a milestone date—all of the cockpit functionality that we know of must be done by this particular date. If they were not all done by that date, we knew we needed to either redo the cockpits or make some serious cuts into what we planned to do.

Once we had a complete list of milestones, I tried to schedule the whole project. I began to think of who should take each milestone. Given that the cockpits, from the time someone started them to the time they were finished, were going to take X months, and that other things were going to take Y months, you then basically had to subdivide all that into the people available. If everyone had, say, 12 months of work scheduled, and I suddenly added the cockpits to someone's schedule—that means that person can't do all the things on his task list. Tasks would either would get done late ... or there just wouldn't be enough time on his schedule for him to finish it at all. When I scheduled the project, I could tell how many people I was going to need. I was able to show that we needed three more people.

So I then hired Chris Todd, Frank Roan and Tony Morone. I interviewed Frank Roan over the phone, back in late July, 1993. He was a huge *Wing Commander* fan, wanted to work on *Wing III*, had the programming experience necessary and was working in another computer game company's Tools group. We picked him up to do the space flight engine. He put me onto Tony Morone, who was a friend of his from college.

Tony, at that time, was doing spreadsheet and database programming up in Boston, wearing a monkey suit every day—the whole nine yards. He didn't know C++, though. I told him that if he could prove that he was willing to learn what it takes, even while he was working at another job, it would score big, here at ORIGIN. He worked up a very object-oriented demo in C++ that clearly indicated that he had been able to learn the language in a short time. So we hired him to do the cockpit systems. The rest is history.

Q: How did your schedule work out?

FS: Everyone met their timelines and milestones. We would meet every week and plan what we were going to accomplish the next week based on what we had accomplished the previous week. As time went on, we were able to make sure that things met their schedules without any problems. We stayed on or ahead of schedule pretty much through March, when it started to slide a little. We worked a lot of crunch through March and April trying to bring it back onto line, and did. We've been working steadily since then. There haven't been too many slips at all.

Q: What were some of the difficulties your programmers faced?

FS: One of the main differences between doing game programming and "regular" programming is that most of the other programming assumes that a lot of detail work is taken care of for you—for example, if you wrote a program for a fax system. The program might talk to a fax board, make sure that every incoming fax gets filed correctly, and always be running in the background—there is a certain set of assumptions you can make automatically. That's especially true if it's for a certain company and isn't going to be distributed all over the place. You can assume what kind of computer they are going to have, what kind of memory, what kind of fax board ... all of those things are what we *can't* assume. We don't have any idea what kind of memory the end user is going to have. We don't even know what system they're going to have. We can't know what kind of processor or input devices they have, whether it's going to be a Microsoft mouse or Logitech mouse, what kind of joystick they're going to use—top-of-the-line or garbage that breaks if you pull it wrong. We just don't know what kind of machine we're going to be dealing with.

We have to do a lot more low-level programming than any other industry, with the exception of operating systems. *Windows* or OS/2 or DOS can't assume what kind of machine they are going to be running on. We do what Microsoft or IBM does when they make an operating system, and on top of that we also have to write the actual game. It's way more complicated than any other kind of programming anyplace else. Once you get all the low-level stuff in you have to put all the rules in, and the graphical engines—whether 3-D or 2-D. Then when all that is in, it's a matter of finding out why all the pieces don't fit together. Then you have to get them to fit.

Q: What exactly is an "engine"?

FS: An engine is essentially the code necessary to draw the spaceships. An engine for a real 3-D world is a very different prospect than a top-down view. In a top-down view you usually only have to tell everything what can draw over what... but in a 3-D world anything can draw over everything else. There are a lot more in-depth calculations, plus one more dimension to take into account.

Q: What sort of surprises did you encounter, building a brand-new engine?

FS: We didn't. That was surprising because so many of the people involved were new to the industry. We didn't make the usual kinds of mistakes. The overwhelming reason was because we were in flat 32-bit protected mode.

That essentially means that every single piece of memory in the computer, in our universe, can only be talked to in one way — everything has its own address. In 16-bit and in real-mode, it's possible to talk to the exact same location in memory a bunch of different ways. For example, if you have a bad pointer (which is a memory variable) that says what I'm interested in changing exists in a certain place in memory, in our universe it can only screw up in that one place. In a 16-bit universe it can screw up any place. Our universe is a lot more stable. When something does trash a section of memory, it almost always trashes the exact same section of memory. It makes things a lot easier to track down. The precise same crash is very, very repeatable.

When something goes wrong in a game, you can repeat what you did and get the exact same crash. That's *extremely* different from any other game I've worked on in my life. We couldn't do this before now since the 32-bit protected mode can only be done for 386 or better computers. It was only about two years ago that we could start requiring 386s for games.

The other reason is that, until recently, companies weren't willing to put out the money necessary to buy a DOS extender, which essentially allows you to talk to all the memory in the computer without resorting to things like EMS or XMS or things like that. Companies wouldn't buy them because DOS extenders used to cost a truly phenomenal amount of money. You would have to pay about $1000 per

```
//===============================//
//                               //
//   WING COMMANDER 3:           //
//   THE HEART OF THE TIGER      //
//                               //
//   "It's not a game — it's war."  //
//                               //
//   WC3.CPP: The main program file;  //
//   all gameflow action will    //
//   originate from here. — RCT  //
//                               //
//===============================//

#ifndef WC3_H
#include <wc3.h>
#endif

#ifndef SYSTEM_H
#include <system.h>
#endif

#ifndef SCRIPT_H
#include <script.h>
#endif

#ifndef GAMEDATA_H
#include <gamedata.h>
#endif

#ifndef MISSIONS_H
#include <missions.h>
#endif

#ifndef FERROR_H
#include <ferror.h>
#endif

#ifndef PHARLAP_H
#include <pharlap.h>
#endif

#ifndef FNEARMEM_H
#include <fnearmem.h>
#endif

#ifndef DLL_H
#include <dll.h>
#endif

#ifndef VMMAN_H
#include <vmman.h>
#endif

#ifndef BFMAN_H
#include <bfman.h>
#endif

#ifndef DPMI_H
#include <dpmi.h>
#endif

#ifndef PARALIST_H
#include <paralist.h>
#endif
```

programmer for the development kit. Then there were the royalties to the guys who wrote the DOS extenders. We're talking sometimes about $1.50 per game sold, which is incredibly expensive — it's the same as adding the cost of three more CDs to the game. Instead, Jason Yenawine wrote our own DPMI server. We use that, so the game doesn't even need an outside DOS extender — it uses the DPMI DOS extender that is built into *Windows*, OS/2 and QEMM. So a DOS extender isn't even necessary. In those places where there are no *Windows*, QEMM or OS/2, we wrote our own little DPMI server to take care of that. That's even better. Because we hand-tailored it to the game, we get more memory — there isn't anything generic about the program.

Q: Besides building the engine, what input did the programmers have in the game?

FS: Basically, anything that is in the game from previous *Wing Commanders* is Chris Roberts', but anything that was added, we embellished — all the actual programming, everything that makes the system work. For example, the way the 3-D nav map came out is due to Tony Morone. The way the ships move and the AI is all Frank Roan. The gameflow system, the features in it, all the implementation of the design was done by the programmers. There was very little "this is what is going in and this is exactly how it is going to be laid out." I essentially told the programmers "this is what I need, go out and do it — and if it comes back cooler than what I described to you, so much the better." That's generally what they did, and they did it all on time, too, which is remarkable.
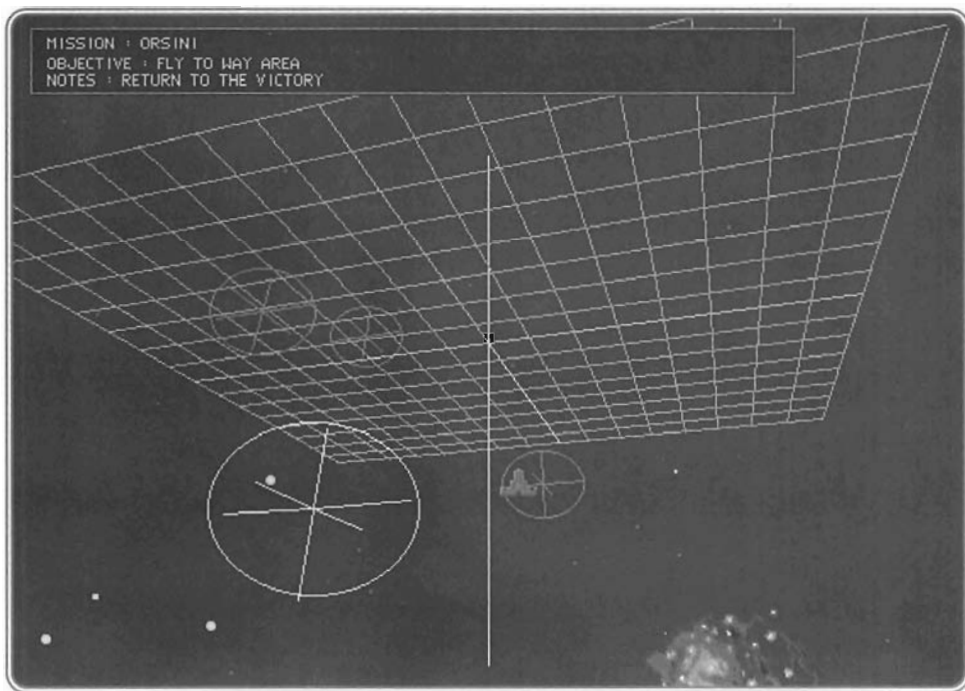
When the programmers were told to create worlds, they answered with a 3-dimensional navigation map, complete with panning and zoom capabilities.

TIM RAY,
TECHNICAL DESIGN ASSISTANT

Tim works in a cubicle just outside of Chris and Frank's offices. Hanging on the wall over his computer is a nicked cutlass, dredged from a wreck in the ocean. He points out the hole in the scabbard where it was hung on a nail on the side of the ship so you could "grab it on the way out if you needed it." "It's nothing really special," he remarks, "but I like to ponder on these nicks in the blade." Under the weapon his monitor glows with multi-colored code.
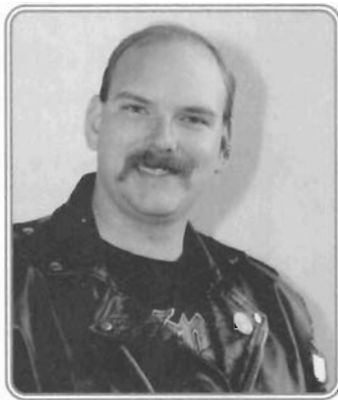
Q: What does a TDA do?

TR: I, along with Ben Potter and Jeff Shelton, am responsible for maintaining all of the data, all of the missions and a lot of other things that occur in the game. The missions are our primary responsibility. Whenever you fly somewhere and have someone attack you in *Wing III*, that's something that we did. There are more than fifty-one missions in the mainstream game, plus another as-yet-to-be-determined number in the simulator, and all those will be our work eventually.

Q: So what do you do when you maintain the data? You don't do the art.

TR: Actually, we do a surprising amount of the art. But what we mainly do is make sure everything is where it needs to be in the "virtual world" of the game. When you maintain mission data you make sure everything is appearing in the correct place, is the correct thing when it shows up and has the correct attitude when it gets there. Jeff is doing all the debris for the fighters, so every time you blow pieces off of somebody it is probably the art that Jeff did. Again, that's a big load off the artists, whenever we take on tasks from them.

My special purview is all of the objects in the game... besides debris. Anything you see in the flight portion of the game, any capital ship, any fighter, any building on the ground, tank, any turret that suddenly turns to fire at you (and kill you), any ship that you can fly inside, all that is stuff that I maintain and make sure that it's correct in the context of the rest of the world — that it's the right size and color. That's a big part of what I'm doing. Which is good, because I was in on the design of the game from the word go, from the very beginning.

We also do a lot of things to AI—curse it, tweak it, beat it with big sticks. Ben Potter is doing most of that right now. He's doing the profile files, which are all of the communications that occur during the flight and all of the ratings that the individual pilots have when they fly. He's handling all that, which is a big load off of everybody's mind. Mostly it's just translating Chris Roberts' conception, Frank Savage's conception and Chris Douglas' conception into my version of that, then translating all of that into numbers that work in the files of the game. It takes a certain amount of mind-reading, a certain amount of tact and just a lot of work.

Q: You enjoyed working that hard?

TR: Yeah! I get to work with lots of different software packages. EOR, our in-house engine, *Animator Pro*, *Deluxe Paint Animator*, and the mission system, which is an in-house programming system very similar to Assembly. I also compile the game for Ben and Jeff because I've got a version of Metaware's High-C Compiler on my machine. So I go over the game at least once a day, with each new version. And that requires a certain knowledge of C. So I do a lot of things.

My favorite thing is that — well, I tend to see everything in light of the last project I worked on, since it was the first one I worked on here — during *Strike Commander* we tried very hard to "fit" the game to reality. That turned out to be a huge nuisance ... which is something I never expected. In this game that particular constraint is not really there. All you have to fit is the design conception of the game, not reality. You only have to be consistent within that logic structure. It's a lot more free-flowing. If you need something new you just design it and build it and put it in. You're not constrained by real life. That's very nice.

The other thing I like is that this project is much, much better organized and is largely on schedule. Which is a great surprise and makes me extraordinarily proud, because it's the first time a game has been this solid at ORIGIN and been on schedule still. We're working very hard to try and keep it that way. That's one of my favorite things.

We're riding high on this — morale fluctuates, yes, but we're riding very high on this. And that's very, very good.
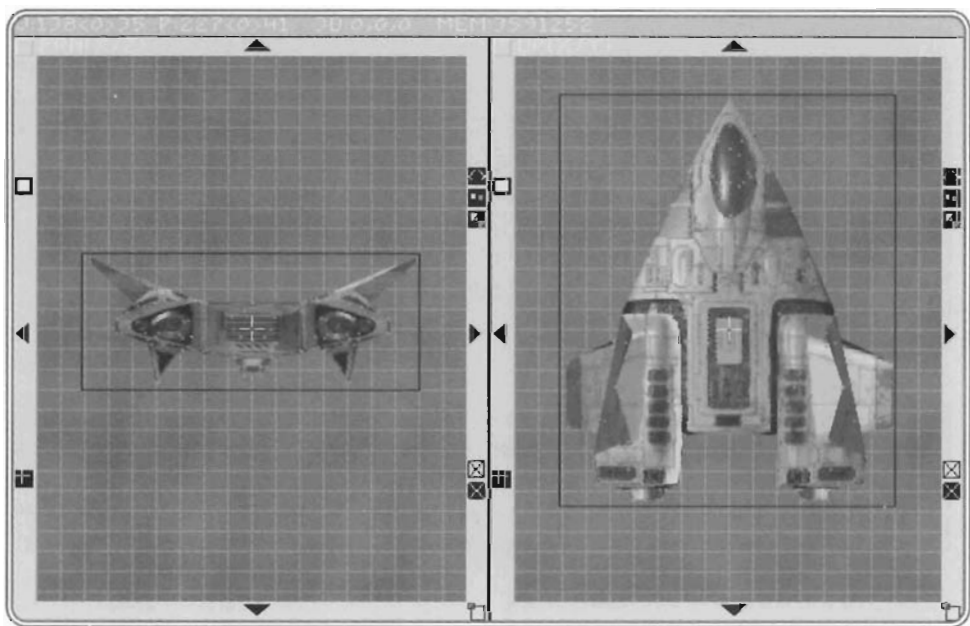
EOR, one of ORIGIN's many in-house utilities, allows artists and designers to build wire-frames and apply Alias textures to polygonal objects.

TONY MORONE,
PROGRAMMER

Anthony Morone and Frank Roan share an office with a view of the empty lot between the ORIGIN building and U.S. Highway 183. The walls are covered with a wide assortment of posters. Snacks line the window sill, there are a couple of unrecognizable tinker-toy and Lego structures on their desks, and on a bookshelf there is a box of soft foam balls for throwing at people. Nevertheless, the overall atmosphere is one of earnest programming.
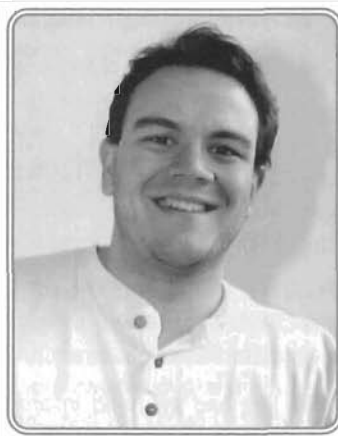
Q: Frank Savage said you came up with the 3-D nav map. How much did you know already when you started working on it?

TM: Basically the only guideline was to make it a 3-D nav map — we didn't really have anything planned at that point. That was how the whole project has been. Each of us has influence that we can use on how things get done. Frank said, "We need a system to do this. Go ahead and do it however you think it should be done." So it was a lot of fun.

We always start with *Wing II* as the model, basically because we want things to be backwards compatible. That's why when you go into the nav map and get a top-down view, it looks similar to the *Wing II* nav map. Only then you get an added surprise when you move the joystick and everything starts turning around you.

So, basically we started with "what did the *Wing II* nav map do?" Functionally, it's pretty much the same. It gives you the same information as far as what you have to accomplish in the mission. Only now we treat it as kind of a tactical display, because when you go into a mission area you can just pull away from the game — onto a nav map — and zero in on your area. You can bring up targeting information on all the enemies or all the fighters in that area. You can see the exact formation of all the ships in the area and plan what you are going to do and how you are going to attack the mission. All that is new to the map. It wasn't planned ... it just kind of evolved into that. We never really sat down and said, "Well, the nav map should have this, this and this." We just started with the idea for it to look like *Wing II*, then made it 3-D, and then said, "Hey, wouldn't it be cool if we put in targeting information?" It kind of evolved.

Q: Did you add anything "just for fun"?

TM: The damage effect on the windshield is something I'm proud of. I've gotten compliments on that. When you get a "crack" on the windshield, the crack distorts everything like a lens. People don't expect that. At first it just looks like a piece of art — but then when you fly around you notice that everything's distorting behind it. It didn't really improve the gameplay, but it improved the experience.

Q: What part about being on the team do you dislike the most?

TM: I don't know. I didn't like carrying a deer out of Chris Roberts' back yard. The team went up to his house to enjoy a couple of beers on the lake. When we got there we ended up carrying a dead deer out of Chris' back yard, which reportedly jumped over the fence or something and died. Myself, Frank Savage and Chris had a team bonding experience and carried it out. That's probably the thing I disliked most.

FRANK ROAN, PROGRAMMER

Q: What have you done on *Wing III*?

FR: I've had my hand in probably everything involving space flight in the game, so it's been a lot of stuff! I've done a lot of the feel of actual gameplay —the sense of flying around and everything. Also, I worked out the way the AI (artificial intelligence) interacts with you.

Q: How does that work?

FR: Basically what I tried to accomplish in writing the AI was to get it to feel like you're flying against an intelligent opponent. I didn't want the player to feel the game was computer-controlled. I put in a lot of varied maneuvers to make the enemy seem real. There's a lot of personality reflected in AI. Some people are more trigger-happy, some people are a lot more courageous. The brave ones are willing to go out and kill and not care if they get injured so much. Other people will run after you have landed a few shots on them. Plus, there are a lot of tactics that they use. There are a lot more maneuvers in this than there were in any other *Wing* game: flank attacks, head-on attacks, fade attacks....

Some will flank —go around behind you and try to attack you there. Others will attack head-on, while some will kind of fade out and get out of your firing range to let things recharge, come back and fire on you, and keep going. Things like that. The experience should be that you will never get the same type of battle twice. Things will vary.

I also wanted a lot more taunting. I tried to write it when we started to do the radio communications. I wrote up as much as I could, just so we'd have it. I've always liked taunts. In the same way, most people like to have a lot of variation in what the other pilots say to them. So now we have high morale and low morale in-flight communication. Some wingmen will be more respectful towards you when they have a high morale. Some of them will be more cheerful. When they have low morale, though, you should be able to hear from their voices that they are disgruntled. They'll have more of an attitude. We tried to have a variety so you'll always feel like there are a lot of different characters out there.

In terms of other things, we are all hard core *Wing Commander* game players. So, for example, a lot of features that weren't in the original game, that we always wanted to see, we added. For example, we worked out a lot of the whole damage system—trying to figure out what would be fun and what wouldn't. We've got a huge damage system going. The designers actually came down to us and asked, "Whose idea was it to do the damage system? Or was it our idea from the beginning?" A lot of it was ours, the programmers. We've played it so much, and we've played so many other games, we knew it would be cool to have that kind of damage system. So we worked it out.

Everything you see moving was basically done by me or Tony. Of course, Frank did a lot of the new technology. That's a lot of his stuff, too, in there. But how pilots fly, what they say, how your systems work, what happens when you fire your guns, what happens when you fire missiles, what happens when you go to your capital ship and it's being attacked—that whole experience—I created a lot of that. And I'm proud of that.

It was always one of my goals to work on a *Wing Commander*. I remember when I played *Wing Commander I*, I sent in a resumé. I couldn't even get my foot in the door actually. So I settled for playing *Wing Commander*. Then when someone brought me *Wing II*, I called up ORIGIN and got Sharon Miller when she was still working at Western Temporary Services. I actually called. I was about to graduate from college, and I said, "Look, I'll pay for myself to fly down, I'll pay for myself to relocate. I'll do anything. I'll work for five bucks an hour at UT. I don't care. I just want to work for ORIGIN." They said, "Well ..." and they kept putting me off and putting me off. So I went to work for some other game companies, and then a year and a half later I sent an updated resumé. I got a call from Chris Roberts saying, "Hey, your resumé is perfect. We'd love to have you come work on *Wing Commander III*." I thought, *this* is a big turn-around.

Q: Is there anything that you'd like to put in, or that you're disappointed in?

FR: As I found through the years, and as most software developers will tell you, a product is never finished. It is rare for anyone to have done any piece of code, no matter how small, and say they're done with it. There are always things you can improve. There are always little nuances you can add. So, yes, we can work on *Wing Commander III* for the next five years and feel like we've not actually gotten into it. AI could always be better; you could always take more into account; the cockpits could always do cooler things; the attack ships could always be more in depth; it would be cool if you could actually land on a planet and walk around and talk to people. There's so much detail in a world that, yeah, you could infinitely go on.

A lot of it comes down to time—processor time—if the machine can handle it or not. There's things that we look at and say, "I wish we could get faster machines so we could put more detail into that or have more stuff." For example, you get an attack ship now and there's so many turrets on it. There's so many scenes going on that your framework starts to bog. We have to cut back on things like that. We couldn't go into more detail than we did because of hardware limitations.

ART

The creation of an interactive movie put great demands on the team of artists that were chosen to work on the game. Graphics are what grab the player's attention at first, and keep the enjoyment level high — if they live up to expectation. Chris Roberts' expectations were high. It was not enough to look merely good, it had to be spectacular.

Every background had to be realistic. It was very important that the actors never looked like they were walking around inside a Saturday-morning cartoon. There could be no discernible difference between the computer-generated setting and the few props that would actually be on-stage. In brief, it had to look like a movie.

CHRIS DOUGLAS, ART DIRECTOR

Chris has decked his door with "Dilbert" comic strips that he downloaded from the Internet, and his walls are hung with Maxfield Parrish posters. Compared to the other people on the *Wing III* team, however, the interior of his office is fairly uncluttered. Besides his PC and SGI there is only the black television that he uses to play tapes from his collection of *Mystery Science Theater 3000*, a comfortable chair, two strings of blue and purple origami cranes and thirty-four miniature *Star Trek* spaceships. "When I was a kid, I would have given anything for some of the toys they have out now," he confides. "I'm pretty bitter about how empty my childhood was when today kids can get all sorts of neat stuff...now I just wish they'd come out with some *Babylon 5* ships."

Q: What did you do in *Wing III* as the Art Director?

CD: Well, aside from a fair amount of administrative stuff, I set the look and feel of the game, and did a lot of the conceptual design work. For instance, I came up with the look for the Kilrathi and the look for the Terrans.

Q: What kind of look?

CD: The idea with the Terran stuff was to try to make it all look like a natural evolution of modern technology. The Terran ships look like modern war vessels, aircraft carriers and battleships and cruisers, with big turrets, radar antennas and reconnaissance towers ...the way human stuff looks right now. It's supposed to be an evolution into the future, so the design is all vaguely similar to existing objects. The fighters are reminiscent of modern fighters in their shape and their coloring, the placement of canopies, and stuff like that. They have fuselages and things that look like wings and engines bolted on to them, with everything all nice and symmetrical. They even have bubble canopies like a P-51 or F-16. It all sort of ties back with the way things are today.

The Kilrathi stuff is completely different. In the first place, it's asymmetrical. Their ships tend to be really wide and short, whereas the Terran fighters are like modern fighters that are long, with wings and an axis that runs from tail to nose. The Kilrathi fighters don't even have an axis. It's all sort of modular, instead. There might be a crew compartment, and next to it would be a weapon compartment...and maybe an engine compartment next to that. The pilot looks like he's sitting on the left-hand side of the ship with a bunch of gears on the right hand side, and there might be a big, pointy, really aggressive wing sort of sticking out. Everything will be asymmetrical in some way. Even their capital ships, their big cruisers, are asymmetrical.

The whole idea is to look alien. There are a couple of different reasons why we chose asymmetry. First of all, this is something that we've never been able to accomplish before because of the way we've been doing space flight. The way that we created the artwork in Wing II — there were no polygons. We'd make a spaceship in 3-D and then render thirty-seven views of it. Then the computer would just grab one of those thirty-seven frames and throw it on the screen, scale it up, and rotate it to indicate the direction of the ship. But since we were already doing thirty-seven views, we'd only render just one side of it. Then we'd mirror it over to show you the left side of the ship. Otherwise we'd have to do twice as many views. It would be inefficient, and we'd have to store it all in memory.

So because of that everything was symmetrical, because we were going to have to mirror everything to get the left side. Both sides had to be exactly alike. We don't have to do that anymore because we are actually rendering a polygon in space, so there is no reason for it to be symmetrical. So, of course, we wanted to take advantage of the fact that we could get away with asymmetry. That's a big difference between Wing II and III.

Besides, I've always wanted to do that. There's no reason for spaceships to be symmetrical, unless they're going to be flying around inside the atmosphere.
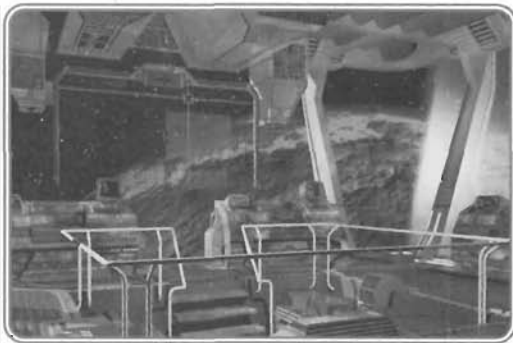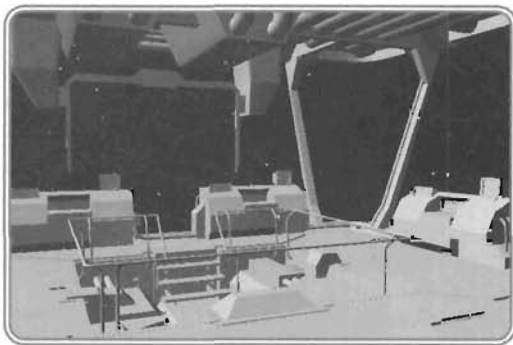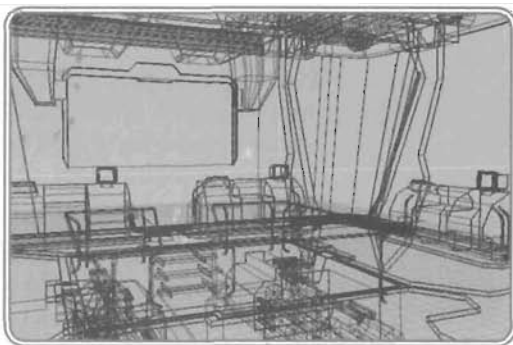
Chris Douglas' forte is to turn concept into reality. Here, a rough sketch evolves into a final rendered set.

Q: I noticed that you used shading differently.

CD: Yeah, we did. In the first place we could use shading to make it look like objects had rounded edges. The way that we did it was to build elaborate Alias meshes for these ships with a lot of detail on them. It was far too complex for the spaceflight to render in real time while you are flying around. So first we built simple polygonal versions of those ships, just approximating the shape of it. It didn't have as much detail — it didn't have bumps all over it or all the geometry that we put in to the Alias mesh.

Then we'd do renders with raytraces of all the different views of the ships: top view, right view, bottom view, left view, front and back view. Six of them. We'd take advantage of all the complex lighting features that Alias has, such as texturing panels or shadows being thrown and highlights on curved surfaces. These things didn't exist in the EOR version of the ship. For instance, if you had a corner of a spaceship where two faces came together, it would just be like a hard edge, full of facets. But with the Alias renders textured on, this gets smoothed out. You get a highlight and the whole thing seems rounded.

So we'd take these renders and texture them onto the polygon. What you end up with is a simple, crude polygon that the computer is drawing real-time, but that had these really high-quality texture maps and renders from Alias. The player's eye glosses over the facets of the crude polygon and sees the texture maps. Think of the texture maps as decals or paint on the basic, crude spaceship. They make sharp polygonal edges look like they curve. The overall illusion is that the computer is doing an elaborate raytrace — the kind that would take an SGI with a 150 MHz processor and 120 megs of RAM twenty minutes to do — but your computer is doing it at 20 frames a second on screen with six different ships flying around. It's just an optical illusion. If you really look at it, you could notice that when the ships move, their shadows don't change. But you usually aren't looking that closely during the game.

Bleary-eyed, Adam Foshko and Chris Douglas dig into the script as they match synthetic backgrounds and live video footage.

Q: What differences between *Wing II* and *Wing III* are you the most excited about?

CD: Well, the cinematics, of course. They're quite a bit better. Having real people helps. I think we did a good job making the backgrounds work for the people.

Of course, the volume of art was incredible. I'm willing to bet that when people see it, they're going to say "Well, it's amazing that it took as long as it did to do the artwork. It's not like they had to do all the stuff for the cinematics. It was all film." But we had to do about ten times the work to create those computer generated backgrounds than we did for the entire production of *Wing II*.

First of all, we had to try and make them look realistic, which in some cases was hard. As we worked on them, we gained experience, so the later sets began to look a whole lot better than some of the earlier ones. That's something that happens with every project, especially if you're working with a new tool. You just get better as time goes on. So we had to go back and redo them to take care of fluctuations in the quality. What was actually the most work for me was getting the camera angles to match up with the shot. There's a fundamental differ-

The Excalibur— from original sketch to the most powerful fighter in the Confed fleet.

ence in the camera that they use to shoot the actors with, and virtual cameras in Alias. There is a very profound discrepancy in the way those two things perceive perspective. It's often very difficult to get things to match up. We had to tweak the hell out of them. There's no good system for doing it—it's almost an impossible task.

The original plan was that we'd go from the storyboards and set up our cameras in Alias, then ship those renders to California. There, they would make their cameras match ours so we'd never have to touch them again. It was just a fantasy. Out of the maybe two or three hundred camera angles in the game there are maybe six that didn't change. It's kind of frustrating because we spent days getting just one background right, or throwing in detail where something is missing, and nobody will ever notice. All anyone is going to be looking at in that one shot is Mark Hamill's eyes or something, and not what's going on behind him. The thing is, if we've succeeded, no one's going to notice it. I guess the sets we're most pleased with are the Flight Control and the Barracks. The Director of Photography helped with those — we learned a lot by watching him. Just the amount of stuff I learned about lighting and camera angles was amazing.

I had a blast down at the shoot. It was kind of like going to survival camp, it was pretty harsh out there. They ran us pretty ragged, working long hours. There are certainly a lot of personalities out there. And earthquakes, smog, traffic, actors, actresses ....

Q: Were there any unexpected problems?

CD: Yes, indeed. Yes, indeed. The first and greatest surprise for the artists was that we had about two years' worth of stuff to do, but only one year of time to do it. The second surprise was the hardware. We needed high-tech computers. We needed lots of them. At first we thought that one Indigo II, and three Blue Indy computers would do the trick. Then we realized that we couldn't use the Indies, and had to replace them with Indigo II's — then we needed another Indigo II.

But then even that wasn't enough. We had to have an Onyx — which is a super high-end multi-processor system. Then we needed a vault for the Onyx to hold enough drives to supply all the data storage. That's not even mentioning the software. *Wing III* needed to be designed in Alias — it creates graphics superior to 3D Studio's artwork. It provides a higher quality for shading, lighting and texture because it is a ray-tracing program. All in all, the hardware and software costs mushroomed to a lot more than anyone expected.

Q: How did interactivity change the way you designed backgrounds?

CD: I learned about integration. Part of the job of the artists is to give some way to integrate the background with the characters on-screen. Small things make a huge difference. If an artist incorporated a red light onto a wall panel, and whenever an actor leaned near the "wall," a tech highlighted his face with a red glow, the two separate elements are linked. The idea that there was no wall there at all is harder for the viewer to imagine. The shuttle was conceived with the same effect in mind. It was designed with a grid over a red light that would cast shadows on everything below it. The walls were rendered with parallel shadows. When the actors were filmed for that scene, the crew put a thick wire mesh in front of the stage lights, so that the viewer would perceive them as actually being within the set.
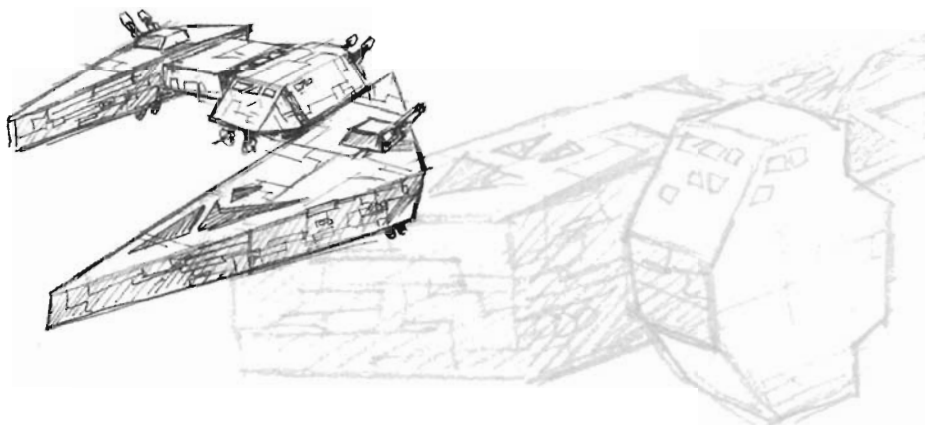
Original concept sketches by Chris Douglas for a number of the Terran and Kilrathi ships.
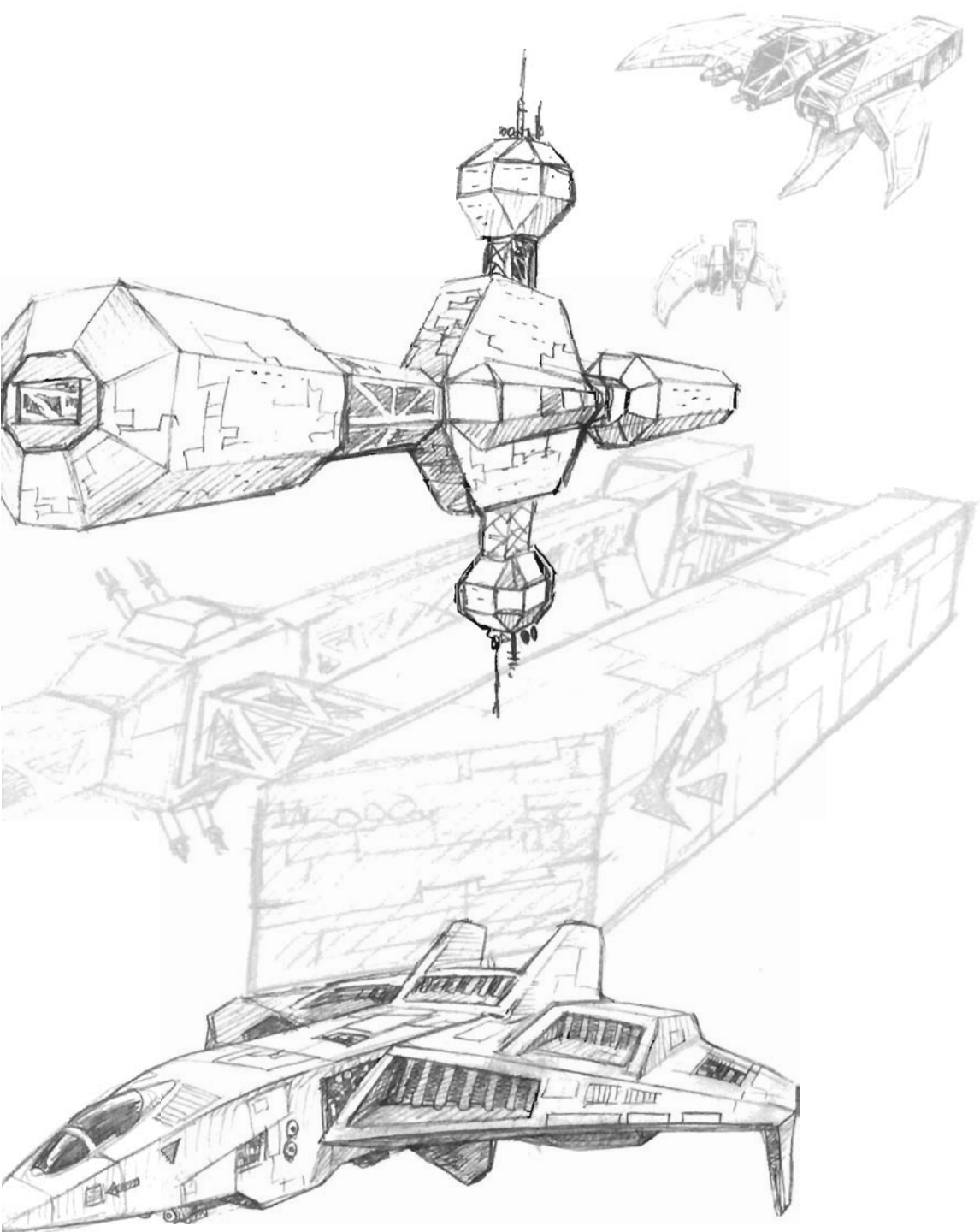
PRE-PRODUCTION

SCRIPT

Wing Commander III, ORIGIN's first interactive movie, needed a script.

In a very real sense a script is the backbone of a movie's creation. Everything is connected to it. It gives shape and movement to the process of construction. Rich Hilleman, the head of Electronic Arts' Simulations & Movies division, made the suggestion that before the script was created, a Story Editor should be found.

Hiring an editor before hiring a writer might seem a little backwards, but one factor kept arising to haunt the "Hollywood" side of the project. They needed a movie, not for a theater screen, but for a computer monitor. That difference was something that was guaranteed to cause headaches and misunderstandings with anyone used to dealing with the regular film-making industry. The Story Editor was hired to act as a liaison between the two worlds, making sure that everything was understood as clearly as possible. There was no time, or budget, for mistakes.

Donna Burkons was hired to be the Story Editor. She was found through an EA producer familiar with the Hollywood community. After meeting with Chris Roberts to learn what he envisioned, she went out on a hunt for writers. She found two. Frank DePalma and Terry Borst were a writing team who had worked together for several years with consistently good results. When Ms. Burkons outlined the situation to them, they were intrigued.

Non-linearity is an unusual concept for movie people. It's not even as easy as the books where, if the reader wants the detective to go into the attic, then he should turn to page 64. It's much more complex. There are many branching paths that affect morale, and depending on what level someone's morale registers, the path you follow can be quite different. All your steps from that point change. In general it all fits together, but it isn't easy or linear — and it certainly isn't what people are used to seeing.

Richard Johnson sorts and cross-references the volumes of paper work on his makeshift desk in L.A.

FRANK DEPALMA AND TERRY BORST, SCRIPT WRITERS

Q: What did you think about the project, at first?

FD: We liked the logic problems of a story that branches in different directions, and then maybe meets up again. There are emotional events that you may or may not encounter again. There are ripples outward, and everything affects everything else. It's a story where something different could happen every time you play the game. If you meet a person once, then the second time there is a past already from the first meeting. The next time you play the game, though, perhaps you don't meet that person in the same situation. There are going to be a lot of writers who don't like that. We did. We enjoyed it. It made the challenge interesting.

As a matter of fact, after the first draft we had to trim it down. We got carried away writing scenes that — even within the scenes — branched. We had it to where whole conversations would branch to the point that they couldn't shoot them all. There was too much for the budget, and for the space of the CDs. Interactive can get insane and undo-able really quickly.

Writing scenes for a branching storyline created challenging logic problems for the script writers.

Q: What were you given to work with?

TB: We were flown to Austin to meet with Chris Roberts. He explained his ideas and a general outline of what he expected for the game. He also gave us a mission list that had been designed by his team.

There was no script, there was only a very broad-stroke storyline The situation with Hobbes, and so on. We had continuing characters from previous *Wing Commander*s, and the idea that we were completing the trilogy. We also had missions that were fairly detailed. It was a little like having a storyline. We had to connect the dots so that the story and missions would match. Then we had to write the screenplay with all the ancillary scenes and contingency scenes, like your death scene, your wingmen's death scenes, and even some scenes that I'm not sure made it to the final cut.

FD: We had to learn about the *Wing Commander* universe and what had been done before. In the previous games there were stories and distinct characters. We pored over the previous writings.

They came to us with the missions all planned out. Hidden in those missions was the storyline — the winning game and the losing game. We started with their skeleton of the missions, and broke it into seventeen or eighteen sections We called them "acts" because that's what we are used to. Usually a movie has three acts, so this
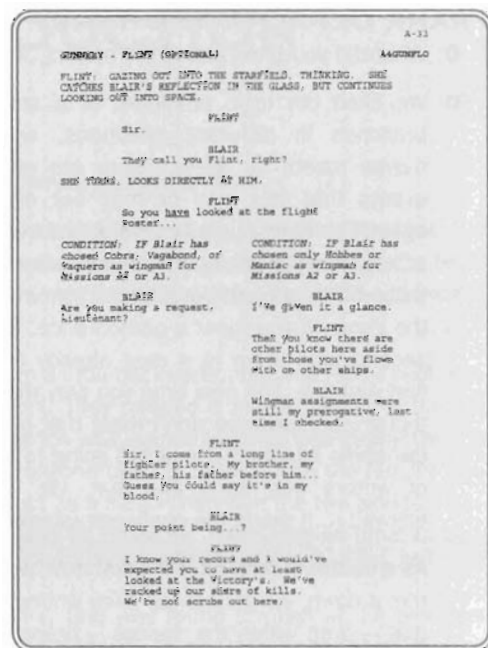
was a little like a mini-series. Each act had about three or four missions. When we were given a list of missions, we fleshed it out with an outline. It was a very long, multi-page document that described all the scenes that would take place with one paragraph for each scene. Then it was distributed — it was important to get the outline to everyone because, even though we were told we could change the missions, we weren't programmers and we didn't know what was possible. Everyone at ORIGIN said, "Don't worry about that, if you can think it, we can do it," but we didn't know if that was true. We gave them the outline and discussed that, made the changes, then immediately jumped into writing the script. We did two drafts of the script. We did it in a much shorter amount of time than we were used to for the movies, which was strange because it was such a long script.

Many game conversations depend on the player's actions — both past and present.

We created character relationships and subplots that interwove with the missions. People react to the state of the war, and to which track you're on. From the skeleton of the missions, we put on the muscle and skin through relationships and story.

Q: Was it different to write for a game?

TB: Besides that when you write, you hope that it's showing in a theater full of people?

FD: When you're writing a movie, you often think of many different directions in which you'd like the story to go, but you can only choose one. You agonize over whether you chose the right one. With this, it's interesting because if you do have more than one idea, you can explore several and see where you go. It's more work. You want all the choices to seem valid. A game where one choice is better than another wouldn't be any fun. It was a struggle to make all the choices seem like good ones. We pulled our hair out late at night looking at our two hundred index cards on the floor between my living room and my dining room — trying to see how these things are going to affect each other. You'd say "in this scene, Blair is going to say this," but then you realize he can't say that unless Blair has seen this other scene, and you don't know if he has or not. Then you have to think of something that he *could* say. None of that comes in the course of writing a regular movie. It's all drama and character and story.

TB: We tried to keep the characters equally balanced--where the player doesn't say "this one is obviously better than the other." Where there are choices, hopefully one won't be evidently better than the other. Which one raises the morale? Which one lowers the morale? The idea with Maniac's morale was that it should never be obvious. We made a guess as to an evolution from the previous character. He seemed like the kind of guy who likes abuse since he's always dishing it out. If you cave into him, that's not going to impress him. You have to stand up to him.

Q: How does collaborating on a project like this work?

FD: Terry and I have been writing together for years. We just accidentally slipped into a way of working together that works for us. We spend a lot of time together only in the outline stage. We use little 3x5 cards. On each card we write out what happens in a scene. When the cards are done, we have a very good idea of what happens. Then we say "you do those cards, I'll do these cards." and we just modem stuff back and forth. Then at the end, we come together and argue about where commas go. We do talk on the phone when we write. Our writing styles were similar to begin with. Not exactly the same, but similar. Sometimes when the voices of the characters begin to evolve, you'll get "I didn't know that character was going to talk that way."

TB: The marvel of the modern age is that we don't have to sit together. We wrote this script in the days after the Northridge earthquake. You couldn't get around anyway. You had no choice but to stay home and write.
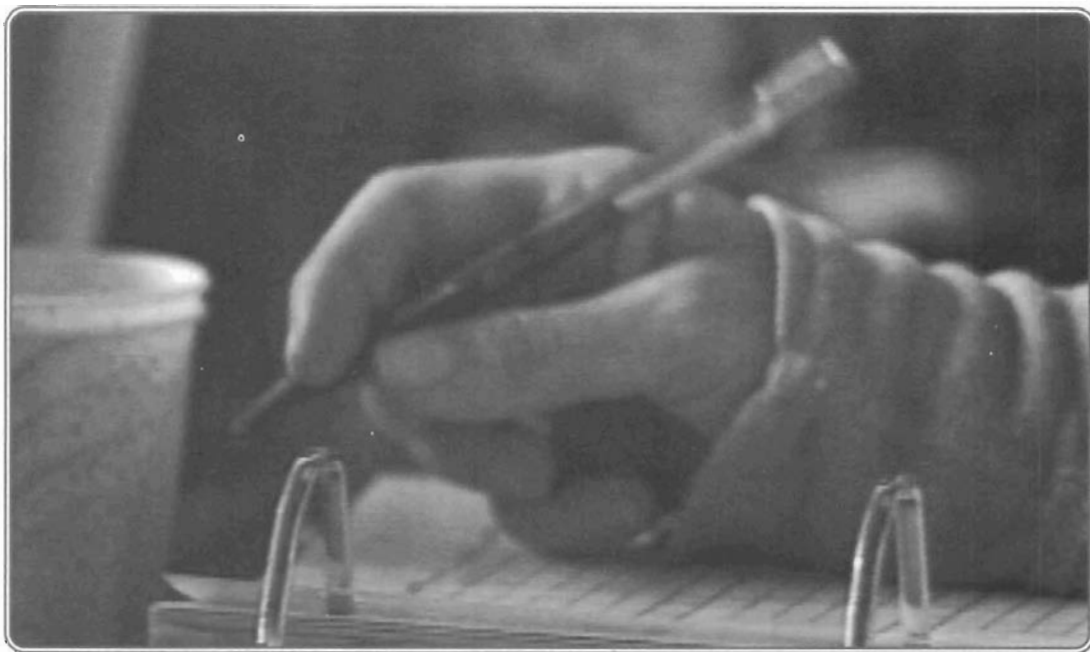
Frank DePalma and Terry Borst wrote the initial draft of the script in the days following the Northridge earthquake in California.

STORYBOARD

Even a normal script is intimidating ... but *Wing III* was so huge that it could make cast and crew alike turn pale. Part of the problem was visualization. Looking through a script doesn't really convey a movie's "character." Without understanding the look and feel of a production, many people—set designers, prop masters, even actors—are at a disadvantage. There is no certainty that their guesses would be right, and mistakes cost time and money.

The best answer is to transform the script into pictures. For this purpose, they call in a "storyboard artist." Such an artist has experience in envisioning, not only each scene, but how it will connect with all the other scenes, making it possible to visualize the connection process. In an interactive movie, this stage is even more important.

ORIGIN hired Marc Baird to hand-draw every scene in *Wing Commander III*. To guarantee accuracy, he worked closely with both the director and the Director of Photography. In a very real sense, every hand-drawn scene sets up the camera angles and shots. The artist re-drew any changes to the scenes as the production rolled on—with each new or changed scene displayed on a different colored paper stock.
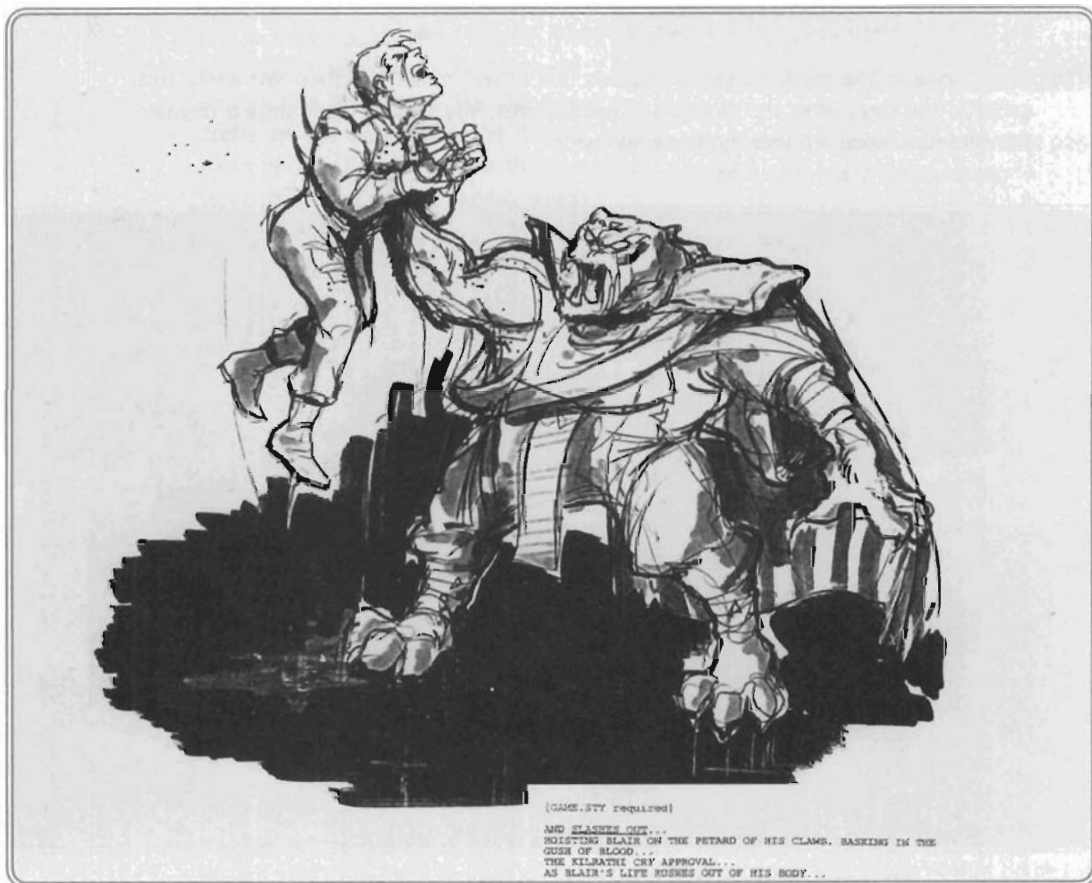
Marc Baird hand-drew every scene in the game before it was filmed, to set up camera angles and shots.

MARC BAIRD, STORYBOARD ARTIST

Wherever Marc sets up shop soon becomes a flurry of scissors, multi-colored paper, sketches and photocopies. To an outsider it looks like a kindergarten craft hour that has exploded — but it's an integral part of developing a movie.

Q: What was it like working on an interactive movie?

MB: Interactive movies are a lot more work than a normal film. The amount of work generated by the interactive medium was amazing. It was a huge script—it was bigger than any script I've ever worked on. It's an interactive movie — it was like doing three films all at once.

Q: How do you go about sketching it out?

MB: In the past, I usually used paper, pen and pencil. I've seen the wave of the future, though, and it's storyboards on computer. The guys in ORIGIN have encouraged me — and they certainly have the know-how — to move in a high-tech direction. I have a Wacom tablet with a pressure-sensitive, wireless stylus. I can push the pen on the tablet and the image shows up on the monitor. You are looking away from your hand and looking at the monitor. They have palettes that simulate brushes and textures, with a million colors.

Q: What exactly was your part in the production?

MB: Storyboards are like a comic book of a film. I'll usually read a script, sit down with the director, then we'll cover a scene. The director will describe the angles to me that he wants. Once we decide on the angles, I'll draw them out. It saves a lot of money, down the line, when a shot is being set up because it gives the crew a frame of reference. I'm primarily an artist who shows people what a scene is going to look like. It's one of the best ways for the director to communicate to the crew.

ORIGIN wanted *Wing Commander III* to be as cinematic as possible — that's why I was brought on. I really admire Chris Roberts because he was really more prepared than many directors I've worked with in Hollywood.

This high-tech storyboard was produced by Baird on a Wacom tablet with a pressure-sensitive, wireless pen that can simulate brushes, textures and a million colors.
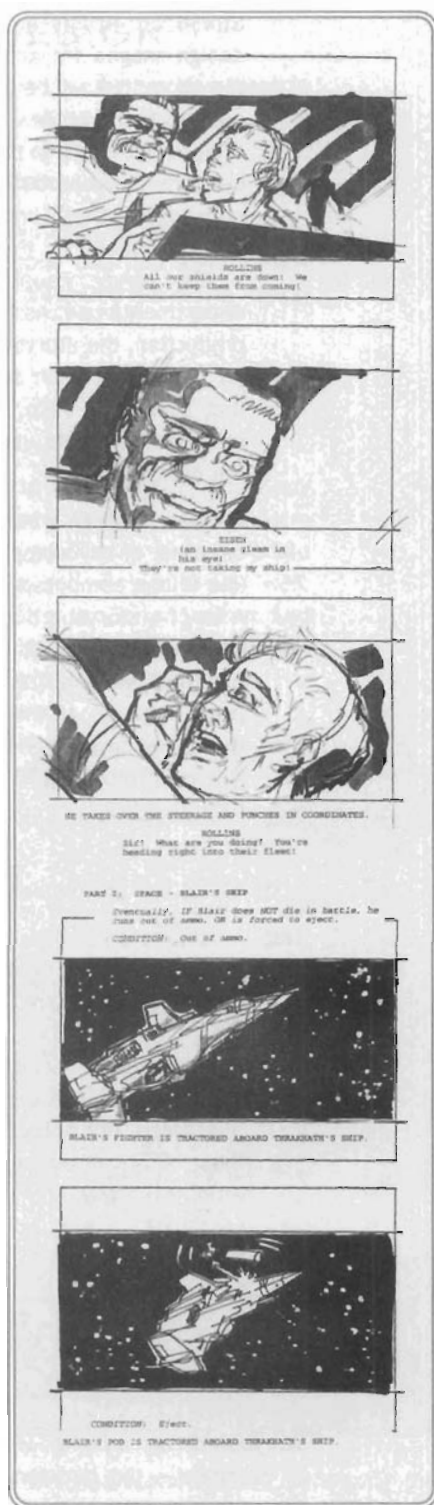
Storyboard artists are used in the early design stages for actually laying out all the shots that will be in the film. They are used to getting bids when there are a lot of special effects in the movie — you can send the storyboard to the special effects houses, and they'll know what effects are in store, based on the boards. They are a very handy, visual guideline that all departments use. As they are shooting in production, the storyboards are on-stage. As they shoot each scene, they'll check that scene off. Also, in post-production, many times editors use the boards to cut the shots together.

Maybe *Wing III* was interested in me because of my computer background. I like to use computers to do storyboards. A lot of a storyboard artists — their downtime comes from physically cutting and pasting. When a director changes an angle, instead of the artists running to the copier to enlarge it or flip it, we can just do it all in the computer before the page is printed.

Q: Was it like any regular Hollywood job?

MB: All directors are different. Some have all the shots in their heads. They know what camera lens they're using ... they'll say "that's a two shot — camera pans left to right, ending on a car which enters frame ... close up on a door, door opens, someone steps out." They know every little thing. Other directors say "hmmm, see what you can come up with," and then say "that's good" or "that's not what I had in mind."

Storyboards are a handy, visual guideline used by everyone — the director, the camera crew, the editors and the special-effects crew.
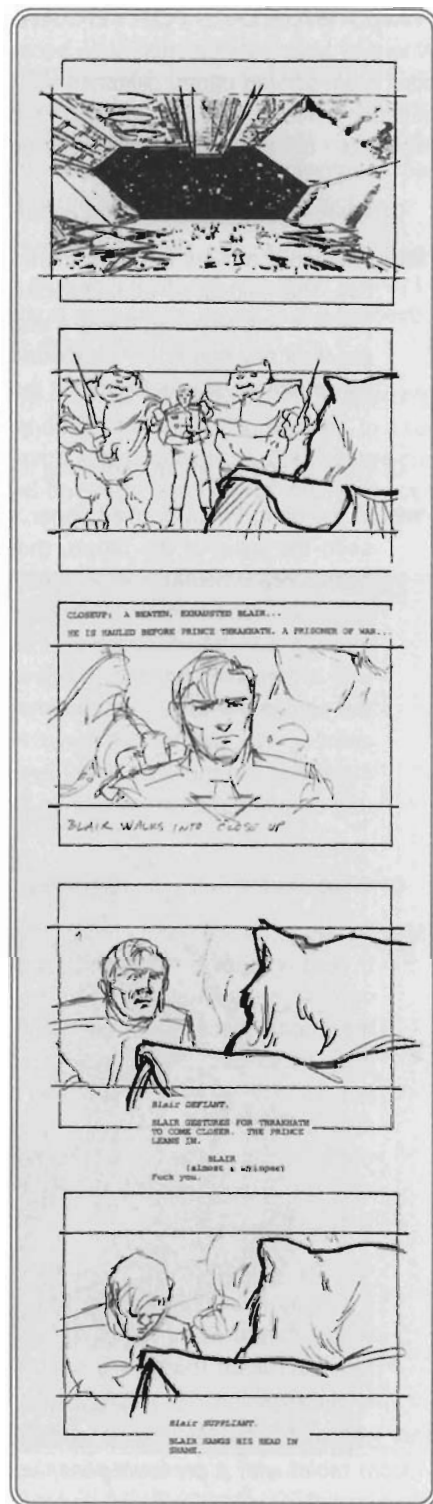
COSTUMES & PROSTHETICS DESIGN

The Texas Film Commission led ORIGIN to Crista Schleuteman, who conveniently worked in Austin. After Chris Douglas, the Art Director, had designed the outfits and the colors were chosen, she made the costumes. They were originally sewn with only general sizes in mind, and the outfits were later altered to fit the actors by an on-site tailor.

Designing the Kilrathi was a big problem. While Chris Douglas put together sketches of the Kilrathi, Adam Foshko was searching the West Coast for someone who had a good track record in animatronics. They found Precision Effects, who had previously done *The Abyss*, and had them build the Kilrathi.

CHRIS DOUGLAS, ART DIRECTOR

Q: Had you ever designed costumes before?

CD: Not real ones. It was a big unknown when we set out to do it. I didn't know any thing about the actual construction part of clothing, or how to make an actual uniform that was intended to be worn, instead of just looking good as a picture. Crista Schleuteman helped us out. We would work something up and she would say "well, that isn't going to work." For instance, the original designs for the Terran uniform had thick padding going from the wrists up the arms or going up the legs from the boots. It didn't want to fold right or lay over right. Then there were lots of little things, like having buckles where buckles didn't work or rearranging pleats.
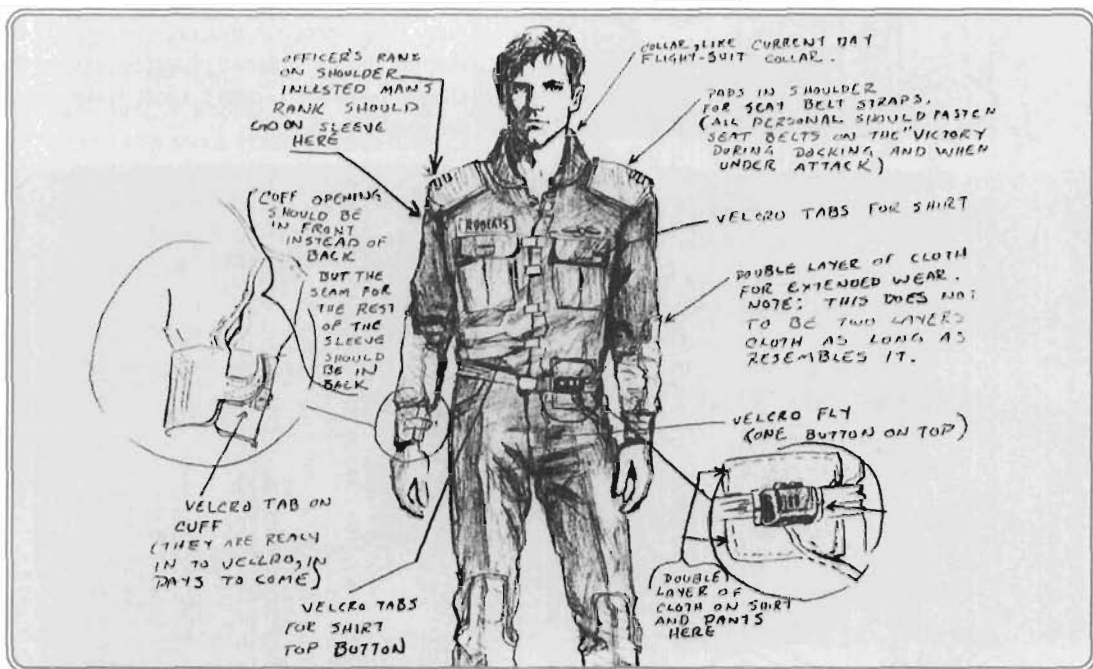
Though costuming isn't in any ORIGIN job description, Chris Douglas found himself pondering the relative merits of buckles and velcro tabs.

Q: How did you go about designing the costumes?

CD: For the Kilrathi clothes, I wanted to reflect a little bit of the way the ships looked — a Kilrathi feel. The original idea was that I wanted the Kilrathi aesthetics to be primitive. In my artificial history for the Kilrathi, they never had a renaissance period on Kilrah. Their *entire* history never had a era of peace where they developed art or aesthetics. They had been fighting and killing each other from the minute they developed intelligence. Kilrah was in constant war and tribal battles. They had been fighting, with warlords building clans until about a century ago when one warlord finally consolidated his rule. Then they turned their interest outside because all they had ever done was fight and conquer. They didn't do anything else. Peace wasn't even something that would cross their minds. When they finished one war they would think "who do we conquer now?" They would never think "oh good, we're done with a war, now we can just sit and relax." They'd never honed rules of perspective and aesthetic composition. They're super-advanced technologically, but not aesthetically. The only cues they would have would be to make something look aggressive. They would have spikes, tooth necklaces, maybe one arm would have a personal computer and the other would have ears of vanquished foes. It would be a mix of Zulu warriors and super space-age tech. At some point in the arduous process of getting them built, that didn't come through at all. We could have done something a lot more striking with more time...and money.

We got to the point when there was a big rush to start building them. When we finally found the people who could do them, we had to make a bid and get them done *now*.

Alan Perez created the original sketch of Rachel. But the finished character, played by Ginger Lynn Allen, didn't sport spikes or a futuristic Marlboro!

Q: Were they not what you had anticipated?

CD: Some of the colors that I'd originally intended were changed. They came out being bright colors, which in retrospect was probably good because it is easier for the computer to compress colors with more contrast. My original plan for Thrakhath was that he would be dark and moody. Dark red and gray would have been more menacing. However, the materials they could get readily—and they needed huge amounts of cloth —were in bright blues and bright reds. The materials were more complex than I had imagined. They wanted a specific kind of material that would drape across the bodies, without looking stiff, that would look good on camera and that wouldn't be too shiny for the greenscreen. My dark red and light gray weren't two of the colors available in those materials. It couldn't be helped.

The Kilrathi themselves were a completely different problem. We had to design the creatures as well as the clothes they wore. The Kilrathi we got at the end resemble, but don't match very closely, the original conceptual design. One of the biggest things was the prosthetics. There's a kind of skull that these guys make that has servos that move the eyes and the mouth and all that. It already has a set shape, and you can't deviate from it. The Kilrathi I designed were more feline, they had a jutting jaw and a sloping skull. They had more of a snout. I tried to make them more alien looking, too. But the servos couldn't make the jaw stick out. If I had known that from the beginning I would have done it a little differently. It was another one of those things where you have to design it first and then figure out how you can create it.

Prosthetic devices played a large role as the Kilrathi sketches evolved into virtual costumes. Because of the servos, the jutting snout had to be shortened considerably.

SHOOT PREPARATION

Donna Burkons, in addition to being the Story Editor, was the L.A. producer. In that capacity, she found a variety of stages in California and had Chris Roberts, Adam Foshko and Richard Johnson fly over to look at them. There were certain constraints: it had to be large enough to fit the scope of some of the scenes, had to have a great deal of electrical power and had to be large enough to fit at least one crane. There had to be a section that could be set aside for the creatures, plus it had to be able to house the Ultimatte operations. That meant there had to be a Hard Cyc - -which is a background that merges the floor to the wall, on three sides, with no sharp break. On top of everything else, travel time for the actors had to be taken into account.

DONNA BURKONS, L.A. PRODUCER

Q: How did you get started in all this?

DB: I was brought on the project to help Chris integrate motion picture quality writing and production values with exciting gameplay. With my extensive studio and production background, I knew that the right writers and a good film crew could make Chris' vision of *Wing Commander III* a reality.

All good films start with a good story and that's where we began. I contacted top Hollywood agents and managers and worked with Chris to choose the best writers for the project Once our writers - -Frank de Palma and Terry Borst-- were on board, the story was worked out and the script writing process began.

With the clock ticking, we pushed forward into pre-production. We hired a Hollywood casting company. Chris was specific and knew what type of actor he wanted for each role. Then the Production Manager, Pam Auer, and the department heads were hired. These included: Director of Photography, Virgil Harper; Art Director, Cherie Baker; Post-Production Editor, Phil Gessert, etc. The department heads in turn hired crew members to support them on the set.

Q: What would you say was one of your biggest concerns?

DB: Budgeting is always a huge part of the whole process. Of course you always try to lock down the budget, but with any film project there are bound to be unforeseen costs that arise during production.

Something as simple as paint, for example. We talked to the greenscreen people and found that we'd probably have to paint once or twice- -but instead we discovered that the floor had to be painted five or six times with special, expensive paint. Then you needed extra blowers to dry it overnight.

But when all is said and done, *Wing Commander III* looks like a big budget feature film because we didn't scrimp on the caliber of our cast, crew or equipment.

PAM AUER, PRODUCTION MANAGER

Like Donna Burkons, Pam also spends her every moment maintaining constant control of "details," from trash cans to living arrangements. Rarely seen without her walkie-talkie, she is also constantly using the phone to keep on top of the situation. Although a genuinely sweet person, the crew quickly learned that she has a no-nonsense attitude about professionalism and competence.

Q: What is a Production Manager?

PA: The Production Manager is the one who's in charge of all the details that go into the shooting of the video. I figured out what equipment and crew was needed, where we could find them and how we got them where they were supposed to be. I found all the bio's and credits for experienced crew. Then the director and Executive Producer called and talked to them and made the final decision on who to use.

Q: Was it any harder to find cast and crew for a computer game than for a movie?

PA: Actually it was the same as a movie - -the greenscreen and interactivity were the only differences. We started with a director who knew exactly what he wanted. Then we hired the Director of Photography. Chris wanted people who had done feature film — so the Director of Photography was very important. Virgil had done beautiful picture work. Harry Jarvis, our wonderful First Assistant Director, was the next person hired. He took the script and the amount of days we had budgeted and worked out a schedule of when we were going to shoot which scenes. He had to juggle the "day out of days" for the cast, and make sure it was the most economical way to shoot. On the set he made sure everyone knew what scenes were being shot.

Bob Kertesz, the Ultimatte artist extraordinaire, was also a key player in pre-production. He made sure that we knew what we could and could not do.

We also needed an Art Director. Cherie Baker was the only real choice for greenscreen work. Chris Douglas had already done the artwork so she did less concept, but she made it all work for the camera ... what the dimensions and depth needed to look like. She worked with Chris D. to make it look real on the set. She also figured out what pieces and floors would be real and which would be better off just as computer graphics. Several things were real—the lockers, the bunks, the bar and bar glasses.

Of course Donna was already in place. She was in charge of overseeing all script changes, tightening up dialogue, deciding what scenes were going to be where. As the Executive Producer, she had the bigger picture.

Let's see ... we had a good script supervisor. She was the person who had to know every little frame of tape, where it went, what it was shot for and where it belonged in the script. She also had responsibility over the continuity. She had to make sure it all matched and that the words were mostly correct. If the actors didn't say the right words, it might have given the player the wrong idea - -that is especially important in an interactive scenario. She took notes that went directly to the editor, who used them to know when the director liked the take and at what point he was going to pick up the

scene. What was amazing was she did all that at the same time.

And I was in charge of the details. Even one small little thing like the head of a camera not being there, it means that you can't mount the camera on the dolly and the shot can't be done. I had a lot of lists to make sure that everything was there.

Q: What are some of the most important things to keep on top of?

PA: People stuff. We had top-of-the-line makeup and hair people -- that was important. Actors really care about makeup and hair. They often wind up asking for the makeup and hair people to be replaced. It cost a little more, but we started with the best ones. The actors were ecstatic when they saw who was doing it. We had no complaints about the way anyone looked.

We had lunch catered by various people -- all of them very good. We also had a "craft service" table. Craft service is a continuous buffet. It's an easy way to gain 15 pounds. I always tried to have a lot of food and drink around. Drink was especially important because people got hot working on the set. Craft services kept people happy. When we were shooting, people had to stay where they were supposed to be, so the snacks were usually bite-size or something you could carry in your hand. The crew couldn't go anywhere ... they were trapped there until they were released.

Q: Were the hours that long?

PA: It wasn't like regular work hours—it never is, really. The only problem was because of the volume of the material, we went overtime. We should have had two or three more days, but we were trying to shoot within budget by scheduling ten- to twelve-hour days. Instead we went into sixteen-, eighteen-, nineteen-hour days. Remember, only the stars had places to lie down. Everyone got two meal breaks, but those are still very long hours to work. People were in a good mood anyway· the director set the tone and he was very upbeat.

Q: What problems did you encounter?

PA: A large problem was that the whole production was all one big special effect shot, with no practical set to speak of. There was some practical flooring in the throne room and a few other places, but 98% of it was greenscreen. In that situation, the actors never know where to look. It's very complicated, and the entire production was like that. No matter how much we planned, logistically it was a huge task to try and get 100 people all thinking on the same wavelength. Everyone had to be punctual, or the day went into overtime. Perhaps something wasn't quite done or something bizarre would crop up.

Also, getting the scene -- the actual background -- rendered in time for the shoot was unexpectedly difficult. The backdrops needed to be ready so that Chris Roberts and other people, not to mention the Director of Photography, could see what the shot was supposed to look like. If the background is hazy and dark, but the people are lit-up like they're standing under a floodlight, the final effect is going to be strange. Simply getting the background and actors to match up was a big problem.

JEAN-MARC CHEMLA AND PREM KRISHNAN, ASSOCIATE PRODUCERS

The single most apparent thing these two men have in common are the menacing piles of papers that have their desks surrounded. Utter chaos is kept at bay behind binder clips and manila folders.

Q: What does an Associate Producer do?

PK: The producer spends a lot of time representing the project. He'll go to a meeting and say "this is our project, give us money," or "this is our project, please don't cut our funding." or "this is our project, we'd really like you to do your work." He does the weekly, monthly, global issues. Someone needs to take care of the daily things like "my hard drive crashed, and I need a new one." The AP will track down a hard drive. In other words, he is an assistant (to the producer) with producer-like functions. He's the producer when the producer is not there.

Jean-Marc Chemla

Given that Chris was not in Austin for about half of the game development, that was a lot of work. When he was gone for three months, I was basically Chris Roberts, Producer, for this area. There were certain things I couldn't do, of course, and I'd give him a call, and he'd send mail to the proper people. In the meanwhile I was going to the meetings as his representative to say "we're on schedule."

JMC: Everything that is necessary to getting the job done—from getting breakfast for people that have been working all night to getting dinner for people who are hungry after a long day. We get hardware, software and other resources so people can get their jobs done as fast as possible.

PK: Also, whenever there were things that were administrative and not particularly game-related, I did them so Chris could concentrate on game things. When ORIGIN wanted a list of people's accomplishments and objectives, I collected them and put them in a folder. That way Chris could just sit down and read

Prem Krishnan

them, not go hunting them down individually. After he signed them, he gave them back to me to get everyone else's signatures. I also had to do travel arrangements for a time. Travel is a nightmare.

JMC: It was more than administration, though. On the post-production side I did things like checking for continuity problems by putting the backgrounds and foregrounds together with Jennifer Ayers. That was much more interesting—challenging—than the administrative stuff. I worked the subtitling system, making sure everything worked and looked good, and with David Downing, we weaved the video with the sound. I liked the feeling of accomplishment.

Of course, the greatest feeling was when it shipped.
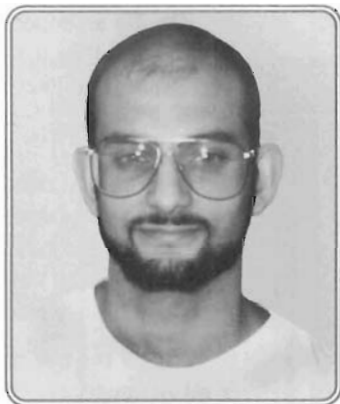
PRODUCTION

CREW

Part of the magic of Hollywood is that there are so many details entailed in creating a movie, it seems almost impossible for a production to be completed. The secret is hiring a good crew. When people know how to deal with any problem that could crop up in their particular areas, and deal with them quickly, only then can things proceed on schedule. Donna Burkons pulled together an assortment of professionals that kept *Wing Commander III* flowing throughout the five-and-a-half-week shoot.

KATE LEWIS, SCRIPT SUPERVISOR

When Kate Lewis is at work, she's a whirlwind of motion. A trim blonde woman, she can generally be found surrounded by huge notebooks at the Script Supervisor's table. One or more of the books will be open, with her busily transcribing while simultaneously keeping an eye on a close-by monitor, making thermal prints of scenes and listening to the actors' dialogue through her headphones.

Q: A script supervisor isn't a flashy title, but everyone I've spoken with considers it a crucial position.

KL: It's an important job. You can cost the company a lot of money if you make a mistake and they have to reshoot. I work directly with the director and the cameraman — and they don't roll if I'm not there. Unless they're mad at me.

I have three main responsibilities.

The first one is continuity. That's the big picture — the whole story. If it turns out that an actor doesn't want to say a certain line and it's important later on for Joe to know that the gun was in the closet because Mary left it there, then we're in deep trouble. I have to keep an eye on the really big picture, and also keep an eye on the tiny picture as well — what the actors are doing in each shot.

I'll start at the beginning. We shoot the master first. We shoot each scene in about ten shots. The master is the biggest shot — it encompasses the whole scene. Then we'll go back and do some two-shots of people, then some medium singles, then some close ups and inserts (inserts are tiny shots ... like fingers on buttons). While they shoot ten or thirty or even forty shots, I keep track of what physical actions the actors are doing as they say their lines. If he says "don't do that" as he lifts the gun, then I make sure that he says "don't do that" as he lifts the gun in all of the shots. I make sure they say the dialogue properly. If they don't, I check to make sure that the changes are okay. I also check continuity in terms of the wardrobe and the props and the set dressing and the hair and makeup. Each department is supposed to be keeping an eye on that, but I'm the last check. Nothing is supposed to get by me. That's when a mistake will cost money.

My second responsibility is editorial work. It's partially my responsibility that the shots should cut together seamlessly — so no one notices the cut. For instance, part of what

I watch for is "crossing the line." That's a mystery to a lot of people, but it's a common term. More than that, it's a big screw up if you do it. For instance, if Joe and Mary are talking to each other—and if we're to believe that they're talking to each other—Joe always has to be looking to the left and Mary always has to be looking to the right. If suddenly Joe is looking to the right and Mary is also looking to the right, they don't look like they're talking to each other anymore. It's only difficult because sometimes the actors are not looking at each other when we do the creative shots. When you get ten people around a round table, with drinks and things around them, it can get really hairy.

Plus, at any moment, the director or producer has the right to come up to me and say "how many shots are left in this scene?" and if there are five, they can say "we only have enough time for two, which two should we have to make this cut together?" I have to have that information whenever they ask, and they usually ask when I'm tired and haven't had a cup of coffee in two hours.

My third responsibility is paperwork. I keep track of everything that the camera exposes and that the sound records—what kind of film is in the camera, what the frame rate is, what filters were being used, what the lens is, what the stop is and when the camera roll is on. I do the same thing on a smaller scale for sound. I keep track of what sound we're recording, what roll it's on, if it's stereo and what's on which channel. Then I'm usually responsible for when it goes to the lab to be printed, although this was a much easier process with *Wing III*, since it was mastered onto video. We

do this business with circle-takes...it's my job to circle the takes and tell the lab what to print for picture, and circle the takes on the sound report and tell the transfer house what to transfer. Those are supposed to match up at the end of each day. I'd say, in the beginning of the show before a routine has been established, about 25% of the time something doesn't jibe, or the lab screws up for you, and you'll get calls from the production company saying they asked for, but never received "take 3 of scene 149 Charlie..." and you say "so call them up and tell them to print it."

For people who are predisposed to it, it's easy. It would drive a creative person crazy, but it's not hard for me.

Of course I keep track of the script. On the lined script, each of the vertical lines represents one of the shots that I was telling you about. For example, if you look across one line of dialogue you'll see some straight lines and some squiggly lines—say there are three straight lines that go down that dialogue. That means that you have three different size shots. If the line is squiggly it means that actor is not on camera.
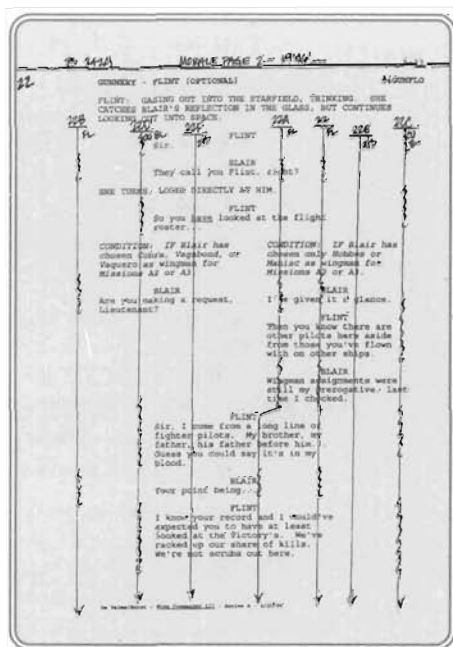
Script supervisors use these scribbles to track film types, frame rates, shot sizes, filters and sound channels.

I also do the opposite pages, which look like pieces of paper with two-inch square boxes on them that have scene description, takes, and whether they were any good or not. They include what we call code numbers, which are the file names of the computer-generated (CG) background plates. It was a whole new thing with the greenscreen. I had to keep track of what CG background we intended for them to use in the final composite.

It was an amazing amount of record-keeping! I developed terrible calluses from writing so much and had to wrap mole-skin and Band-Aids on my fingers.

Q: So interactivity made your responsibilities even harder?

KL: Interactivity made keeping continuity a problem. What seems to be the real key is developing a media space map.

A media space map is a physical model that shows everybody what the story is supposed to look like and displays what's going to happen. Setting out a physical map makes it easier to know if an actor is supposed to be in flight suit or fatigues. There are about 150 jobs that need to be done, and a good crew is specifically "tuned" to their specific jobs. They may not be tuned to the big picture. Any visual, educational aid that helps people deal with the big picture — and brings everybody together on the same wavelength -is vital.

What I did was to get four 4x8 sheets of foam core. I made a different color-coded index card for each scene number. Each card had the file name number, the scene number and the CG background number, what happened, if it was a mission, where you were, and what you were doing. It was a four-foot high and thirty-two foot long chart showing us where we were. We used it a lot. Believe me, the shoot would have taken us a lot longer if we hadn't had that map. It was something we could point to and say "this goes with this, and that means that goes with that. Got it." We're not used to interactive, but I'm getting better at it all. Someday I'll be making 3-D media space maps!

Another problem with interactivity is the line right before the branch. Usually when we were shooting we would say "we're going down the left side of the page." (That was "PL" in my notes.) But if the actor knew he was going to the negative side, he'd "color" the comment before the branch with a negative sound. In that case, the positive branch would sound strange. We had to keep them going down the middle of the road, *right until* the branch. You can't foreshadow. The good thing is that the actors were intrigued by the newness, so they were willing to play along. They even dealt with the greenscreen without complaint. It's a problem to act within the middle of this bright, green screen. They were really great sports.

A media space map is a physical model that shows everybody what the story looks like and displays what's going to happen.

Q: Did you enjoy interactivity?

KL: It was different. No longer are we the storytellers leading an audience along a story. We're letting the player tell *us* where *they* want to go. If the player wants to talk to Vaquero, and clicks on him, the player wants to be there, in a close up, *right now*. It's the opposite of what we're used to doing. We would never go from a wide shot to a close up. You kind of ease your way from wide shot to a two-person shot to a tight close up. In interactive, if the player clicks, it's gotta happen *now*. They're telling *us*. It takes away some of our power. That's different, editorially.

Things are changing. Let me give you my favorite example. A magazine came in to talk to Chris Roberts. The journalist wanted to know about the "CG" backgrounds, and Chris Roberts explained that back in Austin his technical people had got together and built all the sets, then put the cameras in the room and shot the sets from a number of different angles. The interviewer said, "Aha! I see! So these sets were built in Austin?" Chris was saying, "Yeah, yeah, and then we put the virtual camera in and shoot them and then we have all the angles, we use them here." The journalist then asked, "Why don't you just build the sets here, in Los Angeles?" And Chris replied, "We have all of our stuff, our shop, in Austin. It's just easier for us to do it there. It's more cost-effective." The interviewer responded. "But you could build them all from scratch here, and shoot from a real stage and not have to do greenscreen." ... It's a sign of change that they both say the same things, but are talking about totally different concepts. They thought they understood each other.

HARRY JARVIS, FIRST ASSISTANT DIRECTOR

In a production as large as *Wing Commander* there needed to be someone in charge of scheduling all the different elements. With each scene that needed to be shot there were numerous people involved. There was a real monetary danger in letting anything slip by unnoticed or unattended. Harry Jarvis, the first assistant director, kept everything moving smoothly. When an actor had to get all his scenes shot in one day, but his set wouldn't be ready until next Tuesday, Jarvis was the one who made certain everything fell into place.

Q: How did you keep something this big from collapsing under its own weight?

HJ: Someone had to schedule the show in the time allotted. I worked closely with Chris Roberts and the Director of Photography. I was the one who yelled "roll" and "cut." I was on the set, running the set, making sure that everything was going smoothly— that everything was set up properly. The more everybody knew, the better.

I made sure people knew what was coming up so they could be ready on time

Every day we put together a callsheet. A callsheet lists what order the scenes are going to be, who's in it and what time they have to come in. Every shot is a little different—especially when it is an effect shot. How long it will take to rig each effect varies. I needed to know, when we did two takes, how long it would be to do the second take, how long it would take to re-rig it and if we could be shooting something else at the same time. I kept track of a general overview—what effects were happening,

props, special equipment like cameras and cranes that we didn't need to have on hand all the time. People had to know what to order and prep for the next day. They also needed to see what was happening in the next couple of days, so they could prepare for getting them on the set. Every department was its own entity—and any communication with another department was done through me, the Assistant Director. That's what an Assistant Director does to make everything work, we keep everyone communicating. It's all a matter of making sure the left hand knows what the right hand is doing.

Q: Was it easier or harder with an interactive movie?

HJ. Interactive is different from film. Normally there would be a set with walls and floors. You set the camera, and if you need a different angle, you move the camera and leave the lighting where it is. For computer-generated sets, the camera doesn't move because it has to look at the green wall all the time. So if you want to go from a shot where you are looking over someone's right shoulder to looking over his left shoulder, you have to spin the universe around the camera, lights included. Sometimes we had to explain to the actors and lighting crew what was going on. Plus there are no reference points —you have to say, "Imagine that there is a window behind your left shoulder. Now turn slowly—the window is still there behind your shoulder, but just turn your body." Actors aren't used to that. Hamill figured it out, and could explain it to the others, sometimes he had to just say, "Trust me, it'll work."

BOB KERTESZ, ULTIMATTE OPERATOR

Q: What is an "Ultimatte"?

BK: Ultimatte is both the actual physical box, and the electronic equipment that works with the box. It captures two images—one from the camera and a secondary image that can come from a computer or a tape playback or another camera. Whatever the first camera sees green, it replaces with the image from the other video source. That's the basis.

In addition to that it generates an "alpha channel," which is a black and white image of the object on the green. The object is a white silhouette, and everywhere there is green is black background. The alpha channel is recorded separately. If someone changes his mind about the background, he can use the alpha channel as a "hole-cutter" to replace the background with another background by taking the actor and objects as an isolated element.

Q: What was the trickiest part about shooting *Wing III* on an Ultimatte?

BK: We always had to keep in mind that the lighting on the subject has to be the same as the background. That is what makes the actors actually look that they are *there*. If there was a light coming from camera right in the graphic image, the light on the talent had to come from the right. Also, there could be no color on the foreground that is the same as the background ... it would record as a hole.

We had to be careful about where shadows fell. We could make the actors' shadows fall on the background, but the background objects' shadows had to be pointing in the same direction. in general, also, we had to be careful that people did not look like cardboard cutouts. For example, an actor's hair could look like a "helmet." It couldn't be a round sphere around a face—details had to show through.

Q: What other things did you have to keep in mind?

BK: That the paint held out. We marched bands of people and equipment across it, cranes and stuff were crawling all over it—it was bound to get scuffed! Tire tracks will print through to the background, and show up on the graphics. If everyone hovered, it would be okay, but they don't ... so repainting was going to have to happen often.

There is also the lighting, always. When you're shooting a Ultimatte, you have to shoot on a Cyc—which is short for "Cyclorama." The reason you need to shoot in Cyc is because you can't have a hard angle. That would make a dark shadow that you wouldn't be able to get rid of. We curve the floor corners so we don't have any shadows. The curve starts about 2 feet above the ground, and stops curving about 2 feet from the wall. That way it shows up a solid, lighted surface.

Q: Was *Wing Commander III* a good experience?

BK: I would say so. Chris Roberts was a genuine surprise. He is a very talented director. I was astounded at how well he understood what needed to be done, considering it was his first time on any sort of major project at all. He understands the process extremely well. I thought the talent would eat him alive! A first-time director? I thought by the third or fourth day Mark Hamill would be directing from the floor. That didn't happen. He was very strong. He knew exactly what needed to be done, he grasped what the shots were, not only from an aesthetic point of view but from a technical point of view. He truly understood the processes of making a movie work, like how the camera has to be set up and how to deal with that. It was a very pleasant surprise. I thought it would be six weeks of hell, but he turned out to be very talented. I would work with him anytime, and that's a short list.

If you think summer's hot where you live, try lounging around in a heavyweight Kilrathi catsuit. Luckily, this actor had access to a portable A/C unit.

VIRGIL HARPER, DIRECTOR OF PHOTOGRAPHY

Q: What input did you have on a shoot?

VH: Once we were on the set, I had input on all the lighting. Chris Roberts had firmly in mind that he wanted the lighting to convey drama and mood. It was important for the dramatic effect and depth. I talked with both Chris Roberts and Chris Douglas about lighting schemes for the computer-generated sets — or maybe lighting *style* is a better phrase. For instance, if there was a window in the background that had sunlight rolling in, that would be part of the lighting style.

When I shoot on a real set, I can use lighting to achieve certain effects and mood. When I'm involved with a production and shooting on a practical location or real sets, I go to the location or sets before the shoot starts and come up with a lighting scheme or "look" — I'll know where lights should be placed and what the mood should be. I have the option on the set to change the lighting. With the computer-generated stuff, the lighting was already drawn into the set. So instead I'd go to Chris Douglas and say "I can use a motivational light at this location to make the character stand out." In shooting on greenscreen, motivational rim lighting helps to keep the cursed green edge from appearing around the actors.

A Director of Photography is a kind of director. The real director has the farseeing vision. The DP is the person who comes up with lighting that fits the director's vision of the project, selects lens focal lengths and compositions that enhance the scene, suggesting ways that actors can be placed in the shot to make the scene more interesting to watch. If I see something on the monitor, I have the privilege to suggest that if an actor walked to a certain point or moved a certain way, it would make the scene work better. It's always good to have a working relationship with the director, as I did with Chris Roberts, to be able to suggest things that would help the scene work better.

I was also there to help technically — to suggest what focal length lenses would help enhance the scene. We had some drawbacks because we were working in a matte situation where we have to matte the two images together — we had to cut mattes. The sharper the focus on the actors, the easier it is to cut the matte around them ... you don't get a fuzzy tear or lighting thing that won't work right. That limitation meant we couldn't get crazy with any long lenses. We couldn't have one person really soft in foreground, and someone farther background sharp, or vice versa, like one does in films in over the shoulder twos or raking shots. Instead we had to keep both people in the scene as sharp as possible. In greenscreen, a strong light also tends to keep a green edge from appearing around the characters. We had to design our shots so that the focus worked that way.

Before each scene, the production crew had to check every detail, from the camera angles to the costumes and greenscreen backdrops.

Q: Did you ever order that the background be changed?

VH: A lot of times the sets would be off in comparison to the way we decided to shoot the actors on the stage. The actor just didn't look right in the computer-generated set, or the lighting where the actors stood would be wrong. In that case I would call the artists over and say "I really need a light right here. Do you see where the talent is standing? It looks dead." Then they would go render a new angle of the set or place additional motivational light sources that would make the images work together. It was like having an additional crew working with me.

Storyboarding each scene out prior to shooting was a great idea on Chris Roberts' part—it was very handy. Marc Baird had already sketched out a lot of things that Chris Roberts had in mind, so I had a good idea where Chris was going to place a lot of actors. It help me see where there would be problems.

For example, Tolwyn's office is quite large. I told Chris Douglas I could see there was going to be a lighting problem. I didn't know how I was going to get that scene lit. I needed something changed. For example, Tolwyn was at his desk and was going to walk to a console sitting behind the desk, straight away from camera, farther into the set. I said if we could have him walk to camera—to a fabricated console in *foreground* —I could put a light on him from the console. I needed some light spots on the floor so that I could have them walk through pools of lighting. Chris Douglas was beginning to catch onto what I do, and what needed to be done.

There were lots of things. In the Barracks, there was sashwork overhead—that evolved from my saying "give me a grid pattern over each bunk," and Chris Douglas coming up with a whole overhead grid. Same thing in the shuttle. Those little grid pieces over the passengers— that red cargo-net pattern with the red light up above—that was something we worked out together.

In the Briefing room, Chris Douglas gave me little spotlights that rimmed Jason Bernard and the admiral. Same in the Bridge area—the admiral's hair just *explodes* white. Originally, there was no motivational light in there, but I like to see a background source for the light that is on the actors. We put spotlights in the ceiling and over doors. Those lights were great ways to put rim-light around people.

Q: What was the biggest challenge?

VH: The hardest thing to light and get any mood into was the Flight Deck. It has a high ceiling. If you look at the Flight Deck, it's very bright in the wide shot—but when Hamill confronts Flash, for example, we get into mood lighting. We put some shadow slashes across their faces that worked pretty well. The idea came from Chris Roberts. He said to play it for mood, and that's what we did— as much as possible.

ACTORS

Of course, no matter how much time and effort is spent working on art, game dynamics and organization, the first thing that people notice in an interactive movie is the "movie" part. This is especially true when the player sees his own character on the monitor, walking and interacting with other characters. The acting carries it all.

MARK HAMILL, "BLAIR"

Q: How was interactive different?

MH: I had already done one interactive game — voice-over only — and I approached that one just like I would any animated project. It was *Gabriel Knight*. When my agent said there was another interactive game, I immediately thought of the same thing. You go in a studio, you read the lines, you don't memorize ... you certainly don't perform it. I don't know at what point I realized it was going to be live action. I think I learned from a meeting with Chris Roberts. When I met him, I was very intrigued by it.

I've been in the business for twenty years. You look for ways to keep fresh. This was certainly something that I responded to. I've always loved games, puzzles, 3-D movies, etc. I'm saying this because I'm not coming from a gamers' background at all ... my kids have cartridge-type games, that's as close as we come. Even though we have a computer, we don't really have a lot of computer-type games. But it sounded good. I just thought Chris Roberts was the ultimate *auteur*. He designed the games, he directed the piece.

One of the major challenges in greenscreen acting is to avoid imaginary walls and furniture during filming. Here, Mark Hamill and Jason Bernard take a breather as they survey the last take on video.

Q: What attracted you about the character Blair?

MH: Initially Chris offered me the Maniac role. I thought that was great. It wasn't much work, but the reason I went to Broadway was to play character roles, and that character would certainly be unexpected for me. When Tom Wilson became available, he seemed so much more right for the part — so they asked me to play Blair. I was kind of looking forward to playing comedy, and Blair certainly isn't a barrel of laughs. Then I thought, if I'm going to play Blair — the player's character — it would be so much more hands-on. I'd be there every day. I thought, "I should try this. Maybe I won't like it, maybe I will." As it turned out, I really, really enjoyed it. It turned out to be a great bunch. We lucked-out in terms of cast. Most of the actors who came on the set had certain trepidations. It's a fear of the unknown. We know what's expected of us if we're doing a television show or movie or play. You worry if you're going to be able to do all the variations on the scenario. You don't want to get up and make a fool of yourself in front of a hundred people. When I was doing *Gabriel Knight*, I had the lines right in front of me · as you do in animation. You don't have to memorize in animation unless you're looping and you don't want to be looking at a page. In *Wing Commander*, after I had been there for a week, I was already the old-timer. The new actors came in and didn't know what they thought about all this. I could be reassuring. It was more like a normal movie experience than it was unlike it ... except that you would get a print, and everybody was happy, and then you would have to do the alternative column. It felt sort of schizophrenic in a way. There are so many variations of what you're supposed to accomplish.

I remember laughing a lot as things got rolling. Of course they cut all that out. Tom Wilson particularly, and Malcolm MacDowell were very funny. We had a good time.

TOM WILSON, "MANIAC"

Q: How did you feel about doing an interactive movie?

TW: It was great fun, we had a ball. Mark and I and the actors, and even the technical people got into the swing of things. It was interesting.

There wasn't a lot new to me because I had worked in the *Back to the Future* films. I'm pretty accustomed to working in technically oriented sets, filled with computers and guys with big plastic pencil holders who know how to run very technical equipment. I was kind of used to that. It was very interesting to me that we did the whole project with the greenscreen behind us. None of the sets were real ... not one is real. They are all computer-generated paintings that were put on behind us. That was fascinating. We were on a soundstage in Hollywood, painted with *bright green* paint. You'd get on the set and say "what is this? A Nickelodeon show or something? Everything is bright green!" People would tap on a two-by-four that was placed right on the scene right where a keyboard would be. It was green — everything was green except the people. But on the monitors we could see all of the sets and places on the ship where the scenes were taking place.

The ever-humorous Tom Wilson (Maniac) entertains a co-worker during a short break. He compares working on Wing Commander III to his previous experiences with the Back to the Future films, which also relied on computers for special effects.

Q: Did that make it harder than usual?

TW: You just had to use your imagination a little more. When you looked out of a window, you had to pretend that you were looking out at some vast galaxy instead of a bright green wall. They would describe to us the setting, and where we had to move ... and where we had to be careful not to move into because there was a "wall" right there. Then we could go and look at the monitors ourselves and see how it would work. It was an imagination challenge.

Mostly though, you found yourself just concentrating on other actors. That was what the scenes were all about, really. When you're acting, it's much less concentrating on where the keyboard that you're typing on is. than concentrating on the other performers and what the scene is about. They'd say "Hey! Don't step over this area, or you're behind a wall," or "Don't step over here or you'll step into one of the fighters' engines." Sometimes they would mark it on the floor or have things like green, painted two-by-fours. I pretty much concentrated on the other actors and how the scene was going.

It was sort of interesting to look into the camera and wonder if the player is going to click on me. Although we weren't really concentrating on the player, much. We were concentrating on the script and on the scenes in which we were playing. We were performing scenes with other actors, which is what it is all about.

JASON BERNARD, "COMMANDER EISEN"

**Q:** What's the attitude of the acting community toward the interactive community?

JB: There is a certain snobbery about this kind of field. That a real actor wouldn't do this kind of thing. Like there used to be a snobbery about real actors wouldn't do commercials, and now most actors are running around dying to get into commercials.

All forms of acting are basically the same, but they have different ways that you go about doing it. If you're doing a sitcom or a movie or theater — they're all different, have a different approach. The approach that we have here is that you have to be more flexible because you have to play two different ways. You can't be staunch, one way, and not be able to recover from that. You have to do the same thing on the same day.
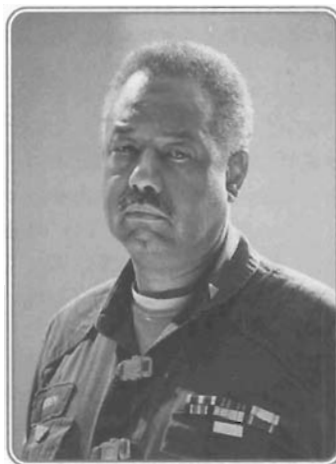
Q: Did you have any reservations about this project?

JB: I knew that this was a first-time director and usually first-time directors are a pill. Now, I would avoid a question rather than answer it dishonestly — I think Chris Roberts is very good. I think he's good because he has in his mind what he wants, he's patient enough to show it to you and he listens to what you have to say.
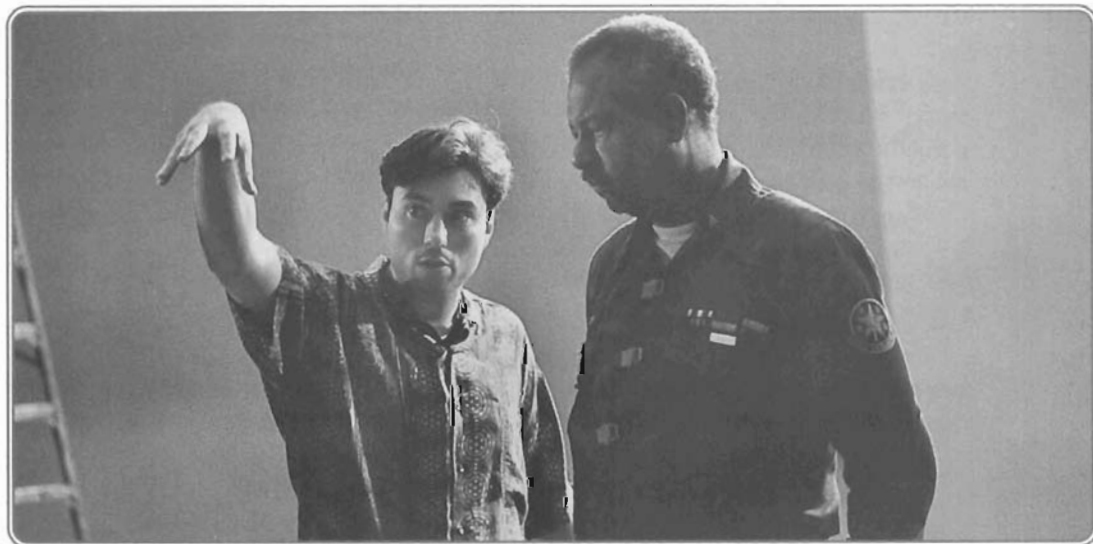
Jason Bernard listens intently as Chris Roberts describes Commander Eisen's actions in the next scene. Bernard praises Chris' work as a director — quite a compliment, coming from someone who labels most first-time directors as "pills."

PYROTECHNICS

ADAM FOSHKO

Q: You did the pyrotechnic shoot?

AF: I directed the pyro shoot. Mark Galvin was producer at Dreamquest, but Robert Staadt actually produced the special effect shoot.

I had an idea of what we wanted. We went out after midnight out in the valley where Dreamquest is located. It's in the hills. They had a pyro shop in a great van out there. We went up to the van, the doors opened up and there were guys in there who had everything you could possibly want that go boom in their little wagon. They were inside their shop pouring out grains, weighing out small measurements of explosive charges, making little sacks. We could look at small, medium, large explosions, colored explosions, bits with debris, anything like that.

Then they went outside to two very large scissor lifts that could go up thirty feet or more. They took the scissor lifts up into the air and they had underneath a wooden-frame station where a high-speed camera was placed under Plexiglas. They were shooting straight up because these were space-shots — there's no gravity out there, so you couldn't have debris falling in just one direction. They had a kind of clothesline between the two scissor-lifts. One guy would take the charge, attach it to the line and wheel it out to the middle of the frame where the explosion was supposed to be. They would roll camera and we would all take cover.

Later we looked at the result. It was shot at high-speed, and we would go through it frame by frame to see if we liked it. We did a bunch of those, and there were maybe thirty keepers. Then we did gravity explosions.

They went out basically behind their office buildings. These were *big* explosions! You could *feel* the heat. They had covered the side of the building with black, and they put these little mortar bowls with the charges inside. From way back we would roll the camera and huge fireballs would go into the sky.

AUDIO

EFFECTS

There are about fifty sound effects in the *Wing III* game — from shields being hit and missile fly-bys, to bomb doors grinding open on terrain missions. Sound effects are an integral part of a game's enjoyment. (Yes, they do know that sound doesn't travel in space. They also know that silence is less fun.) The effects were created by Neno Vugrinec, an ORIGIN musician who works in a multi-windowed office that would be bright if he worked during the daytime. "I like to work at night," he asserts. "It's hard to work when you can hear five other composers creating their music through your walls. At night it's quieter and I can get more done."

NENO VUGRINEC, SOUND EFFECTS

Q: Do you make each sound effect from scratch?

NV: Every sound effect is concocted from a variety of other sounds — usually five or more are combined to make one effect. First I study the research material of the sound. Some take place in crowds, or originate from the alien culture of Kilrah.

Then I go to the sound library. It's filled with different sound effects. Most are commercially produced, and some have already been made in the past by other effects creators. I scan what sounds have already been recorded, then choose which elements are going to be incorporated into the new effect.

Q: What kind of sound elements do you put together for a space sound effect?

NV: For example, the sound effect of your shields being struck — there is an explosive start that blends into an electric-sounding buzz. The initial, explosive "punch" is an actual detonation, but I only take the first half-second. Then there is the "buzz" from the library's recording ... it's someone using an arc welder on some machine. I erased out all the rest of the sounds in that one. I only took the hum-sound of electricity. Then I have the sound of machine-thrown sparks — I added that in for a crackle. I layer the different parts together to make an electric sound. But if you listen ... I put in a rumble sound of thunder. There's thunder in there, too.

For a fly-by I use a lion's growl behind the scream of an overhead airplane, like a jet in the Air Force. It even has a recording from a California earthquake ... someone was in an earthquake and recorded it, and I put that rumble in the fly-by sound.

I ask the designers questions about each effect — what exactly the event is. Sometimes the elements I add are so small that the player will never even be aware of all the work that went into each particular sound — like the lion growl. Another good example: when I talked to the designers, they said that the ships were getting old and worn, so for a bomb-dropping mission I added a "rusty-squeaky" sound to the doors' pneumatic servos.

MUSIC

In *Wing Commander III*, interactive music is the background music that plays while you are actually flying the game. As the mood changes, the music seamlessly changes along with it. There are close to fifty different musical "themes," ranging in length from just a few seconds to a couple of minutes. Each one relates to a particular type of situation that the player may encounter during combat.

The programmers incorporated a code into the program that signals whether a situation is good or bad. The program also keeps track of how many hits you've taken, what weapons you have, how many enemies are in the area, where they are in relation to you, etc. When the situation changes, the code detects the difference and signals a switch. The music continues to the end of the measure, then adjusts to match the current scenario.

In music, a "measure" is a unit of music that is only one or two seconds long. The system waits until the end of the measure before it switches to a new music theme. The music is designed in such a way that if the feel of the two types of music is similar—such as "I'm not doing too well in combat" and "I'm hit and the enemy is on my tail"—there is no discernible break between the different musical messages. The end of one measure flows naturally into the beginning of the next measure. When the game situation changes suddenly and drastically, though, a one-measure bridge is inserted between the two different sounds. This might happen if you had been hit several times and had an enemy gunning after you, but then fired the shot that took out a Kilrathi capital ship.

George Oldziey was the composer for *Wing III*.

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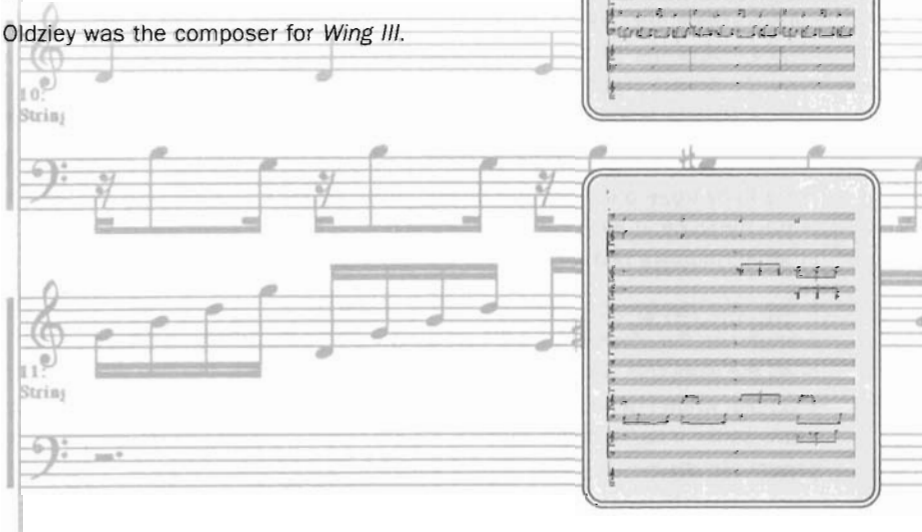
GEORGE OLDZIEY, COMPOSER

Q: Did you know how big the project was when you started?

GO: My first day at work, I came in and was shown to my office ... and then every half hour someone would come down and ask if I had anything. Eventually I was told what the project was. To tell the truth, I had never really played a computer game before so I didn't know what *Wing Commander* or the scope of this project was. I was composing merrily along for weeks, and little by little I was being told "You're working on *Wing Commander III*? Boy, that's really great!" It really wasn't until all the media attention that I realized that I was working on a groundbreaking project. That made it more exciting, but it's not really changing my approach to it.

The first time I met Chris Roberts, he told me what he wanted -- orchestral music; it had to be something grand. My bachelor's degree is in trumpet and I've done a lot of performing in orchestras in New York City, so I was pretty clear about how to get that kind of sound. I've also played keyboard and I've composed in lots of styles. The only fear that I have — and I love what I do here — is that I might get pigeonholed as someone who can only do an orchestral kind of music.

Q: What tools do you use to compose for the game?

GO: I have a very simple setup in my office. I have a PC with a sequencing program called *Cakewalk*, a MIDI keyboard controller — Kurzweil K 2000, which is a sampler — where I house all the orchestral sounds, and a VHS and a TV monitor that can display time code, which I use to synch the music to the video.

Q: What is General MIDI sound?

GO: General MIDI, basically, is several different companies' attempts to standardize MIDI instrumentation. If you're composing for our game (and we do support several General MIDI cards), "patch" or "sound #1" or "zero" is always going to be the same sound. In other words, zero and one are two different kinds of piano, etc. It's freeing in that you know that the music is going to sound similar on different cards.
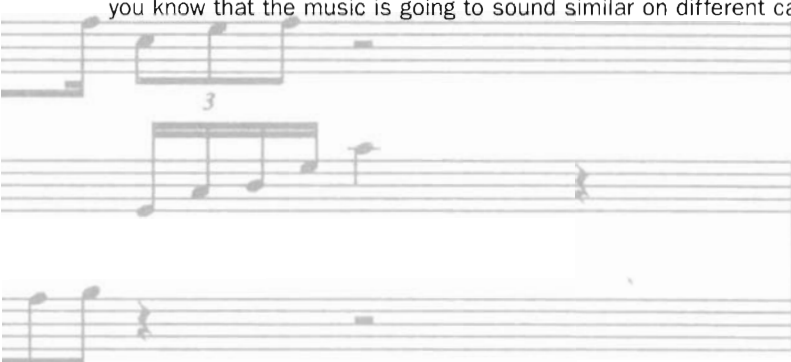
MIX DOWN AND LAYBACK

Mix down and layback are the final stages in sound. Martin Galway went to San Mateo to oversee the process. The sound effects, music, foley, art and live action sound were all re-recorded so they could cut the sound at the same time that they cut the pictures. They had all 15 or 16 different tracks, which they mixed down into a clean-sounding, finished product --the final sound.

After that, once the final sound has been created, it is usually "laid back" to the picture. Since the sound for *Wing Commander III* was automatically woven together with the game when it went onto the CD, this is not as important a stage. Regardless, it was done on the off-chance that in the future someone might need to return to the final stage.

MARTIN GALWAY, AUDIO DIRECTOR

Q: How have gamers' sound expectations changed in the last few years?

MG: In the last two or three years they've realized that sound is not just the beeps and bops of the original types of TV games. Right now they've gotten used to hearing digitized sound-effects, and we have had to work hard to improve on the last game they've heard. What they're not used to, yet, is hearing continuous digitized sound that's been made like a movie soundtrack. Once they get used to *that*, it'll be that much harder to impress them! I expect gamers will invest in better playback hardware for their machines, such as proper loud-speakers, and start to consider placement of their PCs in the home with regard to the audio.
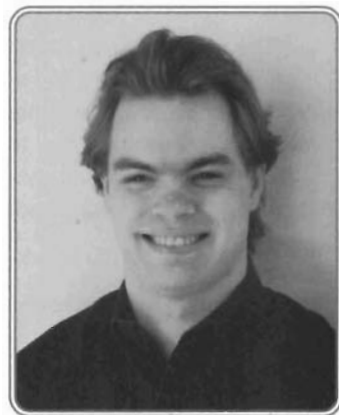
Q: How does *Wing III* compare to its predecessors in sound?

MG: It's a step forward in every single aspect. The sound effects are a lot better. We used high-end synthesizers and computer software for the first time to make them. There's much more dialogue than in any other game that we've ever done before, especially if you add the spaceflight radio chatter to the movie script. The music is naturally much better and benefits mainly from our use of digitized sound -this allowed us to use better instruments to play the score. In terms of digital data, we use 22050 samples/sec for the first time, and also jump to 16-bit sound. Now you can really appreciate it with the hi-fi turned up loud! Data of this quality takes up 4 times the space of the kind of material we put into *Strike Commander*, for example. Speech packs would have been rather large! Good job it's a CD-ROM .... Finally, the movie sound was created using much higher production values than we've had before. We've had sit-back-and-watch visual sequences in previous games, but never before did we supply a complete, synchronized, digitized soundtrack to accompany those visuals. That makes it seem much more real. It's an important technical barrier to have crossed, too.

Q: How do you match sound to the game?

MG: The movie was made on video tape. We have video decks. We play the video from the production, and we have all our sound on a computer hard disk. We synchronize the sound to the video — we have a multi-track recorder that records the output of the computer. Once all the sound designers have built up the multi-track tapes of the scenes, we go to our mixing studio and turn it into surround stereo and mono mixes — watching the visuals for reference, of course. During the mix, the movie video is actually on a computer, too, which allows us to spend more time fiddling with the sound to get it right. It takes a very big computer to do it, a big mixer and everything else. We've been using a *lot* more equipment than we did in the original *Wing Commander*.

Q: How much sound work was required for *Wing III*?

MG: When I came on the project, I saw there was a lot of footage and realized it was all going to need a basic ambiance track in the background, since you're on a spaceship. Well, *Wing III* actually has a lot more than just that. The amount of sound detail that went into every scene would have astounded us if we'd somehow heard the finished product before we started. It's a lot more sound than you might think of at first viewing. We had to watch the picture carefully, noting down anything that makes sound, and think about what was off-camera as well, just to make you think like the camera really *was* on the bridge, for example. It's very uninspiring to watch movie footage without the proper sound, too.

Q: Has working on *Wing III* been a rewarding experience?

MG: Yes, because principally it's the biggest game in the industry, ever, so far. It's always great at ORIGIN to be working on the biggest game at the cutting edge, the game everyone in the industry is waiting to check out. I have worked on many such games here. The team members just clicked right together this time, which allowed us to dig in and get the job done almost right on schedule, something ORIGIN is famous for failing to do. We know *Wing III* will be eclipsed in the future though; no doubt by others, but hopefully by us first! *Wing III* will be remembered as the first interactive movie.

POST-PRODUCTION EDITING

Editing is simply the arrangement of the pictures that have been shot or created previously. The director and editor determine where they go and how long each picture is. They ensure that it flows and has a good feel. They smooth out the bumpy parts and make sure all the effects —sound effects, music and animation—are working correctly. It takes a lot of time and energy. Usually the hours are ridiculous, which was certainly the case with *Wing III*. However, the editors can be proud that they got it done, did a good job, and all within a few days of the original, optimistic estimate.

PHIL GESSERT, EDITOR

Q: What exactly is off-line editing?

PG: It's the editing stage after shooting. Someone sits for hours tweaking and twisting, and then has to get approval from all the approval stages.

Most of the time when you watch a movie you don't really see the editing. That's the whole job—to keep you unaware that we're suspending your disbelief when we switch you around the room in various positions. When I first came aboard I thought it was going to be an easy job —only one angle and a static camera. Then Chris Roberts started twisting the camera, turned it around, got different angles on people —wide shots, medium shots, close-ups. When you do a scene you do the whole scene in all those shots. There is a close-up and medium shot, a wide shot, a two-shot ... and a couple different angles of each. Then all of a sudden you end up with forty minutes worth of film for a two minute scene.

Somehow someone has to pick out the correct two minutes out of that forty. I would get it where I liked it and someone else would like it, but the director would come in and say "I like it there, but that person doesn't have the right look on his face for that part of the scene," so you change the shot. You go back and re-look at all of those takes and find one that might be better. Or maybe all the takes are bad, and you hate them, so you try taking a different angle. Instead of seeing that person -- the one whose look you didn't like --instead you see someone else's reaction while that was taking place. There are ways around everything.

Q: How do you make all of these changes?

PG: We work on a machine called an AVID. It's a non-linear computerized machine, which is just awesome. I come from the days of editing film. There were little strips of celluloid all over the floor and all over the wall. Film was hanging everywhere. It took hours and hours to do one little thing. Now it's all computerized ... and AVID is probably the foremost non-linear editor.

Q: Is it harder to edit a computer-generated game?

PG: We had to re-do everything. It was a strenuous process for the post-production people. Every shot was a process shot. Every scene had more than one layer. In a normal movie, everything is one layer. You would go out and do a shot, and what you got was what you had. Not for us.

We had a foreground, which was the actors themselves. We had a matte pass for them — which "cut" the green background away from them so they could be plugged into a new background. Then we had a background plate, which was the room they were in. In many places we had stars outside of the windows, which entailed mattes to put the stars out there, and sometimes we had spaceships in the stars. Then there were the monitors within the rooms … we had to put something on their screens. In some places we had 15 different layers to put together for one shot. In a three-minute scene with 18 - 20 shots it would take us four hours to do that scene in the on-line bay because were compositing layer after layer after layer.

The biggest hangup was the backgrounds. Chris Douglas' team would create a background. We'd look at the way the background matched up against the actors and realize that if you were really standing at that angle, you wouldn't be able to see that door. Chris Roberts knows the ship, in his head, like he's been living there a hundred years. He would always know when the angles were right. Then we would tweak it down and move the door to the left, or whatever.

Q: You mentioned "compositing" the backgrounds. What exactly is that?

PG: When you do compositing, you are putting the layers together. You usually start with the thing farthest in the background. In the Rec Room, for example, the background is the star field. Then there can be a space ship that gets put out there. But in order to put the spaceship out there you have to cut a hole in the stars, otherwise the stars would show through. So now you want to trim it down to a hole the size and shape of the window in the room, so you only see stars where the window is. Then you plug in the room — you have stars and room and spaceship. If there are monitors you have to cut a little hole where the monitor is so that you don't see the blank surface that is really there. You then replace it with whatever was created to be in the monitor.

Next you have to worry about the actors. We shot them against greenscreen so that we could put anything we wanted behind them. We chose green because their uniforms were blue, but there is also redscreen and bluescreen.

You put it all together in a D1 bay. That's the new, modern technique for dealing with digital-quality video. When we worked on video tape, to get something this quality you'd have to run 16 machines at the same time so that it all funneled down into one image. Digital quality is so good that you don't have the generational loss. You just bounce back and forth … and each time you do, you add one more element.

Q: After you finish compositing, what then?

PG: Then is "on-line." On-line is final finished stage where you take the final masters. Instead of thirty hours it's only one-and-a-half.

Q: Is that it?

PG: No. There's always something more. The foley artist, for one thing. Foley artists make a living watching movies and tapping their feet. That's it. They are miracle workers. They see — on the screen — Mark Hamill walking down a set of metal stairs, onto a floor, across a floor, up a ladder and into a cockpit, and they just stand there on a little platform about two feet square, and when they finish tapping their feet it sounds just like Mark Hamill has walked those places. Then we add in the footsteps.

They also make the clothes rustle, and the sounds that you hear when people get out of chairs. They do sound effects like gunshots or body hits. All those things could be done in a foley stage. A foley stage has multiple floors with things like gravel pits and water areas. They can create the everyday sounds that a sound effects department would take forever to do ... all the one-shot sounds. Every scene in *Wing III* has foley. It's a low-level thing, but if it wasn't there, you'd notice it. When it's there and done well, you never notice. Ours was done by Pam Kahn.

Q: So foley is only sounds, never voices?

PG: Voices can be done the same way in Automatic Dialogue Replacement. Sometime someone would goof a line and just never get it right. We'd go ahead and cut it, and have the actors come back for a day to re-do lines. Some were parts the actors goofed up, but sometimes the sound man didn't notice that there was a plane flying overhead or there was too much wind that day, or whatever. They would just lip-synch to themselves. The actors stand there and wait for a little beep to sound when their parts come up. They try to make it sound just like they said it the first time. Sometimes whole movies are done that way when they don't have the time or money to get it right the first time. However, we had a great sound man and he did a good job all the way through.

put helmet on

TCR 01:16:00:02
REC   LOCK

201 D

put helmet on

TCR 01:21:29:11
REC   LOCK

(233A) 201G

Here, "put helmet on" refers to a sound effect that will be created in the studio and folded into the final product by a foley artist.

TRANSLATION

A relatively new department, Translations is housed in the recently renovated area that used to serve as the ORIGIN warehouse. Freshly painted walls and brand-new carpeting give their offices an airy lightness that is rare for the computer game company. However, their location has an annoying side-effect. The department that few people ever deal with is in offices few people have ever seen. They are as close to being invisible as is possible in a crowded building.

They barely had time to tack up their posters when they were handed the enormous task of *Wing Commander III*.

KIRSTEN VAUGHAN, TRANSLATIONS MANAGER

Q: At what stage does Translations become involved in a game?

KV: Usually we start to look at a game while it's in the Alpha stage of development. We want to get involved fairly early, before all the interfaces—such as menus—are designed. We like to have input on how the art is going to look, because a lot of foreign languages take more room.

Then the project gets a finalized script and we *really* get involved with translating it. Then, around Beta stage, we start putting the translations into the game.

Q: Was *Wing Commander III* different than the other games?

KV: Oh, yes. Before all the conversations were text only, so we did them like they were subtitles. *Wing III* is our first game to have live-action video in it. No one really realized the extent of the implication—including me. All of a sudden, not only were people talking, but we had the situation where the camera was right up in their faces, so you could see the lips move.

Something important to know is that films in Europe are dubbed professionally. The lip movements always track very well. For us to do a job that would look good to a German player—who see excellently dubbed movies every day—I felt we had to have a professional dubbing job.

Finding a professional dubbing studio was an adventure because I had no experience in that industry. We got some books that gave us a lot of information on the dubbing studios, and started calling people. Some studios are conservative and set in their ways. They would say "Computer games? What would we do with *computer games?*" Some didn't see it as a serious industry, and others would quote me something that was out of our price range. Finally I talked to a smaller studio in Munich, who thought *Wing III* sounded great. They were very cooperative.

Q: What goes on in a translation studio?

KV: In the case of *Wing III*, they did all the translation for us. Then they adapted the translation to the screen. The way that works is that they do a rough translation first, and then they cut the words down and match it to the lip movement. For example, if a word starts with an "m" or a "p," obviously the actor's lips are closed, so they try to match that with a German word that starts with an "m" or a "p" or some sort of bi-labial that would have your lips closed. They effectively re-write the whole translation to make it match the lips. They match words as much as they can. The ship name *Victory* in English is the same in German, so they try to say *Victory* at the same time as the actor on video does.

They have a big screen that shows the actor from the English version — for instance, Blair. First they watch the scene in English, and then they read from a script. On the TV there is a little bar that moves across the screen to show them about how long they have left to finish the sentence. When the bar reaches the end of the line, they know they have to stop. They're so experienced that in one or two or maybe three tries they can get the sentence to fit perfectly with the English dialogue. They did great work.

In a lot of cases we were able to get the same voice-actor that stood in for a particular actors on German television. For example, Jason Bernard, who plays Captain Eisen in *Wing Commander III*, is also a character in *Herman's Head*--we got the same voice-actor who does him in the German (dubbed) version. We had a couple of those cases — the voices we got were "known" as those actors' German voices. The quality was really incredible.

Then, when we were done with the dubbing, we got all the recordings on D1 tape and brought it to California. There we had to "mix" it all, i.e., strip out the English dialogue and replace it with German, and make sure it all still fit on the video. We worked with Murray Allen and Tony Berkeley. Then it came back to Austin.

Meanwhile my translators, Dominique Jumeau and Frank Dietz, were inputting the translated speech for the subtitles in the game. Once I came back to Austin Martin Galway started chopping the audio up into little bits and doing all the code processing audio-wise on it. Once he was done with that we had to weave the German audio-track into the movie. You had to connect the movie part with the audio part, which is called weaving. Jean-Marc Chemla and David Downing did a lot of that. As soon as that was done we could bring it down off the computer and put it into the actual game. There was a lot of stuff involved with the whole thing.

Q: Was dubbing into French any different?

KV: French dubbing we did with a pretty big studio in Paris. Dominique Jumeau cut the deal and supervised it. Basically the process is identical except for the way the French did the dubbing. They didn't use a paper script — they were even more precise than the Germans. They put the actual lines that the actors were supposed to say on the screen. The actor sees and hears the English on the screen as the French text is scrolling by at the bottom. The actor just reads off what's scrolling by and matches it to the lip movement.

To tell you the truth I couldn't see too much difference between the French and German dubbing. The German was excellent, and the French was so incredible that at times you think they are speaking French. You can't even tell that it's a dub. That's the way they do it in France — it's slightly more time consuming than the way they do it in Germany. But basically after that we went through the same process. We brought it back to California, mixed it, brought it back to Austin, did the post-production, wove it in and put it into the game.

Q: Did you run into any snags?

KV: The problem with *Wing Commander* was that everyone told me that there was about two-and-a-half hours of sound, slightly more than a normal movie. Well, it turns out it was over three hours of video material. No one really expected that — we hadn't realized that we couldn't look at it in a linear fashion. We hadn't counted all the different solutions, the options and routes you could take to different game finales. All of that, plus the in-flight communication, was somewhere between four and five hours. It took about two weeks to do it, so even though it was a lot of stuff, it went really efficiently.

While all this is going on we also had to put subtitles into the game and translate the menus. The problem with the subtitles is that we had to take into account all the length restrictions and other problems with translating a game like that. There is an extended character set. In German you have all the umlauts and in French all the accents and characters, so you need special fonts for if you are going to do a translation. Chris Douglas helped us with that.

Q: And then you were done?

KV: Not at all. As soon as we had all this together in the game, we had to test it all. Andreas Köhler, Jörg Neuman, Didier Jumeau and Karl Strand are our testers. A normal play-through takes at least two days. We managed to sign off the German within a little over a week of the English, and the French right after that. We had some American testers helping us, Jeremy Mappus and Anthony Sommers, just doing play-throughs to see if any speech was being rushed. It was sheer madness.

QUALITY ASSURANCE

After *Wing Commander III* reached the point that it was actually a game and not just an assortment of video clips and random missions, it was handed over to ORIGIN's Quality Assurance team. There Dan Orzulak was assigned to supervise the testing procedure. Every aspect of the game had to be checked: documentation, gameplay, hardware configurations and making sure the game is fun.

For a game as complicated as *Wing Commander III*, the checklist is extremely long. QA has to check that it actually works with each piece of hardware that it claims to support, including OS/2 and *Windows*, plus the sound cards, video cards, joysticks, joystick cards, etc. Then they inspect each scene's sound and music, making sure it's running correctly. Every ship must be scrutinized, to make sure nothing is incorrect. They also check all the keyboard commands. Every little thing that is in the game must be reviewed ... and can be found on the list.

The QA team works in shifts, late into the night. The game crashes often, which takes a lot of the thrill out of playing it. For the first few months, there was mostly just paperwork and swapping hardware setups in and out. When asked, though, the playtesters can usually find positive things to say ....

DAN ORZULAK, QUALITY ASSURANCE LEADER

Q: What is it like, checking the quality of a game this big?

DO: It's been a lot of work ... a lot of shift work and working late at night. It's been well worth it, though. It's a fun game. The most fun is when we can finally play the game, test it and find the bugs—especially near the end when there aren't as many bugs. Then you actually get to play the game instead of just playing for a few seconds, writing something up, rebooting the computer and starting up again.

Q: Does everyone in Product Support work on every game?

DO: No. It's one department, but we're divided into two sections. We have Customer Support, which is our phone support, and then we have the Quality Assurance side. The QA people, once they've finished a project, move over to the phones to help support the game. So right now we have forty-something employees ... or actually now that's more like 60. We have about 30 in QA. I have at least eight to ten on Wing III alone. That's not counting the dubbed versions: French and German. There's also the 3DO version, which I'll have something to do with. I'm just doing the preliminary stuff on that.

Q: When you say the game is going to ship on a certain date, how long after it ships do you think it will be before you start getting calls?

DO: As soon as the game hits the shelves, all the people who tested the game will be moved over to the Customer Support section to field customer calls. Comparatively, though, they aren't expecting many calls. CD-ROM games are easier to install than most games, and they don't take a lot of memory. Probably the biggest thing is a lot of people will try running it through their nodes, like OS/2. People don't know how their systems are set up, or that it requires a lot more memory and probably a different setup through *Windows*. We'll probably have to help them do that.

Q: What's the most fun about your job?

DO: The people we have working in our department are really good people. Our manager and supervisors have made sure. I mean, they've hired some really good people. It's just a fun place to work.

Back row (left to right): Jeremy Mappus, James Flores, Brian Wachhaus, Kevin Kushner, Todd Wachhaus, Sean Mustakas, Reece Thornton, Anthony L. Sommers, Dominique Poumeyrol-Jumeau, Dan Orzulak, Didier Jumeau. Front row: J. Allen Brack, Bill LaCoste, David Reece, Mike Songy, Jorg Newmann, Frank Dietz. Not pictured: David Abbot, Evan Brandt, Mark Franz, Jim Hill, Andrea Köhler, Karl Strand.

GOING TO MARKET

Like a quiet current in the background, during the last few months of development another department has also been busily working on bringing *Wing Commander III* to light. Marketing at ORIGIN takes up one half of the building's first floor. Within the green and pink walls, every inch of floorspace has been divided up into cubicles. There the people who create the rest of the game —from documents to boxes to advertisements —work to get the product out on the shelves.

MARKETING
GALEN SVANAS, PRODUCT MARKETING MANAGER

Q: Did you decide to handle *Wing III* any differently from ORIGIN's other games?

GS: From the outset we knew that *Wing Commander III* would have a different marketing scheme by virtue of the fact that it would have so many elements that were already very familiar —not only to computer players, but to everyone who has gone to the movies. So it made perfect sense that we would market it like a movie, and bring people who are very comfortable with the movie experience into the computer gaming world. That meant doing things like movie poster types of advertising, appealing to general interest media that usually covers movies and entertainment while using the crossover angle of the "new media" to make it a much more palatable story to them. Press that usually does not cover computer gaming—but does cover the movies —now has a reason to cover our industry. We recognized that from the outset and tried to tailor our whole marketing strategy around that as well.
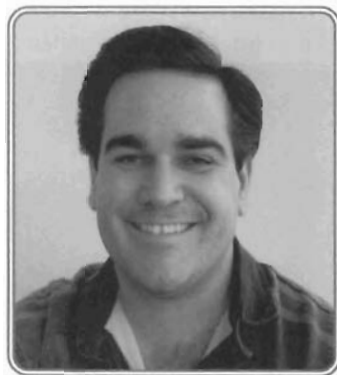
Advertising in theaters, setting up press events with the stars, getting coverage in *Newsweek*, *USA Today*, *Forbes* and *Fortune*. It's been evident by the interest from the general press that we were on the right track.

John Rhys-Davies zeroes in on another hapless Kilrathi victim during a New York media event. Chris Roberts, Frank Savage and Jennie Evans join in, piloting from the backseat.

GRAPHICS & BOXES
CRAIG MILLER, CREATIVE SERVICES MANAGER

Q: How do you set out making a game box?

CM: We first discussed the artwork for *Wing III* with the producer, Chris Roberts. He wanted a traditional "movie-ish, *Star Wars*-ish" looking format and feel to it. So we had Sam Yeates, a traditional artist here in house, create it entirely on a Macintosh using Adobe *Photoshop*. It took Sam about a month to do the artwork, and Creative Services worked directly with him in distinguishing the exact composition of the piece. We knew what would work the best for our regular set-up boxes.

Near completion, we brought over the final format of the artwork and checked how it would look with all the associated logos for *Wing III*. There are quite a few. The biggest are the main logo for *Wing III: Heart of the Tiger* and the new ORIGIN Interactive Movie logo. Keeping all that in line and looking good is a big responsibility. The only time people notice Creative Services is when the box doesn't look good.

Q: What's your goal with a box cover?

CM: It has to have a lot of punch to it, a lot of contrast to make it jump off the shelves. When we were working with Sam, the overall image was pretty dark. We had to say okay, let's kind of sharpen this area up, lighten up here, get a little more contrast going, tone down the explosion in the background, get rid of the red up top with that arrow thing happening." Plus, we have to try not to step on the artist's toes. He's really performed an exceptional piece here — and if he had done it traditionally and was going to sell it, it would bring him a lot of money. Instead he's just getting a regular paycheck from us. We knew what would work the best for our regular set-up boxes. It was fun working with Sam because he was one my teachers at Austin Community College where I took classes — and now *I* can tell *him* how to do things.

Q: Do you only do box layout?

CM: Not really. We do everything from the box itself to everything that goes inside the box. We do all the design and color separation for the box, and the layout of all the documentation and promotional items. Plus it's hard to concentrate on *Wing III* when you have several other products going on at the same time. Every producer wants his project to get full attention. We try to prioritize how much work we're going to put into each project. It's difficult, but we manage to do a good job. Especially on *Wing III*.

DOCUMENTATION & ADVERTISING

Inside every box there is more than just a CD-ROM. There are instructions on how to install the game, fiction that introduces or explains the game's characters and environments and usually a walkthrough that guides the player through the first part of the game.

Several years ago, ORIGIN had a member of the team create the documentation that went along with the game, but that did not turn out to be a practical arrangement. People on the development team often found their time disappearing — and given the choice of missing a software deadline or missing a document deadline, the document was always put on the back burner. Understandable, perhaps, but not good for the manuals. ORIGIN hired writers to work in the Marketing department, generating install guides, manuals, advertisements and hint books. That was more than enough work to keep three full-time writers very busy.

TUESDAY FRASE, PUBLICATIONS WRITER

Q: What is a Publications Writer?

TF: The label "Publications Writer" pretty much describes what we do ... a writer in Marketing produces all the written material that's published with a game. That includes the fiction manual, the main guide that tells you how to play the game, and the installation guide. We also come up with, or at least have some input into, the "tag line" text, which is the hook that we use to catch people's attention. That's always a challenge — I never realized how much thought goes into a simple 3- or 4-word phrase. And then there are the monthly sell sheet fliers that we send out to all EA territories.

Q: How is it different from other ORIGIN writers?

TF: Being a writer in Marketing isn't at all like being a writer in Product Development. The ones on the development side are in charge of writing the actual plot line and conversations for the game. They're directly responsible for the story behind the game. The way I describe marketing writing is this: If it's in a flier, on the box, or *in* the box, we wrote it. If not, someone in PD wrote it.

Q: How do you prepare for working on a project? Was *Wing III* any different?

TF: The first thing I do when I find out that a certain project's in my lap is to research the storyline. Sometimes, this isn't anything more than visiting the producer and talking about the project. Other times, I just talk my way into an alpha or beta version of the game, then start it up on my system. Once you've played it awhile, the writing flows. You've got a handle on the tone of the game, the characters, and the gameplay, and that makes the docs a lot easier to create. Some docs are loose and casual; others are strictly technical in nature. Either way, you can't really describe the game in layman's terms until you understand what its purpose is, and what type of audience you're targeting.

Once I've learned a little bit about the fiction and purpose of the game, I start to play it. This is undoubtedly the most exciting time for me —actually it's second only to seeing the final product on the shelves. Being a writer, I always feel privileged to be able to see the game before anyone outside the company gets to.

The rest of research is different for each game. For our WWII sim, I had to read a ton of history books for the historical parts of the manual. And I *hated* history! But after visiting a museum and collecting odd articles and lots of pictures, I can truly say I enjoyed learning about the war. It was also very interesting in that I found out my grandfather (Wayne Glenn) was a *Dauntless* tailgunner aboard the carrier *Saratoga*. Now that was rewarding, learning what went on in the world when he was my age.

Sometimes I don't know enough to write intelligently about a subject, and I have to read something like *Neuromancer* or watch movies like the *Lawnmower Man*. That was the case for *System Shock*, so I had to introduce myself to world of cyberpunk.

Other games don't require much research at all. Take *Wing Commander Armada*. We decided to go for the "collage" effect and present the Terran-Kilrathi conflict from both perspectives. That was a great opportunity to be creative, and I wrote dozens of short pieces. Some were letters home, others were articles, mission briefings or log entries. It worked out really well.

Hintbook research is another matter. They're more detail-intensive, and I've had to learn to dig through MIF files, which are data files that contain a lot of code. It was pretty Greek at first, but I'm learning how to extract basic information out of the files. What kind of info? Plane stats, wingmen characteristics, what type of monsters you'll find, how they attack, and so on and so on.

And then by the time I've done all the writing, the game ships and I'm tired of playing it.

Q: With the advent of electronic-based text, how do you think your role will change as a Publications Writer?

TF: It's just like anything else —you have to adapt to survive in the market. I think there will always be print media to some extent. Who wants to quit in the middle of a game so that they can pull up an electronic copy of the playguide? At the same time, I think my role will evolve to incorporate more electronic copy. We'll have to start writing with less flourish and more for the computer screen —space will definitely come into play, because you can only fit so many words in a single frame.

Probably our first entry into electronic text will have to do with help files, like the ones you find in *Windows*-based programs. I can see how that would be useful to players. Later, I wouldn't be surprised if we start producing ref-type screens that give "quick information." And I guess ultimately, we'll ship everything electronically, even the playguide. I'm sure that our work will then become more code-oriented. And with any luck, writers will remain in the loop.

Q: What was the easiest part about working on *Wing III*? The hardest?

TF: The easiest thing? *Wing III* stayed true to the script since all the film shoots took place well before the game hit Beta. They couldn't change much in the game, other than when conversations became available, and what loadouts the ships had. All the game elements remained stable for the most part, which was a welcome change. Usually, I expect 180-degree turns on things I've already documented, but that wasn't the case. The keystrokes stayed the same, and so did the story. But I have to admit, I *still* don't know the correct missile loadouts for the fighters!

The *worst* part about being on this game was the time frame. I had just come off two simultaneous projects that shipped late, and that crunched my production time for the game docs by two-thirds or so. Luckily though, I had help from Melissa Mead and John McLean. I guess the only other problem I had was trying to pin people down for information and signoffs — if someone on the team wasn't too busy to talk to me, they were at home grabbing what few hours of sleep they could! I ended up working some odd hours and some long days.

Q: Just how closely do you interact with the actual development team? Are you a team member, or do you operate solo?

TF: Even though I'm a Publications Writer in the Marketing department, I try to cultivate good relationships with the team I'm working with. If I can convince them that I'm very much interested in learning the guts of the game, they're usually willing to help me. And I *am* genuinely interested. I've made a lot of friends at ORIGIN, and I sometimes visit other floors even when I don't need anything from anybody up there. When I do come to the team for work-related items, it's usually to get questions answered. You get really good at running stairs and catching people just as they're trying to duck out of sight!

Occasionally I can turn into a nag, especially when we're trying to get docs signed off by the team members and by QA. All in all, I think we have an interesting symbiotic relationship. I can't write without them, and they can't ship the game without docs.

Q: What's your favorite aspect of your job as a Publications Writer?

TF: Well, that's a tough one. I have lots of favorite aspects. One is that I get to switch hats, so to speak, every couple of months. I have a tendency to get bored easily with routine tasks, so it's a nice change of pace to go from a WWII flight sim to a cyberpunk point-of-view game to an interactive movie like *Wing III*. And we're usually working on more than one project at once. In the last four months, I've worked on three games and two hintbooks. That's not even counting all the ad text, sell sheets and catalogue text for upcoming games.

And the best thing about being a PW is that it's not just writing. I've had the chance to do some graphic work, and I'm learning the ins and outs of DOS, hardware, and simple code-deciphering. Hey, I can even create a boot disk without reading the install guide now!

DISTRIBUTION
MARK CHANDLER, DIRECTOR OF OPERATIONS

Q: When does your department get involved in a project?

MC: Basically, when it gets to the first Product Status Meeting—PSM— is when we start coordinating when the product is going to ship, and how many are going to go out within a certain timeframe. World-wide ship dates make it tricky. For instance, we have to get Australia's shipment done a week earlier than our domestic ship just so we can get it through customs. There's also the fact that we ship to different hemispheres. Because they're a day ahead of us, you can actually run into the problem of having two Sundays when you ship world-wide.
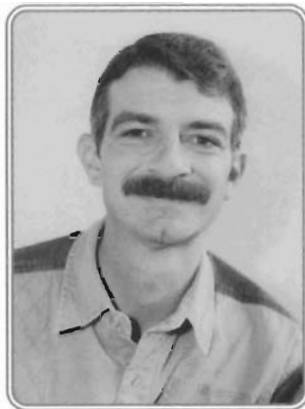
Scheduling turnaround times with our suppliers is the first thing we take care of. With the current paper shortage, we have a lot of problems with keeping our prices where we want them. Three paper mills shut down about a year ago, and paper became like oil was in the '70's — they could raise the prices any way they wanted. Basically, it became more lucrative for companies to sell their paper to places other than the game industry. Something as simple as the availability of the paper could really affect our turnaround time.

Then I coordinate with the document writers, the folks in Creative Services who lay it all out, the people in Sales to make sure we have the right quantities, and with Electronic Arts in Europe and San Mateo. By the times the CD is done, we've always got nearly everything else done. The multi-page inlays that go in the front of the CD jewel case, the insert that goes in the back. Everything except the Install Guide, which is the last document to be done.

Q: How long does it take from getting the final, signed-off version of the game from QA, to having a game on the shelves?

MC: In the summer we can go from absolute zero to having a 35 to 40,000 games on the shelves in less than a week. For a huge game like *Wing Commander III*, though, we'd like to have about three weeks. The season that a game comes out really makes a difference — Christmas is always busier. Everyone plans for their number one games to come out about that time.

We'd never be able to do it if my own group weren't so responsible — without them none of this would happen. They take care of all the details, they really do. While I'm looking at the overall picture, they're down in the trenches getting it done. They make it all happen.

CD TROUBLESHOOTING

If you are experiencing problems with *Wing Commander III "Behind the Screens" CD*, refer to these questions and answers before calling ORIGIN Product Support for further assistance.

Q: The opening screen says to press PLAY to view the WC3 Demo, but when I press the button, nothing happens. None of the black windows seem to work properly. What is wrong?

A: If you are experiencing problems with audio or viewing .AVI files, be sure that you are *not* running any disk cache program such as SMARTDRIVE. *"Behind the Screens"* is not compatible with disk caching programs and you should disable your disk cache prior to viewing the program.

To disable your disk cache, look in your AUTOEXEC.BAT file (in MS-DOS) for a line that reads similar to:

    LH C:\DOS\SMARTDRV.EXE 2048 /X

Edit your AUTOEXEC.BAT using the MS-DOS Editor and type REM at the begining of the line. For example, you might end up with:

    REM LH C:\DOS\SMARTDRV.EXE 2048 /X

For more information about SMARTDRIVE and your AUTOEXEC.BAT file, refer to your MS-DOS manual.

Q: The colors on the screen do not look right when I run BEHIND.EXE, and everything is hard to see. At the same time, my hard drive light keeps accessing constantly. What's wrong with the CD-ROM?

A: Your *Windows* is not configured properly for 256 colors. You will need to load the *Windows 3.1* or higher-compatible driver for your video card. Contact your video card manufacturer for the proper SVGA-256 *Windows* video driver.

Q: My colors seem fine, but all I see is a black window and nothing happens when I press PLAY. At the same time, my hard drive light keeps accessing. What's wrong with my CD?

A. Your *Windows* configuration may not be set up to run the AVI files necessary to view the movies on the *"Behind the Screens"* CD. You will need to install Microsoft *Video for Windows*. A version of this installation can be found on your CD. See "To Install Microsoft *Video for Windows 1.0,"* page 2.

Q: I'm not getting any music, speech or digital FX. What's wrong?

A: Be sure that you have your speakers turned on and connected properly. Also, make sure that you have installed the *Windows 3.1* or higher compatible sound drivers specific to your sound card. You will not need to configure *Wing Commander III: "Behind the Screens"* CD for your sound system if these drivers have been installed properly. Also, check to see if you are not suffering from another problem as described in another troubleshooting question. Try closing all applications, including print managers, screen savers and modem terminals, to ensure the clearest possible environment for the *"Behind the Screens"* CD to operate.

Q: Some of the movies play slowly, or I keep receiving 'Out of Memory' messages. What should I do?

A: Try closing all applications, including print managers, screen savers and modem terminals, to ensure the clearest possible environment for the *"Behind the Screens"* CD to operate.

Q: Wing Commander III, the game, differs slightly from the Master Script listed in the "Behind the Screens" CD. What's wrong? Am I missing something from the main game?

A: Unfortunately, there may be slight differences between the script and the final game text, made in the best interest of the end product. We hope you will enjoy reading this design documentation, as it provides insight to the process of interactive movie development.

Q: I've reviewed all of the instructions, system requirements and trouble-shooting suggestions, and my CD is still not working. What should I do?

A: If, after reviewing this install guide and reviewing the TROUBLE.WRI file on this CD, you are still having a problem with *Wing Commander III: Behind the Screens CD*, please read this section and call us. We have a staff of product support technicians ready to help you with any problems you may encounter with the game or the *"Behind The Screens"* CD.

Today's PCs run with millions of different hardware and software combinations. Because of this, you may also have to refer to your computer dealer, hardware manufacturer or system software publisher in order to properly configure their product to run with our game. When you do call us, if at all possible, be near your computer. If it is not possible to be near your computer, be sure to have the following information:

• The contents of your CONFIG.SYS and AUTOEXEC.BAT files.
• A listing of your machine's type and hardware contents.
• The DOS version number and publisher that you are currently running.
• The *Windows* version number that you are currently running.
• The type and version of mouse driver you use.
• The contents of a CHKDSK and MEM /C statement.
• The error message and problem description when it occurred (if any).
• The brand of sound card and its IRQ, I/O Address and DMA Channel.
• The brand of video card you are using.

Contact ORIGIN Product Support at (512) 335-0440, Monday through Friday, between 9 a.m. and noon, or 1 p.m. and 5 p.m., central time (1 p.m. and 4 p.m. on Friday). The ORIGIN BBS can be reached at (512) 331-4446 at 8 bit, no parity, and 1 stop bit. ORIGIN Product Support Fax is (512) 331-8559.

CD INSTALL

PLEASE: Read the troubleshooting section (pp. 254-255) first for possible problems with using non-native SVGA-256 drivers. We also do not recommend installing a 256-color driver if you already have one installed. Try viewing the application before you change anything in your system.

IF YOU ARE CURRENTLY SET UP
FOR BOTH 256-COLOR AND VIDEO FOR WINDOWS:

You are ready to view *Wing Commander III - "Behind the Screens"*

IN WINDOWS

1. Go to the File Manager.

2. Click on the letter of your CD-ROM drive. (Usually D:)

3. Double-click on BEHIND.EXE.

IF YOU ARE NOT SET UP FOR 256-COLOR DISPLAY:

We *highly* recommend that you run with native SVGA-256 drivers for your video card.
If you do not have your original video card SVGA-256 drivers, you can contact the manufacturer of your video card and get the SVGA drivers.

IF YOU ARE NOT SET UP
FOR MICROSOFT VIDEO FOR WINDOWS:

You can extract the Run-Time version of Microsoft *Video for Windows* located on the CD. For more information about this program, use the Write application from the Accessories Group Windows to view VFW.WRI located in the MSCOLOR directory of the *"Behind the Screens"* CD. We also do not recommend installing Microsoft *Video for Windows* if you are already configured to view these movies. Try viewing the application *before* following these instructions to ensure that you *need* to install this software.

TO INSTALL MICROSOFT VIDEO FOR WINDOWS 1.0:
IN WINDOWS

1. Go to the File Manager.

2. Click on the letter of your CD-ROM drive. (Usually D:)

3. Double-click on the directory MSCOLOR.

4. Double-click on SETUP.EXE.

5. Follow the prompts on the screen.

Video for Windows is now installed in your system. This will allow you to play the AVI files necessary to view the movies found on your CD.

MAYBE YOU'VE VANQUISHED YOUR FOES IN HEAD-SPLITTING COMBAT MISSIONS THAT WERE HOTTER THAN A SOLAR FLARE.

MAYBE YOU'VE FLAMED MORE CATS THAN ANY OTHER PILOT IN THE CONFEDERATION.

Then again, maybe you're popping the pod on that same mission, over and over ...

Or perhaps you're wondering just what to say to that special person onboard the *Victory*. ORIGIN's *Official Guide to Wing Commander III* holds all the answers, from successfully completing each mission to choosing conversational responses that affect the plot. This information storehouse gives you the low-down on everything in the game – we'll walk you through Hollywood, escort you onto the *Victory*, and even cheer you on during the final attack on Kilrah.

- View detailed information on enemy AI and skill levels, tactical strategies for fighting each type of ship, and favorite enemy moves.
- Plan individual missions beforehand with our ship and ordnance recommendations, detailed maps, mission objectives and point-by-point enemy ship locations.
- Expand your piloting skills with useful combat tactics from ORIGIN's playtesting squadron.
- Learn how conversations affect characters in order to choose the best response for each morale situation in the game.
- Step into the minds of the designers and artists, and experience the film-making wizardry behind the game with a 100-page section on the making of *Wing Commander III*.

BEHIND THE SCREENS Interactive CD

Once your adrenaline wears off, take a break with the *Wing Commander III* interactive CD. This detailed multimedia tour plunges you into the making of the game, from its conception to its final form.

- View the **Making of *Wing Commander III* Video**, which walks you through the process of creating an interactive movie experience.
- Thumb through the **Production Scrapbook** for a glimpse of a typical day on and off the set.
- **Meet the Cast** and **Meet Product Development** – you'll discover their contributions to the game and their thoughts on *Wing Commander III*, in video clips.
- Display the original **Concept Art** and the actual **Virtual Sets** that resulted in this interactive experience.
- Have a laugh or two with bloopers and outtakes **From the Cutting Room Floor**.
- Read the **Master Script** for a complete copy of all scenes and lines written for the film shoot.
- Check out the **ORIGIN Catalog** for descriptions and screen shots from recent and upcoming products.

| US | $24.95 |
| CANADA | $33.95 |