STRIKE COMMANDER

*I*n the beginning there was **Wing Commander**™, the revolutionary gaming experience integrating 3-D animation, VGA graphics and a fully-orchestrated soundtrack. *Wing Commander*, the brainchild of creator/producer Chris Roberts, became the smash hit of 1990 and the industry standard in the burgeoning field of interactive cinema.

Roberts' pioneering vision was further refined in **WING COMMANDER THE SECRET MISSIONS**™ and **WING COMMANDER THE SECRET MISSIONS 2: Crusade**™, pushing forward the boundaries of cinematic game-playing for all time.

When **WING COMMANDER II Vengeance of the Kilrathi**™ was released, many players believed that the outer limits of quality had finally been attained.

They were wrong.

Incorporating *the* most powerful 3-D graphics system ever written for a PC into a fully realized cinematic world, Roberts and the creative team at ORIGIN are proud to present the greatest actualization of interactive cinema yet, *Strike Commander*™. ∎

The Technology

In order to achieve the spectacular look so vital to the realization of *Strike Commander*, Roberts had to push forward yet again the boundaries of computer technology. *Strike Commander*, with ORIGIN's new RealSpace graphics system, reaches levels of graphic complexity never before achieved on a personal computer.

Most of the flight simulator programs available today render simplistic geometric representations of terrain and man-made landmarks. This results in low-quality graphics because any object to be presented must be kept very simple. Since the computer is rendering the object in real time, the computer can't process it fast enough to realize any degree of detail. Aircraft in such programs are usually flat-shaded and look like flying triangles, and the terrain resembles a patchwork quilt of blandly colored cloth triangles.

Chris Roberts, who also serves as ORIGIN's Director of New Technology, made this method obsolete with the release of the *WING COMMANDER* series, providing gamers with unparalleled graphic detail.

In *Wing Commander II* he refined these innovations further. The process is complex: graphics are bit-mapped as 3-D objects, and then the computer essentially shoots pictures around them from every angle, using a special 3-D modelling package. During play, the appropriate images are called up, based on the player's ever-changing perspective. The advantage of this process is that detail on the images can be incredibly rich. Fully texture-mapped ships with 90,000 polygons are possible, making them look more like studio-built special effect models than computer graphics.

Strike Commander uses the best features of both approaches. The RealSpace system takes advantage of the incredible bit-mapped resolution of *Wing Commander II* when displaying ships and other objects. However, to generate terrain, it resorts to the standard polygonal approach of traditional flight simulators. *Strike Commander's* difference lies in the refinement of the polygonal system itself. Instead of producing flat beds of "terrain," with a couple of pyramids breaking (cont.)

Nothing you've ever seen before can prepare you for... *Strike Commander*

Strike Commander combines ORIGIN's ground-breaking Re·lSpace™ 3-D technology and its ORIGIN FX™ sound and graphics system with a compelling screenplay and fully orchestrated soundtrack. It is Roberts greatest triumph yet, an experience so intense it ceases to be *just* another flight simulator. *Strike Commander* is an entirely new form of entertainment—a movie in which *you* are the star.

You will be thrust into an alternate reality of fractal terrain and atmospheric hazing ... of 3-D realtime bitmapped images ... texture-mapped and gouraud-shaded polygonal objects ... all of such incredible detail, you can view them from any angle as you thunder through this computer-generated world of jet speed and constant thrills. This is the world of *Strike Commander*. ∎
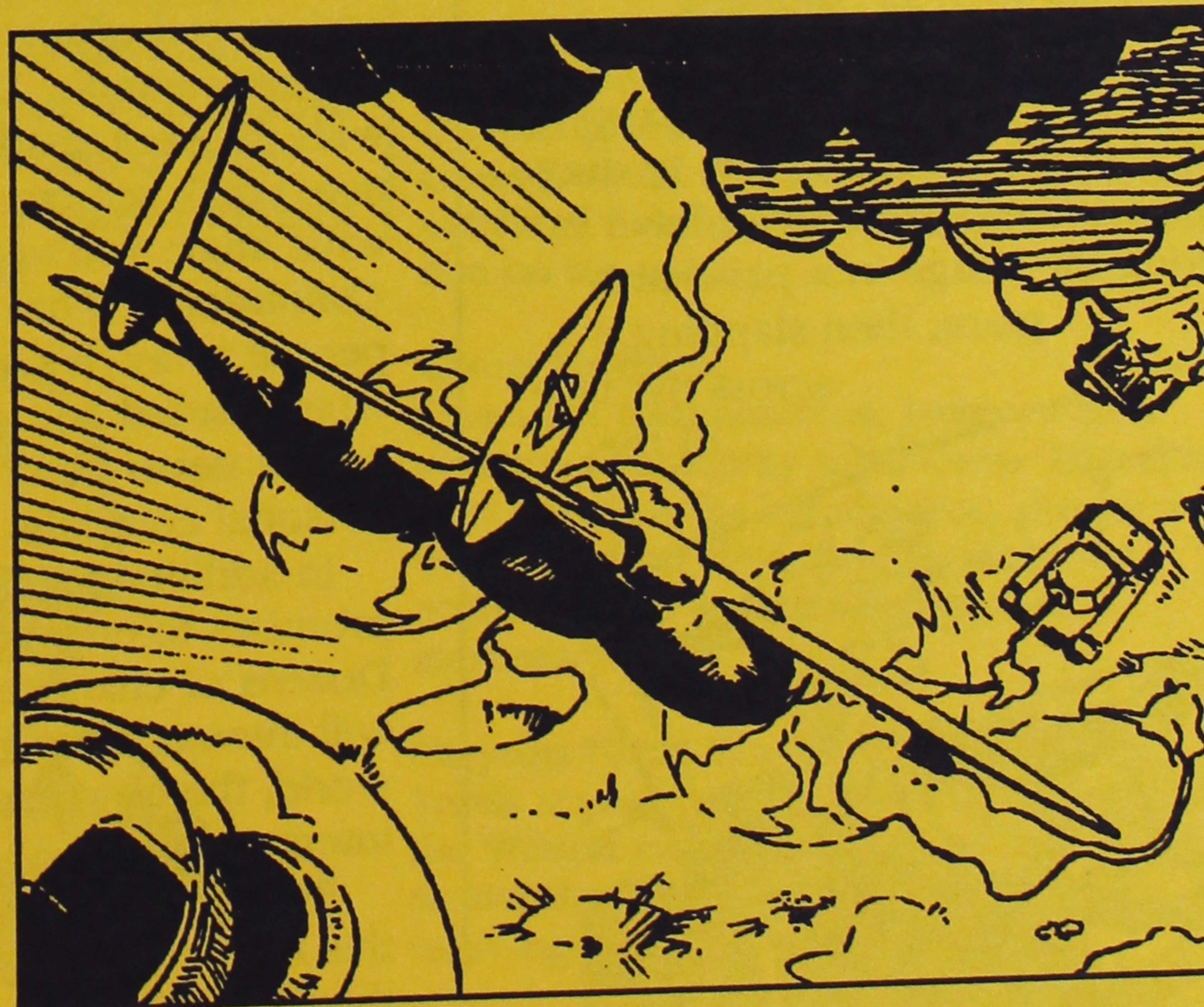
The Technology (cont. from page 1)

the monotony here and there, the RealSpace 3-D system generates shaded, rolling terrain with mountains, valleys and lakes of breathtaking detail and realism.

This achievement is possible because the terrain in *Strike Commander* is tessellated and fractally generated. The fractals, reproducing the chaos inherent in natural formations, make the terrain look exceptionally realistic, while the triangles forming the tessellated terrain are gouraud-shaded. Here's the difference: typically, each triangle generated to form terrain in standard flight simulators is flat shaded. In *Strike Commander*, though the land is still constructed of triangles, each vertex in each triangle has its own shade level. The end result of this innovative process is that, while flying over the rolling hillside, the player can't see any triangles! This is essentially the process used in multi-million dollar military flight simulators. Amazing detail is possible in the RealSpace system, but what really completes the illusion of an alternate reality is the addition of texture-mapped terrain details, such as jagged coastlines, snow peaks and ocean waves, and the addition of atmospheric hazing to complete the naturalistic effect. Atmospheric hazing ensures that, as you move away from an object, detail is obscured and the object grays out, exactly as it does on a misty day, giving the player an incredible sense of depth.

Strike Commander not only generates realistic terrain, but also uses bit-mapping to generate realistic objects as well. Objects such as panelling, insignia, fighter planes and burnmarks are all displayed with texture-mapping. Texture-mapping enables you to draw a bit-mapped image in great detail by rendering the image in a paint program, then slapping it across the face of the
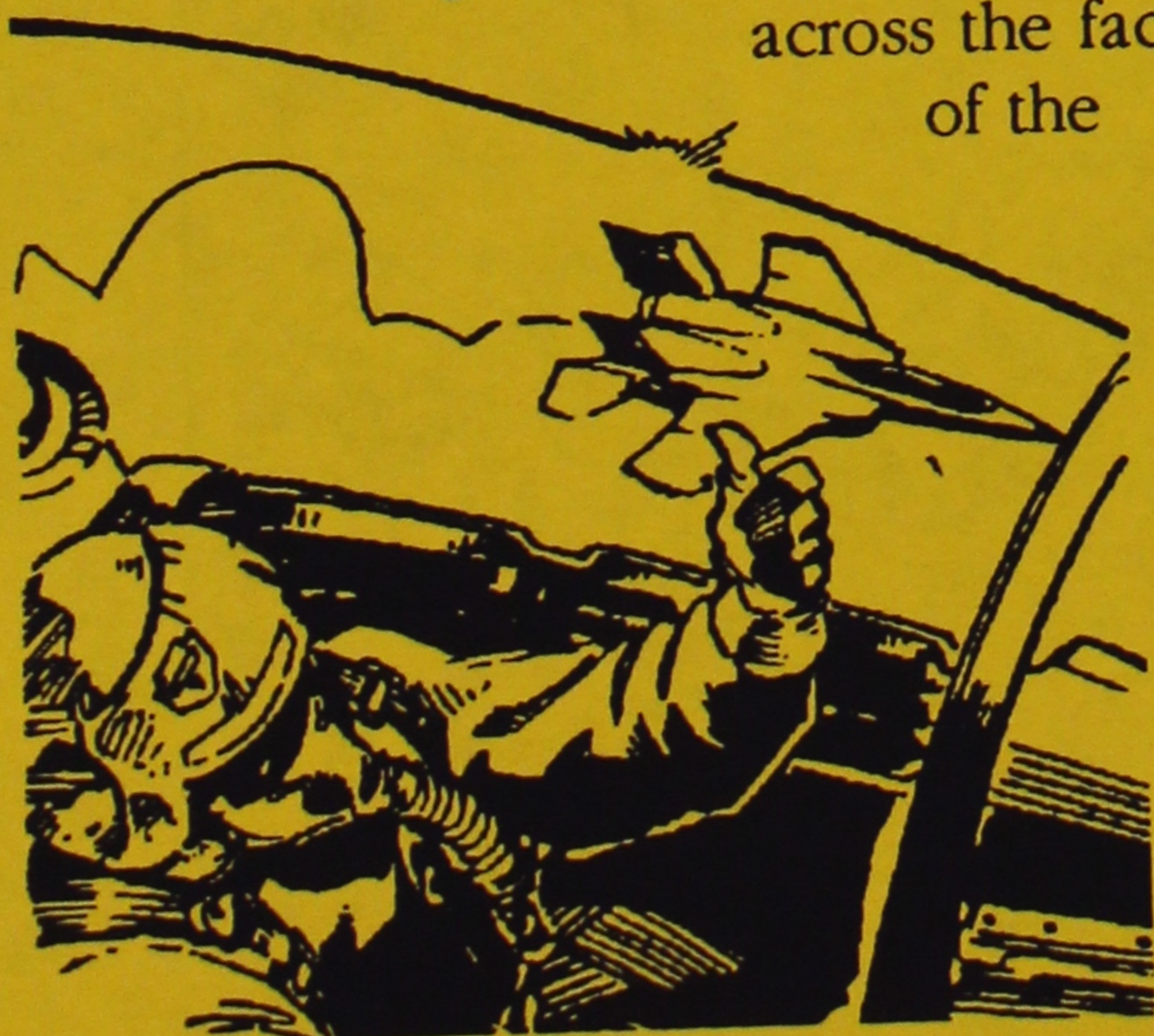
object. The program knows that the face is texture-mapped, and can transform the image based on the angle from which it is viewed. This is the same process used by supercomputers to get highly photorealistic models, and is used to great advantage in *Strike Commander*. The result is the production of polygonal objects as rich and detailed as hand-rendered images, different only in that you can move around them in three dimensions.

Roberts sums up the process enthusiastically: "Using a combination of 3-D bit-mapping, texture-mapped gouraud terrain and polygonal objects, we create a three dimensional world that is far more realistic than anything ever seen on a PC before! It's the same thing a military flight simulator does. Apart from the fact that we're in a lower resolution, we're approaching that level of realism. All this comes together to build a sense of an alternate reality. When you're flying in 3-D, you feel like you're *there*." ■
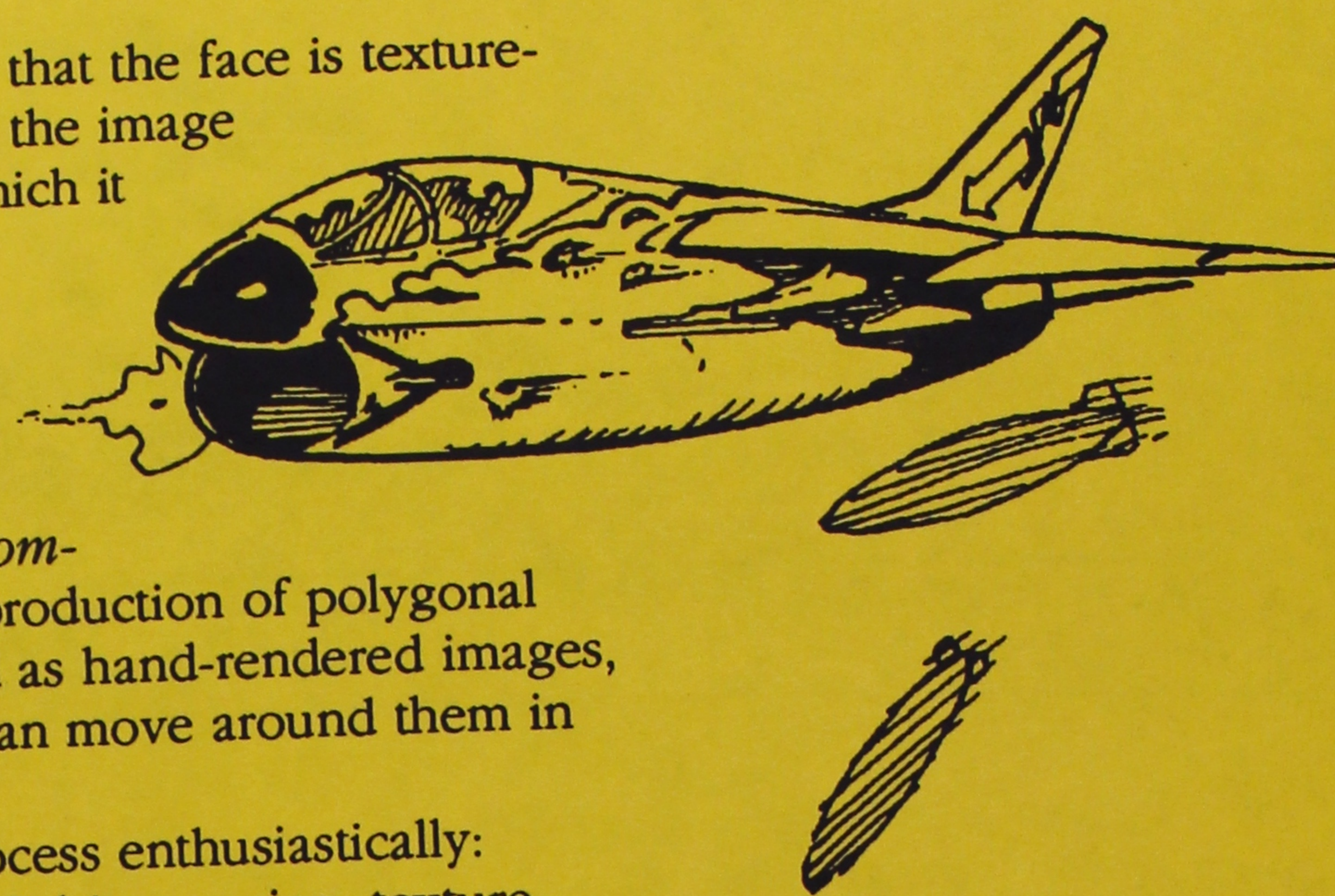
Strike Commander
The Creation of an Interactive Movie

ORIGIN and Chris Roberts are pioneering in an emerging form of entertainment: the interactive movie. As in the *WING COMMANDER* series, *Strike Commander* provides players with a cinematic experience within the framework of a game. It involves them emotionally with believable characters against the backdrop of a script that unfolds according to how they perform in battle sequences. More than ever, the increasing technical abilities of the RealSpace system make possible cinematic sequences of increasing drama, with breathtaking shots and dynamic cuts. Directors at ORIGIN now have the same cinematic tools at hand as their Hollywood counterparts.

To execute a cinematic sequence, the director and his programmers collaborate on a vision for the scene, and then use a 3-D rendering package to construct an entire "set" within the studio. Planes, tanks and other mobile objects are built that move around the set in a preprogrammed pattern, and the director indicates what camera movements he wishes to install. The program is left to execute its instructions, and eight hours later the designers have a sequence composed of hundreds of frames which would have taken animators hundreds of hours to produce.

"Using these computer-based techniques, we can create complete scenes and special effects that most film production companies can't afford to do," Roberts remarks. "*Strike Commander* has richly textured green hills and water with different shades of blue depending on its depth. From the right perspective, you'll see crescent waves. Fly over this terrain in true 3-D, no matter at what angle you're watching, and you'll be saying 'My god, I'm here!' *Wing Commander II* has a taste of it, but *Strike Commander* is just going to blow people away. It's going to take a lot of disk real estate, about 8 to 15 meg. when loaded and uncompacted on a hard drive. But I truly believe that you've never before seen anything in terms of this, an interactive movie, on a personal computer."

In addition to the technical aspects, the *Strike Commander* story line promises to engage players emotionally to a degree never before attempted. Dozens of characters, each with distinctive personalities and unique conflicts, will interact closely with the player, drawing him relentlessly into the fictional world, thereby increasing absorption in the game to deep new levels of interaction.

Roberts sums up: "As we move into CD-ROM medium development over this next year, we'll be making interactive movies. And it'll be one step better than movies because you'll be inside of it. Give us five to ten years and watch out, Hollywood!" ■

The New World Order of *Strike Commander*

The United States

The second American economic collapse occurred on April 24, 2000, when an international run on oil futures, exacerbated by a particularly poor dollar to yen exchange rate that day on the market, precipitated Black Monday III. Major banks closed their doors, prompting a run on all domestic banks and S&Ls. The federal government was close to bankruptcy.

Shortly thereafter, the oft-predicted "Big One" hit California. Californian industry lurched to a halt. When the federal government refused to supply disaster aid because of the financial crunch, California threatened secession from the Union. Although the government had the power to crush California, it realized the futility of destroying a state in order to preserve it for the Union. As the feds searched for solutions to this problem, Congress levied stern new taxes to compensate for the FDIC debacle.

The combination of an added tax burden for the rest of the nation, coupled with favored treatment for California, prompted the withdrawal of several states from the Union. Texas was the first to go. Other states followed Texas' lead, until twelve of the fifty states had declared their independence. Tennessee, Mississippi, Alabama and Georgia merged under one government, The Southern Confederate Bloc, and have since pressured Florida to join them.

The Dawn of Mercenary Involvement in Global Politics

Shortly after California threatened secession, eco-terrorists seized Yosemite National Park. Mercenaries, thinly veiled as "security forces" hired both by the eco-terrorists and the Far East owners of the park's Camp Verdant tourist concerns, were soon exchanging heavy gunfire. This was the first time mercenaries were legally employed on American soil, allowed by the greasing of palms throughout the federal government.

After the secessions, the IRS was granted rights above and beyond the Constitution to collect on tax debts. The Director of the IRS, in a preliminary campaign, hired a Dutch mercenary commando unit to help collect taxes in New York City, following a street war in which New Yorkers repelled IRS auditors with automatic weapons. Ultimately, the IRS attained nearly limitless powers to enforce the tax code on each remaining state, as the federal government desperately attempted to regain solvency.

Rise of the Multinational Corporations (MNCs)

Following the bankruptcy of the federal government and several armed attempts by the IRS to collect additional taxes, leading multinational corporations met in Stockholm in 2002 for the First Multinational Corporation Summit. At this conference, the corporations declared their sovereignty and unaccountability to individual nation-states or to representative units that engage in terrorist activities (i.e., the IRS in its new mode of operation). This independence was challenged by several governments, prompting the corporations to invest in their own defensive forces. By 2005, full-scale inter-corporation wars were commonplace.

Turkey and the "Mercenaries' Market"

By the year 2003, Istanbul had become known as the Mercenaries' Market. This reputation followed Turkey's extension of "Turkish Armed Forces" rights and privileges to mercenary squadrons, in exchange for a 10% share of their profits. The Turkish Mercenary System uses loopholes in international law and twists in the current chaotic flux of international law to its advantage. Mercenary squadrons from Turkish bases are considered emissaries of the Turkish government, and so are able to operate with relative impunity within the borders of other countries, shielded by a bizarre form of diplomatic immunity. ■

The Wildcat Squadron

As a player, your role in Strike Commander is that of a crack mercenary pilot in Stern's Wildcats, second-in-command to James Stern himself. You fly a variety of missions, hiring out your services as a deadly pilot, weighing the mission payoffs against the risks involved and the demands of honor. You must rely on your wits and guts and on the skills of your fellow Wildcats to survive in a merciless world.

The Wildcats fly a fine line between right and wrong, profit and loss. You must determine the viability of missions from a logistical and moral standpoint. Other characters in the game will advise you, but ultimately the fate of the Wildcats is in your hands. The outcome of the scenario will be determined not only by your skill in battle, but by your wisdom as well.

Commander James Stern.
The loss of his carrier, The U.S.S. *Shiloh*, in the Petro Wars of 2001 prompted Stern to resign from the Navy and establish his own squad of mercs, based as much on sound moral principles as sound profit margins.

Lyle Richards.
The only other survivor of the U.S.S. *Shiloh*, Lyle Richards fought valiantly against hopeless odds until he was forced to eject. This experience scarred him, and he struggles daily with the knowledge that his deepest fears may endanger his team members on some future mission.

Billy Parker.
Billy Parker is a talented, fearless pilot. Ironically, the very aggressiveness that bolsters his kill ratio also makes him a dangerous wingmate. Unless you can keep up with him, you'd better stay back at the base!

Miguel Schrader.
Having been a Nicaraguan POW, Miguel is knowledgeable of adventurism's political consequences. He understands the hidden pitfalls of mercenary work better than anyone else on the team.

Gwen Forester.
Gwen is a total anarchist, having a great aversion to authority in all forms. Miguel and Billy are rivals for her affection, placing stress on a squadron already besieged by the economic and strategic demands of mercenary life.

Clayton "Tex" Travis.
Travis is your personal devil throughout the Wildcat campaigns. Will his ambition shatter the Wildcats, or can you keep the team together? ■

The Creators

Chris Roberts' (Director) career has been distinguished by such early game creations as *Bad Blood*™ and *Times of Lore*™ for Origin and, of course, the smash hit *WING COMMANDER* series. *Strike Commander* is the next logical step toward perfecting the type of interactive cinema pioneered in *Wing Commander*.

Dallas Snell (Executive Producer) has over 10 years experience in designing, programming and managing home computer software development. Dallas joined ORIGIN in 1985 and now serves as Vice President of Product Development. He has assumed product development leadership for more than 20 titles, including the entire *WING COMMANDER* series.

Alan Gardner (Associate Producer) has worn many hats since his arrival at ORIGIN in 1987. He came to the company after several years as a managing editor at Softdisk Publications. Alan started at ORIGIN as lead programmer for *Windwalker*™. These days, Alan keeps busy by managing the schedules of ORIGIN's state-of-the-art entertainment projects like *Strike Commander* and *Ultima VII*™.

G. P. Austin (Screenwriter) has written, produced and directed three short independent films, has completed several plays and feature-length screenplays, and has published several short stories and a novel. At ORIGIN, Austin has written for *WING COMMANDER II Vengeance of the Kilrathi*, and now serves as the primary writer for *Strike Commander*.

Bill Baldwin (Programmer) has worked on *Wing Commander II* since joining ORIGIN in December 1990.
He has a degree in physics, and can often be found playing guitar in various rock bands.

Chris Douglas (Artist) joined ORIGIN in January 1991. He executed artwork for the first and final midgames of *WING COMMANDER THE SECRET MISSIONS 2: CRUSADE*. Douglas has worked extensively on 3-D modelling in *Wing Commander II*, including the design of various Kilrathi ship types.

Martin Galway (Audio Director) is a top British computer musician who started his professional career in 1984, at Ocean Software, the leading European games company. He began at ORIGIN by composing and programming the soundtrack for ORIGIN's *Times Of Lore*.

Danny Garrett (Artist) has performed extensively as a freelance artist in the music industry, working with such notables as Eric Clapton and Bonnie Raitt. He also has done film set work for numerous films including *Raggedy Man* and *The Hot Spot*. Most recently, Danny served as art director for *Scary Movie*.
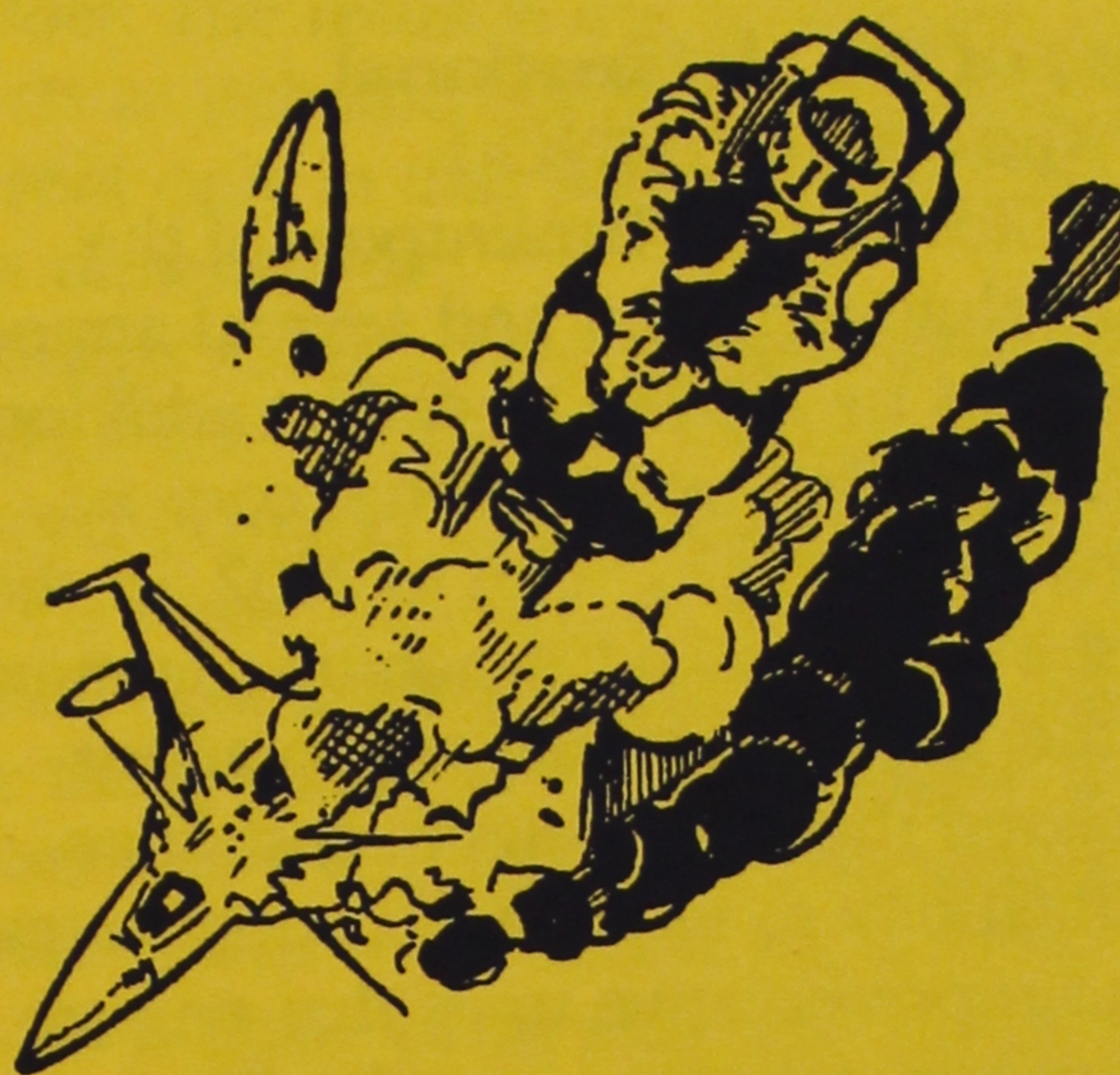
Dana Glover (Composer) is creator of Nightshift Network, a group of composers who have been ghostwriting for major motion picture soundtracks over the past twelve years. His work has been heard in *Apocalypse Now*, *Rain Man*, *Misery*, *Robocop II*, *Beetlejuice* and many more.

Ellen Guon (Scenarist/Writer) began her career in the computer game industry by writing/producing three games for Sierra On-Line. At ORIGIN, Ellen has written and/or directed for most of the *WING COMMANDER* series. She has also published numerous short stories, children's television scripts and her first novel (*Knight of Ghosts and Shadows* with Mercedes Lackey, in 1990).

Todd Hartmann (Programmer) has years of experience in the scientific/engineering software arena, working for both NASA and the U.S. Army. He is currently programming fractal terrain generators for ORIGIN's new RealSpace 3-D system.

Paul Isaac (Programmer) joined ORIGIN at the tender age of 18 after teaching himself programming on an Apple IIe. One of ORIGIN's original four programmers, Paul programmed such hits as *Wing Commander*, *Times of Lore* and *Bad Blood* for play on Commodore, IBM and Apple systems.

Bruce Lemons (Artist) joined ORIGIN in April 1991 and went right to work on 3-D modelling of backgrounds and animated sequences for *Wing Commander II*. With a degree in architecture, he has been an architectural designer, illustrator and 3-D computer modeler.

Paul Lidberg (Writer) comes to *Strike Commander* after writing for *Wing Commander II*. His previous experience is in the adventure game industry, most notably as designer of TSR's *A Line In The Sand*.

Denis Loubet (Artist) has provided computer graphics and cover paintings for numerous ORIGIN releases. Denis heads the computer art department at ORIGIN.

Jake Rodgers (Artist) got his start producing two dimensional drawings on CAD for architects and engineers. About three years ago he progressed to 3-D modelling and animation for pre-construction visualization. Jake modelled all the ships for *Wing Commander II*, as well as several midgames.

Marc Schaefgen (Audio Editing) has an extensive background in music performance. After providing sound effects and music editing on several ORIGIN games, *Ultima VII* was his first project as actual sound engineer, encompassing sound effects, music editing and digitizing. Marc is also a member of The Lost Band, whose first album was just released.

Jason Templeman (Programmer) has degrees in physics from Berkeley and computer science from the University of Texas at Austin, where he specialized in graphics and artificial intelligence. Beginning with a summer job at ORIGIN, he went on to help program *ULTIMA The Savage Empire*™.

Nenad Vugrinec (Environmental Sound Effects), born in Yugoslavia, moved to Germany after high school to work on his own recording studio projects. Nenad has also worked as a performance artist on keyboards, and has programmed synthesizers and sequencers for rock bands.

Gary Washington (Artist) worked as a freelance artist for various independent comics and game companies. Originally from Detroit, Gary lent his talents to ORIGIN first on *Wing Commander II*, then *Ultima VII*, before moving on to *Strike Commander*. ∎

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