Star Wars Rogue Squadron

STAR·WARS

ROGUE squadron

**Strap Into
LucasArts' Final
Pre-Prequel
Excursion To The
Star Wars Galaxy
(Or Is It?)**

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By Crispin Boyer and John Davison

Tatooine is a helluva haul from Earth, or so you'd figure from the "...galaxy far, far away..." portion of the *Star Wars* trilogy preamble. But then you don't live in San Rafael, Calif.; you don't work at LucasArts; and you're not Kevin Schmitt, lead level designer for Star Wars: Rogue Squadron, due in November for the Nintendo 64. Schmitt and the rest of the game's level builders have spent more time on Luke Skywalker's dune-addled homeworld than a geriatric jawa. Tatooine, after all, is the most recognizable planetoid in this 3D shooter, forcing Schmitt and his team to continually rework the undulating landscape and cram it with landmarks.

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"There's escape pods in there, and Sarlacc pits, Jabba's Palace, a skeleton of a Krayt dragon," Schmitt says, running down a location roster that would satisfy any Star Wars-savvy sightseer. "We have a sandcrawler in there, Luke's homestead, a landspeeder. We're still trying to see if frame-rate and memory allows rontos and banthas and stuff like that."
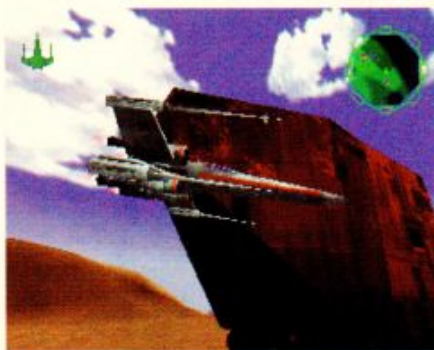
"this is a much bigger beast than shadows. you can fly pretty much everywhere."
—Mark Haigh-Hutchinson • Project Leader

Imperial fighters aren't the only threat. Expect heavy opposition from the ground, too.

And Tatooine is only one of 15 planets that serve as Rogue Squadron's levels. Like intergalactic tourists at lightspeed, we surveyed every one of these far-flung locales during a recent visit to LucasArts' offices, just north of San Francisco. Easily the most fantastic development digs through which EGM has trodden in some time, LucasArts' is, predictably enough, crammed to the rafters with every conceivable Star Wars collectible. Armies of action figures crowd desktop workstations, while toy X-Wings, A-Wings and other lethal-looking plastic craft hang from

above. Then there's the Darth Vader cardboard standee wearing a stack of sombreros, but we won't go into that now (and, no, the staff here doesn't get all this stuff for free just because they work for LucasArts). It is here also that—under a security lockdown reminiscent of the Death Star detention center—development is under way on the games based on next year's Episode One prequel film. Most fitting, since a few miles north sits Skywalker Ranch, where George Lucas wrote the prequel's screenplay, while a few miles south lies Industrial Light and Magic, the famous

star Tours

Rogue Squadron's 16 levels span 15 planets in the Star Wars Galaxy. You've seen one of them—Tatooine—in the flicks. The developers yanked the rest from the novels, comics and source books. Here's an intergalactic tour of each far-flung planetoid.

of Rebel Assault II (not to mention Ballblazer Champions and the Super NES game Indiana Jones' Greatest Adventures, as well as the ultra-intense Turrican platformers in their pre-LucasArts days). For Rogue Squadron, Factor 5 is finding all kinds of fun things to yank from the N64—especially in the digitized speech and music departments.

But we'll get to all that later. First, the basics. Rogue Squadron is a flight-combat shooter that's heavy on action, light on sim, and expected to fit on a 12-Megabyte cart (although that size may increase). The game has you donning the orange flightsuit of Luke Skywalker, six months after he destroyed the original Death Star in *Star Wars: A New Hope*. Now young Skywalker and his wingmates—including unsung trilogy hero Wedge Antilles—engage in skirmish after low-altitude skirmish in a variety of Rebel Alliance craft above the game's 15 planets. Each planet serves as the backdrop for a level, with Kessel hosting two stages, giving the game a total of 16 missions (not to mention several secret bonus levels).

special-effects factory that's churning out the film's CG hocus-pocus. Let's face it—Star Wars is in the air here. (Heck, it's even in the water: The lake at Skywalker Ranch is called Ewok Lake.) Could there be a better place in the galaxy to create the second Star Wars game for the Nintendo 64?

Maybe. Just down the road a bit, in a multistoried wooden building that seems more treehouse than workspace, we find the offices of Factor 5, the German development team with whom LucasArts has worked closely for the past five years. Rogue Squadron is Factor 5's baby, too. While LucasArts handles the level design and most of the art duties for the game, Factor 5 is responsible for much of Rogue Squadron's programming—its 3D engine, AI, sound and music system, development tools and front end. And although this is Factor 5's first N64 game, it isn't their first jaunt to the universe George Lucas built. Previously, they coded the PlayStation port

Of all the game's planets (see sidebar), only Tatooine appears in the *Star Wars* flicks. For the rest, the developers had to do a little digging. "These are all *Star Wars* locations," Schmitt says. "We got them from the Adventure Journals, from some of the novels, the comic books—all over the place. We just scavenged them all." Picking the right planets was the easy part, though; deciding what they looked like was another matter. "We just looked for as much reference material as we could," Schmitt continues, "but a lot of the books and things weren't very descriptive, so we just gave our artists free reign. The planet Corellia, for example, where Han Solo's from, it's been described in limited detail, so we kind of pictured it as the California coast with a spaceport." And this level-building process won't end until Lucasfilm licensing greenlights Rogue Squadron's look and story, since nothing in the game is allowed to clash

1. Tatooine

Desert terrain inhabited by humans, Jawas and Sand People. Made famous as homeworld of Luke Skywalker, adopted home of Obi-Wan Kenobi and Jabba the Hutt.

2. Barkhesh

Planet in neutral space that is home to a small group of Rebel sympathisers. This group has access to a large cache of weapons and technology that they are prepared to share.

3. Chorax

A system known for smuggling and piracy activities Chorax, has been a key system for Rogue Squadron throughout its history. Several missions in the X-Wing collections occur here.
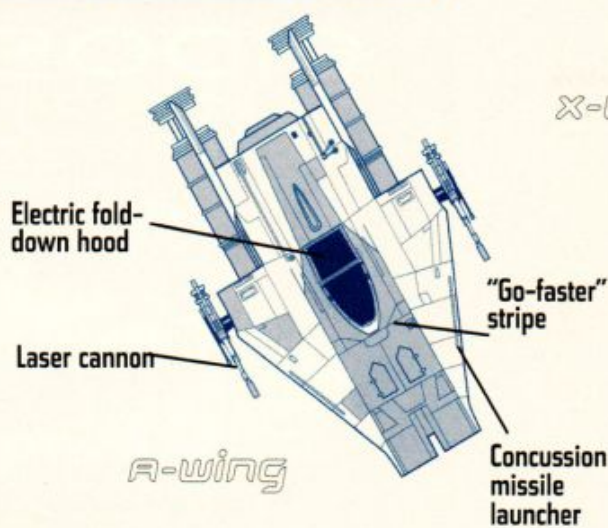
What name does Wedge Antilles apply to Rogue Squadron whenever the group undertakes covert missions for the New Republic?

A) Shadow Squadron
B) Black Squadron
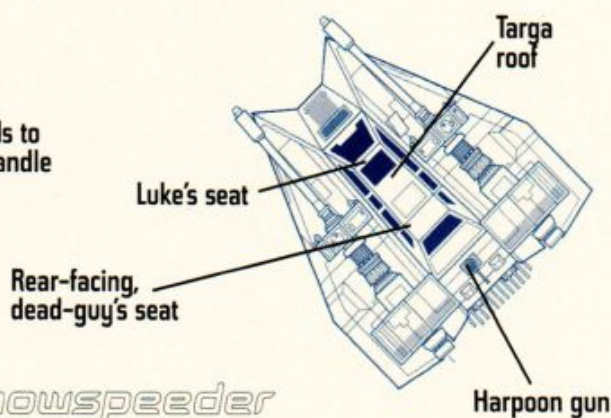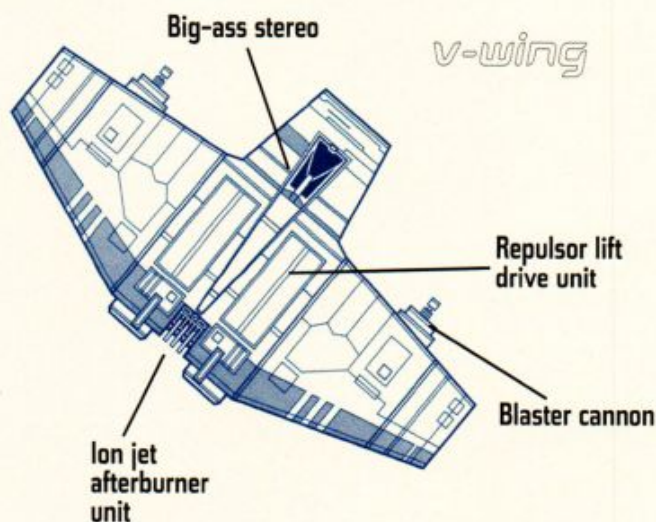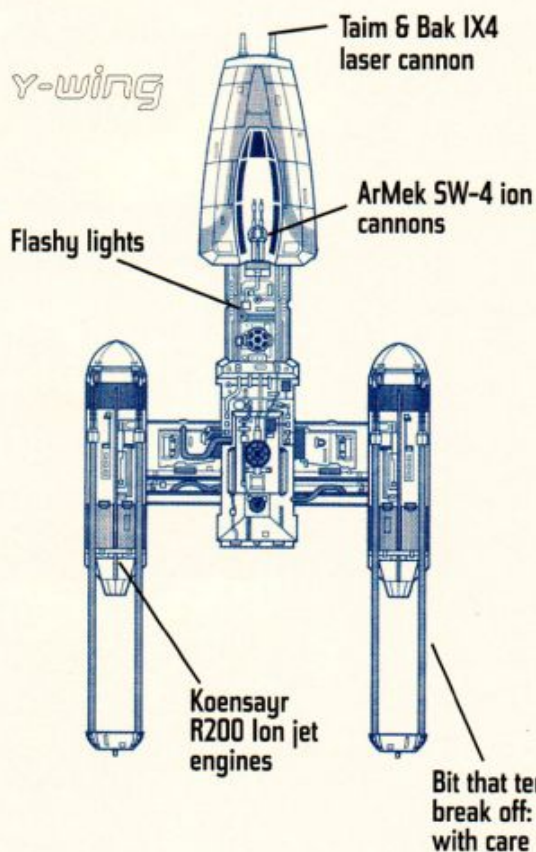C) Ghost Squadron
D) Wraith Squadron

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ship shapes

There are five ships that you can use right from the beginning of the game: three starfighters and two speeders. You'll probably recognize all of them except the V-Wing, which was introduced in the *Dark Empire* comic book. Other ships will open up when you complete certain sections of the game.

x-wing

Electric fold-down hood

"Go-faster" stripe

Laser cannon

Concussion missile launcher

Deflector shield generator

R2 unit

Taim & Bak KX9 laser cannon

Keyless Entry

A-wing

Y-wing

Taim & Bak IX4 laser cannon

ArMek SW-4 ion cannons

Flashy lights

Koensayr R200 Ion jet engines

Bit that tends to break off: handle with care

v-wing

Big-ass stereo

Repulsor lift drive unit

Ion jet afterburner unit

Blaster cannon

Targa roof

Luke's seat

Rear-facing, dead-guy's seat

Harpoon gun

snowspeeder

D) Wraith Squadron

The term first appears in *X-Wing: Wraith Squadron*, by Aaron Allston. In the novel, Wedge gathers together a new group of pilots who have been rejected from other units, to perform covert missions.

with the continually growing Star Wars continuum that the films, novels, comics, sourcebooks and games have established thus far.

Rogue Squadron's levels are divided into four chapters, and you can only reach Chapter Four—comprised solely of the final stage on Mon Calamari—if you do something special, which you'll just have to figure out for yourself. Each mission kicks off with an in-game cutscene (you'll find no Shadows of the Empire-style 2D cinemas here), featuring sweeping shots of your squadron soaring into the mission area and digitized radio-chatter commentary. Missions in Rogue Squadron come in several flavors. You'll pull escort duty, embark on search-and-destroy sorties, dart deep into Imperial territory on rescue missions and engage in lots and lots of dogfights.

But the game doesn't throw too much at you too early. "A lot of the missions in the first chapter are simple, one-objective kind of things," Schmitt says. "The first level is just an attack on Mos Eisley. Rendezvous at Barkhesh [level two] is an escort kind of mission. Rout at Chorax [the third level] is a search-and-rescue type. But later missions will have you doing many more things. They might incorporate an escort objective with a search-and-rescue one, or escort with attack." In-game cutscenes and radio messages guide you through the changing objectives of each level. The developers expect that most missions will take at least 15 minutes to complete, and that's only after you've played through the level several
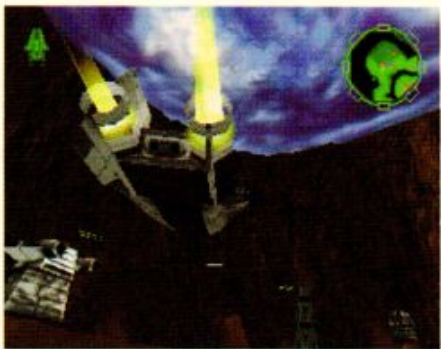
times and know exactly what you're doing.

Many of Rogue Squadron's missions mix subplots and characters from the expanding Star Wars universe. Take the second level—called Rout at Chorax—for instance. "This was actually based on a *Rogue Squadron* comic book mission," Schmitt begins. "A ship called the Nona with some Rebel sympathizers, supplies and officers has crashed on Chorax. Both the Imperials and Rebels know it has crashed and they're both going after it, so your mission is to go find them before the Imperials do. The level's designed so there's one of three places where the crashed ship may be."

Minor movie characters pop up, too, including General Madine, the Ted Koppel-coifed Rebel leader who in *Return of the Jedi* organizes the ground assault on Endor. Turns out he originally worked for the Empire, and one mission has you flying to a rendezvous with Madine, who seeks to defect to the Rebel Alliance. "So, you go in for a supposedly peaceful mission, a meeting with Madine," Schmitt continues, "but then the Imperials begin to raid the planet's capital city. While you're protecting the city, Madine calls for help from his nearby city, which is also under attack. So you have to balance your defense between the capital city and Madine's building."

Escort missions, for the most part, have you defending ground vehicles, such as trucks and trains, but some send you on coordinated attacks with other Alliance fighters. So goes the mission over Gerard 5, the final level in the game's first chapter. "Gerard 5 is a planet that tried to rebel, but the Imperial presence there was too strong," Schmitt explains. "So they get word that you're the guy who blew up the Death Star and call for assistance so they can attempt to rebel again. Your squadron shows up, and the Imperials decide to get the heck out of there. They start flying off in their yaughts, taking all the money with them. The Alliance sends in Y-Wings to disable the escaping yaughts, and you have to both defend yourself and the Y-Wings while they go about their job."

At your disposal in Rogue Squadron are five Alliance fighters.

4. corellia
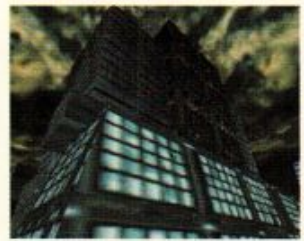
Among the first planets to join the Old Republic and noted as homeworld to Han Solo. Garrisoned by the Empire after the Battle of Endor.

5. Gerard v

Site of failed military uprising against the Empire prior to the Battle of Yavin. Brutally suppressed by orbital bombings from Star Destroyers Adjudicator and Relentless.
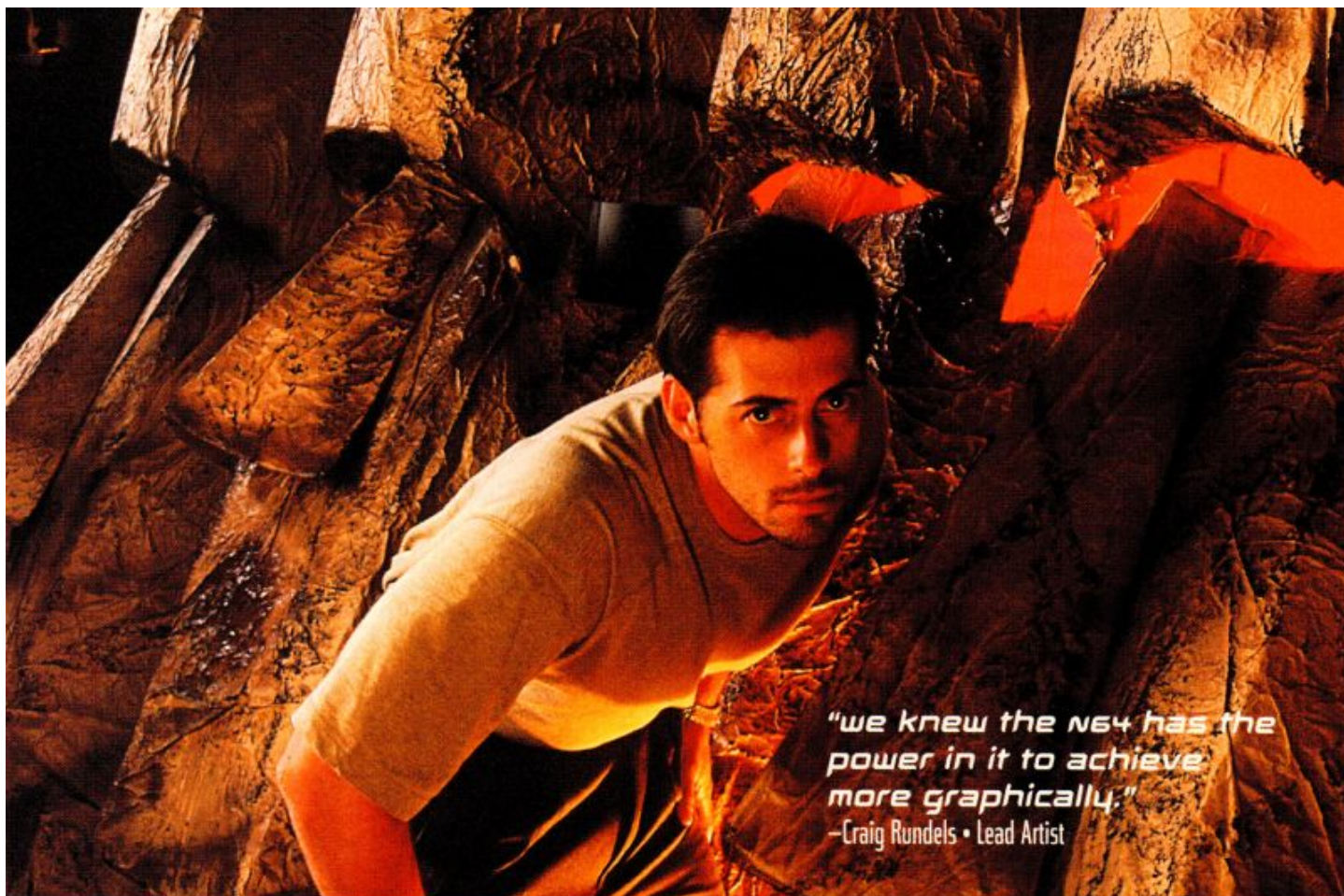
6. Loronar

Home to the Imperial shipyards and the Loronar Corporation. Most of the Empire's largest capital ships and weapons platforms are constructed on Loronar along with synth droids.
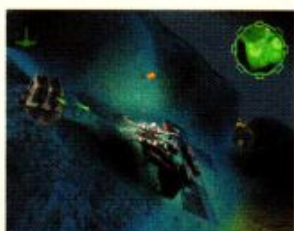
Which of the following starfighters does not have a deflector shield generator?
A) A-Wing
B) TIE Advanced X1
C) TIE Bomber
D) Y-Wing

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"we knew the N64 has the power in it to achieve more graphically."
—Craig Rundels • Lead Artist

The game engine makes full use of all the tricks in the N64's arsenal. Nighttime missions really show off the dynamic lighting.

You've seen four of them—the X-Wing, Y-Wing, A-Wing and snowspeeder—in the films. The final fighter, the V-Wing airspeeder, is from the *Dark Empire* comic series. (Oh, and there's a few secret craft, as well.) Each ship has a virtual cockpit, in which you can pan your view with the Camera buttons, or you can choose a third-person, behind-the-ship perspective. The type of ship you fly and its weapons configuration are predesignated for each mission. But as you progress through the game and gain access to new fighters, you can refly previous missions with your newly attained craft. Certain missions will also end with you acquiring new technology, such as more powerful laser cannons. The enhanced weaponry will be present on all craft in the game from that point forward.

Rogue Squadron pits you and your squadmates against just about every hunk of deadly junk in the Emperor's toy box. You'll face AT-ATs, scout walkers, TIE fighters and bombers, shuttles, probe droids, turrets and other familiar troublemakers. You'll also take on machinery ripped right from the novels, West End RPG source books and vehicle guides. Look for blastboat gunships, All-terrain Personnel Transports (AT-PTs), special TIE-D fighters, tank droids and even structures and buildings from the *Star Wars Special Edition*, such as the tibanna gas platforms on a Cloud City-style stage. By design, Imperial AI in Rogue

Squadron has been crafted well shy of genius, owing to the game's action instead of die-hard-sim spin. Like any good twitch shooter, you'll face swarms of enemy vehicles at any one time, and life would be frustratingly difficult if the opposing AI were too bright—not to mention that escort duty would be a nightmare, since enemies would
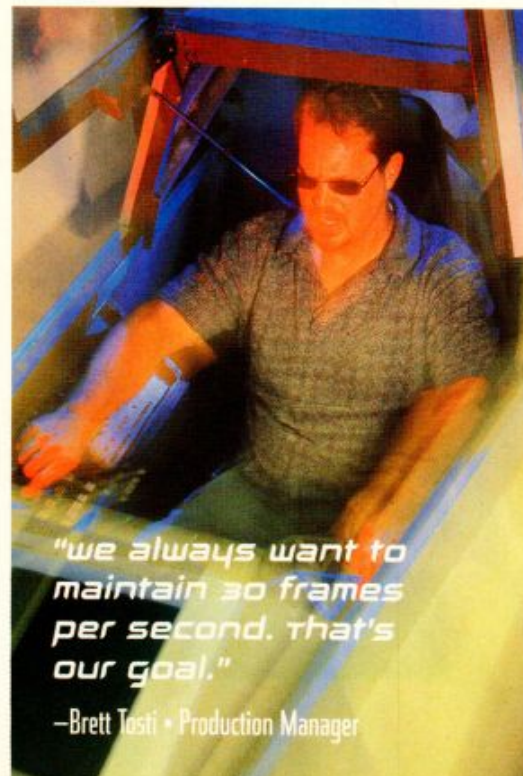
"we always want to maintain 30 frames per second. that's our goal."
—Brett Tosti • Production Manager

C) TIE Bomber

Although the TIE Bomber does have a full life-support system, it is not protected by a deflector shield generator. However, the TIE Advanced, the prototype starfighter used by Darth Vader, does incorporate the device.

always draw you away from whatever it was you're supposed to protect. "We didn't want to make [the enemies] too smart," says Holger Schmidt, lead programmer for Rogue Squadron and the director of development at Factor 5. "We're making them a little bit more predictable, although not quite exactly cannon fodder." He added that the AI was actually developed with an eye toward the Trilogy flicks. "A lot of times it's very cinematic," Schmidt continues, "like in the movies, when the X-Wings are getting in behind the enemies and shooting them down, or they dodge to the left or to the right and head down a different canyon."

OK, now that you've gazed at the screenshots and read about the Imperial opposition, something about Rogue Squadron

no doubt feels a little familiar—at least if you played Shadows of the Empire. LucasArts, it seems, took much of the feedback on its first N64 game to heart. It was the gripes aimed at certain levels of Shadows and the praise for others that very much shaped Rogue Squadron's design. "I love Shadows for what it was," explains Mark Haigh-Hutchinson, the project leader for Rogue Squadron, "but it suffered from a little bit of lack of focus, because we tried to do a general kind of game to please lots of different kinds of people, and we hit every kind of game there is. It worked to a large degree, at the expense of not being able to fine-tune certain levels as much as we would have liked. Now, with this game, we're focusing on a particular style of game which is akin to the first level of Shadows."

You remember that stage, right? It was the extraordinary snowspeeder level that had you—as Dash Rendar—knocking down AT-ATs in the most faithful re-creation of the Battle of Hoth ever packed into a video game (and note that this same battle formed a significant gameplay chunk of two previous console games). Well, it turns out that Haigh-Hutchinson had crafted Shadows' Hoth Battle concept, and he also wrote the initial design document for Rogue Squadron. The graphical and gameplay similarities between the old and new games are obvious. They even share kindred control schemes, with the Shoulder and Trigger buttons in Rogue Squadron controlling speed boost and brakes, while the A and B buttons work your primary lasers and secondary weapons, such as Ion cannons, proton torpedoes, etc.

But you'd be surprised at how much some development focus can add to a game. "This is a much bigger beast than Shadows," Haigh-Hutchinson explains. "It's much more of a free-roaming environment. You can fly pretty much everywhere. In Shadows, you were turned back in the direction of the battle if you flew too far. Here, you can go on for some significant distance." In fact, Haigh-Hutchinson says, the average level in Rogue Squadron is 20 times larger than

7. Balmorra

Located on the fringe of the Galactic Core, this is another location for Imperial weapons manufacturing. Primary product is the AT-ST walker.

8. Kile II

Temporary base of Rogue Squadron during *Shadows of the Empire* (novel). Used as staging post for Rogue's attempt to capture Boba Fett and rescue Han Solo.

9. Kessel

Only source of telepathy enhancing glitterstim spice. Former site of brutal Imperial prison and spice mining operation. Adjacent to cluster of black holes referred to as the Maw that's known for making navigation difficult.

Who was Red Leader at the Battle of Endor?
A) Arvel Crynyd
B) Lando Calrissian
C) Wedge Antilles
D) Admiral Ackbar

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The more astute among you will no doubt be aware that the Rogue Squadron is an integral part of Star Wars folklore, filling in a number of gaps between the three movies. Formed after the Battle Of Yavin by the two surviving X-Wing pilots (Luke Skywalker and Wedge Antilles), its primary function is to operate as a squadron without a set mission profile. This allows the Rogues to take on any important tasks that come along and fill in when normal combat squadrons aren't up to the task. It is General Carlist Rieekan, the commander of the Hoth base in *The Empire Strikes Back*, who assigns missions to the squadron in the LucasArts game.

As squadron leader, Luke Skywalker gathered the 12 finest pilots and fighters before leaving to embark on his Jedi studies on Dagobah in *The Empire Strikes Back*. Once he left, Wedge took over squadron command, and it is at this point where the majority of the X-Wing novels and comics take place. Note that the game is set before *The Empire Strikes Back*, when Luke was still leader.

The Squadron played a significant role in the formation of the new Alliance after the defeat of the Empire at the Battle of Endor and was also instrumental in the liberation of the Imperial Center on Coruscant.

Notable Rogue Squadron pilots include Wedge (Rogue Three) and Luke (Rogue Leader), as well as Zev Senesca, the pilot who discovered and subsequently rescued Han Solo and Luke Skywalker after they were forced to spend the night on the surface of Hoth. Senesca (designated Rogue Two) was killed at the Battle of Hoth. Also, Derek "Hobbie" Klivian, a young pilot lured from the Imperial Navy at the same time as Luke's life-long friend Biggs Darklighter, joined Rogue Squadron at the Battle of Hoth and was designated the call sign Rogue Four. He also fought at the battles of Endor and Bakura.

If you want to really check up on the background to the game, Rogue Squadron has been featured in:

- *Star Wars: The Empire Strikes Back*
- *The Last Command* (volume three of the *Thrawn Trilogy*, Bantam Spectra books, Timothy Zahn)
- *Rogue Squadron* (volume one of the *X-Wing* series, Bantam books, Michael Stackpole)
- *Wedge's Gamble* (volume one of the *X-Wing* series, Bantam books, Michael Stackpole)
- *The Kytos Trap* (volume three of the *X-Wing* series, Bantam books, Michael Stackpole)
- *The Bacta War* (volume four of the *X-Wing* series, Bantam books, Michael Stackpole)
- *Heir to the Empire Sourcebook* (West End Games, Bill Slavicsek)
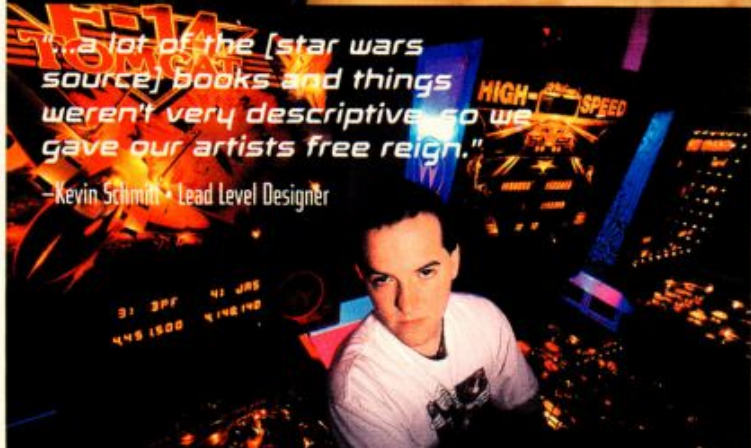
C) Wedge Antilles

In Luke's absence, Wedge became the leader of Rogue Squadron and at the Battle of Endor, served as Red Leader in command of the Alliance's X-Wing forces.

"...a lot of the [star wars source] books and things weren't very descriptive, so we gave our artists free reign."

—Kevin Schmitt • Lead Level Designer

Render by Buddy Hannon, Suzanne House and Dan Colon

Each of the fighters has its own 3D-modeled "virtual cockpit" which allows you to look around. It's certainly the finest example yet on a console game.

According to the Special Edition release of *Star Wars: A New Hope*, how many X-Wings survive the Battle of Yavin?
A) Four
B) Three
C) Two

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The idea behind Rogue Squadron isn't exactly new. Below are shots from Super Star Wars and Super Empire Strikes Back on the SNES, and of course the first level from Shadows of the Empire. Look familiar to anyone?

Q: Which of the following was your favorite level in Shadows of the Empire?

Survey courtesy of Videogames.com

meteor shower	176
train	111
skyhook battle	401
canyon	169
snowspeeder	946
speeder bike	350

C) Two

The film reveals the Millennium Falcon, Wedge's X-Wing, Luke's X-Wing and a Y-Wing returning to Yavin 4 after the destruction of the Death Star.

Shadows' snowspeeder stage. You still get bounced back in the direction of battle when you hit a level's boundaries, but you can fly much farther before smacking into these invisible walls, and the location of mission objectives keeps you well away from the worlds' endzones, anyway.
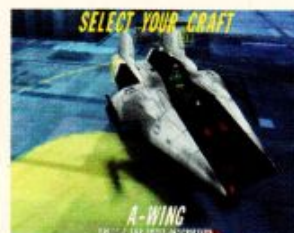
Yet size isn't the only thing that matters, and Rogue Squadron one-ups Shadows in several other gameplay departments, too. "Certainly it's doing a lot more stuff than Shadows attempted to do," Haigh-Hutchinson continues. "By focusing on one particular style of game this time, we managed to increase the frame-rate significantly [it runs at 30 frames per second]. The scene complexity is much bigger than it was before. You can see much farther than you could in Shadows. Certainly there are a lot more craft on the screen. We're going for a lot more special effects in terms of lighting, smoke and explosion effects than we could do in Shadows."

At the same time Rogue Squadron supercharges Shadows' snowspeeder-stage formula, it does share one major piece of gameplay common ground: Its missions are all based above a planet's surface. And that seems odd, considering three of the game's five ships are famous starfighters, built for blowing up Death Stars, strafing Star Destroyers and all the other rigors of deep-space combat. So why keep these craft from slipping gravity's grip? "Part of the reason is just for the new experience," explains Brett Tosti, Rogue Squadron's production manager. "After all, it's really simple for us to do a space level. You don't have to worry about terrain. You just put a star sphere around your ship. But then you would have a game very similar to a lot of the other games we've done: X-Wing, TIE Fighter, even Shadows and its TIE Fighter and Skyhook levels. With Rogue Squadron, we're just trying to give people a different kind of game."

Five seconds—the time it takes for Tosti to turn on the N64 and

fire up the game's Ship Selection Screen—is all we need to see that, yes, Rogue Squadron is an impressive-looking product. The front end runs in 640x480 resolution, and the Selection Screen's ships look incredibly crisp and detailed. Of course, working for LucasArts does entail certain perks for the game's artists. "We have a lot of good source material for the ships and everything," explains Craig Rundels, Rogue Squadron's lead artist. "We've been using a lot of reference from the archives, because we have a lot of archived stuff for the Star Wars ships, a lot of nice, high-resolution, high-detail imagery that the general public is not privy to and that we can get a hold of here. We use that a lot to give us a base point for the accuracy of the ships' texture maps in the game."

Although the actual in-game graphics aren't in hi-res, the player's fighter does appear crisp and authentic, thanks to some deft wrangling of the hardware. "We knew the N64 has the power in it to achieve more graphically," Rundels continues, "so rather than relying on some of the old models that were lying around, we pushed the polygon count up a bit on the craft—especially the player's craft—and went to hi-res on some of the textures." Rundels further explains that Rogue Squadron's fighters are composed of between 200 and 250 polygons. Onto them the artists have mapped the standard 64x64-resolution, 16-Bit-color textures, while in a

says. "That's our goal. And if the frame-rate permits it, the draw distance will be increased. If you have a very objective-intensive area like a city, it will bring the draw distance in a little. But you probably won't notice since you'll be focusing on the nearby buildings and enemies, anyway."

Back at the Factor 5 treehouse, we find Rudolf Stember, sound director of the Rogue Squadron project, surrounded by keyboards, mixers, speakers and other toys of his trade. He's just loaded Rogue Squadron's sounds into his main synth board and runs his fingers up the ivory keys, creating an impromptu cacophony of AT-AT stomps, blaster fire and other straight-outa-the-film effects. As with the ship models, many of these sounds are from the Lucasfilm archives and past Star Wars console and PC games. But the game's new vehicles required new effects, forcing Stember to invent homemade heavy-duty sounds from scratch. "When you meet a tank droid in the game, I used a bike chain to make that vehicle's rumbling," he offers as an example.
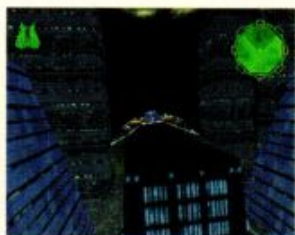
Next Stember fires up the game, which is

few places they've applied larger, 64x128 tinted grayscale textures. It is these higher-res textures—mapped onto the smaller polys afforded by the ships' high polygon count—that give the game a seemingly hi-res look. And let's not forget the landscape's real-time lighting cast from laser fire and explosions, not to mention the scattered particle effects.

Rogue Squadron's draw distance has also been the target of much tweaking. The programmers built the game's 3D engine with the intent to maintain a constant, fast frame-rate, and they didn't want to rely on overly foggy skies to hide the hardware's limitations. So, their solution was to allow a flexible distance to the horizon. "We always want to maintain 30 frames per second," Tosti

"we didn't want to make [the enemies] too smart. we're making them a little bit more predictable although not quite exactly cannon fodder."

—Holger Schmidt • Lead Programmer

10. taloraan

Unexplored gas-giant nearly 100,000km in diameter. Atmosphere is extremely rich in Tibanna gas and is breathable at very high altitudes.

11. fest

Site of secret Imperial weapons research facility primarily looking into metallurgical research (phrik, used in Dark Trooper armour, originates here...undermined by Kyle Katarn in Dark Forces).

12. chandrila

Serene agricultural planet known for producing fine political minds—most notably Mon Mothma (one of the youngest people ever elected to the Republic Senate).

Where did we dig up all of these Star Wars-related questions?

A) From a new Star Wars product
B) Off the back of a cereal packet
C) From a pop bottle lid
D) From the recesses of our brains

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story Time

Unlike Shadows of the Empire, all of the cut-scenes in Rogue Squadron make use of the game engine to present the story. Each of these sequences is scripted, sketched out and storyboarded before being passed on to the programmers.
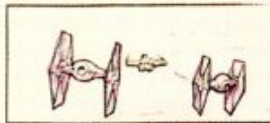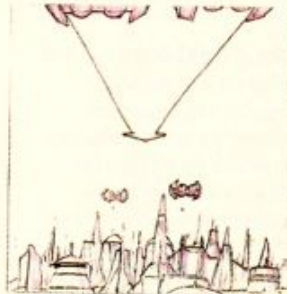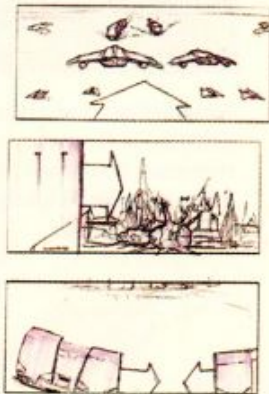
jacked into his supercharged sound system, and we're treated to another surprise: Rogue Squadron supports Dolby Surround sound. The N64 calculates every enemy ship's position in real time and generates the proper doppler effect. In other words, if you have the proper audio hardware (and if you don't you'd better read this month's feature on hi-fi gaming gear), you can hear the swarms of TIE fighters dart to your left, right and rear, making the action that much more immersive.

Equally impressive is the amount of digitized speech that Factor 5 has crammed into Rogue Squadron. You'll do very little reading of text in this game. Aside from the initial mission briefings, every other plot twist and in-game message is communicated through narration and radio chatter. You'll hear the usual wingman squeals for assistance, such as "I can't shake him!" and "I'm hit!" You'll also hear lengthy banter between Luke, Wedge and the rest of the squadmates (all voiced by sound-alikes, not by the films' actors). Factor 5 currently has a half hour's worth of speech to squeeze into the game, although that amount will likely be paired to around 20 minutes.

The inclusion of so much speech raises obvious comparisons with Nintendo's equally

A) From a new Star Wars product

A new multi-media reference CD-ROM for the PC to be exact, called Star Wars: Behind the Magic. This incredible resource is set to be released this September. Ever wanted to see the deleted scenes featuring Biggs? Or schematics for every ship and weapon? How about a trailer for *Star Wars: Episode One*? Bet that got your attention.

Front Row (left to right): R2D2, Dan Connors, Princess Leia, Yoda, Buddy Hannon, John Kathrein, Wicket, Kevin Schmitt, Jeffrey Kung, Chris Klie

Second Row (left to right): Craig Rundels, Wedge Antilles, Jens Petersam, Gaurav Mathur, Suzanne House, Thomas Engel, Mark Haigh-Hutchinson

Third Row (left to right): Dino Ago, Paul Topolos, Mike Dillon, Brett Tosti, Marc Overney, Razmig Mavlian, Rene Henki, Florian Sauer, Julian Eggebrecht, Mario Wagner, Boba Fett

Fourth Row (left to right): Jabba the Hutt, Aaron Young, Lando Calrissian, Chris Huelsbeck, Han Solo, Rudi Stember, C3PO, Kevin Grandt, Holger Schmidt, Martin Simpson, Ryan Kaufman, Chewbacca

Back Row (left to right): Wompa, AT ST

Photo by Heather Sutton   Enhancement by Buddy Hannon

chatty Star Fox 64, also a 12-Megabyte cart. Turns out Factor 5 went one step further than the big N in the talkie-talkie department. The programmers developed a proprietary compression system that can cram nearly four times as much speech into an N64 cartridge. "We talked to Nintendo and Star Fox has 20 minutes of speech, and they're wasting half of their cart space on it," says Julian Eggebrecht, Factor 5's president. "Rogue has half an hour, and we're using only a small fraction of our cart for that. Half an hour is as much as most PC games have nowadays on a huge CD. So when all of Rogue's cutscenes are done, I don't think you see the limitations of the cartridge at all."

Authentic sound effects and in-game commentary are important, sure, but nothing sucks you into the Star Wars galaxy more thoroughly than John Williams' classic scores. And it's in the presentation of these tunes that Rogue Squadron truly shines. Unlike Shadows, which played looping music samples, Rogue uses a MIDI-based music system and thus re-creates the scores through individually sampled instruments, pumping out near-perfect renditions of Williams' soaring compositions. But the real benefit of the MIDI-based system is the sheer amount—and variety—of music that will fit in Rogue Squadron (it packs much more than Shadows). In fact, the finished version of the game will feature between

40 to 50 music tracks, most of them based on Williams' original scores, some of them brand-new Star Wars tunes.

But here's the really, really cool part: Rogue Squadron's soundtrack reacts to your environment. "Each level has its own theme," Eggebrecht explains, "but when you fly into a combat area, the music will pick up tempo. Or it will switch to a new piece of music when you fly into a specific area. Fly over Luke's homestead on Tatooine, and the music will fade nicely into Luke Skywalker's theme. Banjo-Kazooie does this to some extent, but it only changes instruments. We actually change the score."

Rogue Squadron has undergone a relatively short development cycle. Haigh-Hutchinson completed the design document last July, and coding efforts got under way in September. When the game hits in November, it will have gone from concept to completion in about 15 months. Part of the reason for the quick turnaround, of course, was that the developers focused on a very specific type of gameplay here. But a certain other global phenomenon in the making had a little something to do with it, too. "We really wanted to get Rogue out by Christmas," Tosti says, "because next year is all about *Episode One*, and we didn't want to take away from that. This was our last chance to do a classic Star Wars game."

So, yes, Rogue Squadron will be the last console game based on what LucasArts is coining "classic" Star Wars—the story arc depicted in the three films, novels, comics and other spin-off products.

Or maybe not.

"I'm sure that at some point in the future," Tosti adds, "when we're done with the prequel stuff, we'll look back and say, 'Gee, wouldn't it be great to do a classic Star Wars game again.' That will happen. I guarantee it."

13. sullust

Volcanic world that is home to the mouse-eared, wide-eyed humanoids who inhabit vast underground cities. Sullustans of note include Nien Nunb, Lando Calrissian's co-pilot and his sister, Aril who served as XO in Rogue Squadron.

14. thyrerra

Ultra-humid rainforest world noted for being the center of the galaxy's bacta industry. Inhabited by the mantis-like Vratix who are credited with inventing the remarkable medical fluid.

15. mon calamari

Aquatic homeworld of noted Rebels such as Admiral Ackbar, this water world is home to more than 27 billion inhabitants. Mon Calamari is noted for excellent starship design and construction.

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