

neak Peek: **A-10 Attack**

by Tyler Gee

NOTE: Screen shots and information presented in this article are based on a pre-release version of A-10 Attack and are subject to change before final release. This article is not a review.

It has been almost two months since the MacWorld Boston 1994 latest showing of Parsoft Publishing's A-10 flight simulator, and over a year since the first public showing of the original demo. For most Mac-Gamer's, not much is known about Parsoft or "A-10 Attack!", except that Parsoft created the popular Hellcats over the Pacific, which was published by Graphic Simulations Corporation. The creative genius behind both of these simulators is Eric Parker.

Eric Parker created Hellcats on his own time, frequently working long into the morning hours after a full day at work. He committed himself to Hellcats because no other flight simulator offered the features and flight performance he wanted. Parker's solution to this problem was to design a simulator that contained the features he wanted to see. The successful creation of Hellcats put to rest the stories of how the Macintosh would never be a good "gaming platform." The fun to fly and simple interface of Hellcats, along with its stunning graphic speed finally gave Macintosh fans a smoothly animated flight simulator they could show, without shame, to their friends with PCs.

Since that time, other publishers have joined the community of Macintosh flight simulator publishers. Success for some has been mixed, with top awards going to originally created Macintosh simulators, and to well-crafted ports of the better PC software. What we have all been waiting for however, is a modern jet combat simulator that combines the fun parts of Hellcats, with the technical sophistication of GSC's "F/A-18 Hornet." Our wishes will soon be fulfilled with the introduction of "A-10 Attack!" by Eric Parker and Parsoft.

Let There Be Light. The biggest area of complaints about existing simulators centered on the lack of realism in flight simulato^r. Most simulators of preceding generations were somewhat inaccurate representations of the aircraft they were supposed to simulate. Some had simplified visual displays designed more for arcade games. Others had reasonable representations of the systems, but proved difficult to fly because of grossly inaccurate flight models coupled with poor animation and slow frame rates.

Parsoft has addressed these concerns in "A-10 Attack!" by integrating a state of the art flight simulator with highly detailed graphical replicas of the instrument panel, flight systems, terrain, and flexible mission planning with randomly selected events.

Scheduled for release some time in October, "A-10 Attack!" will bring to Macintosh flight simulator fans the best of both worlds: a fun to play CAS (Close Air Support) aircraft simulator, and a state of the art simulation based on precise flight models.

The initial release of "A-10 Attack!" will be a version for 68k machines, to be followed by a version optimized for the new PowerMacs. The program can support up to four multiple monitors in sizes from 13", 16", 19" to 21". There will also be the option of turning off some graphical features to ensure that the simulator is compatible with older, slower Macs. "A-10 Attack!" is designed to run on 16Mhz '030 Macs or faster, but an '040 Mac is naturally recommended.

[lying in Hog Heaven](#). At this point of the beta testing phase, the only missions available to test fly are based on "Red Flag" training exercises. Since many nations participate in these exercises, you can expect to operate with many different allied aircraft types. Future missions are in the planning stages, and will use the VBE capability that will be part of all simulation products from PPI. Missions are designed to involve more user interactivity. Users will be able to choose which A-10 they want to complete the mission from several that are scattered at bases around the world. Once airborne, the user can command several A-10s by 'hopping' from plane to plane. If an A-10 under the user's command is killed, the user can then select another properly armed A-10 to continue and complete the mission. A-10s as well as other aircraft can be monitored in the Map Mode by 'chits.' The user will also be

able to change an aircraft's waypoints, altitude and airspeed to best suit the changing situation of a mission.

The terrain that the Warthog gets to play in will range from flat featureless desert to rich urban landscapes, alpine regions, and deep river canyons. The modeling that went into the terrain has been carefully tailored to match the actual environments that A-10 units are currently operating in.

[What is VBE?](#) One of the key features of "A-10 Attack!" is the inclusion of VBE (Virtual Battlefield Environment) capability. VBE will revolutionize the creation of simulations in the future. It will allow additional players onto the same virtual battlefield. This is not just a simple scheme to allow multiple players, but rather a protocol that will allow additional players to join the simulated battle in units as diverse as armored vehicles, helicopters or planes other than A-10s. VBE modules can be stand alone simulations, or added to the common battlefield for other players to use. Adding modules will be as simple as dropping the new module into the VBE folder (ala Photoshop plug-ins). Network play with dissimilar units is now possible with VBE, and "A-10 Attack!" will be the first of many VBE modular simulations to be released.

[Who Said Hogs Can't Fly?](#) The "A-10 Attack!" flight model has been refined over the past year to a highly sophisticated model based upon many hours of actual flight testing by military test pilots. The main emphasis to date has been to make the flight model perform as close to the actual aircraft as possible. This has been accomplished by the simulator solving physics equations instead of just using calculated tables. This means that the simulator can handle a wider range of flight characteristics. The simulator will also react more closely to

the actual airplane, by calculating the actual forces acting upon it. A good example of this would be the actions of the landing gear struts. The compression of the plane upon the struts is actually calculated. This means that when a plane comes in for a landing, it 'bounces' according to the downward force of the plane upon touchdown. Other simulators simply create a programmed response to the plane touching down. It is always the same no matter how hard you land, or what you land on. "A-10 Attack!" will give the user a different feel dependent on how hard (or soft) he lands and what he lands on (runway, dirt, grass, etc). With this level of detail to just the landing gear, a user can imagine what will be available with the plane itself.

The complexity of the flight physics model used in "A-10 Attack!" ensures that pilots looking for a real flight simulator won't be disappointed. The A-10 was designed at a time when artificial stability was in its development stages, and digital fly by wire was still science fiction. This meant that a maneuverable aircraft like the A-10, would have little in the way of stability. Some handling vices at the extremes of its flight envelope can be expected, and they will bite the unwary.

[Who's in Control Here?](#) The full range of controls supported in "A-10 Attack!" include the keyboard, mouse, most popular joysticks, game controllers, and the incomparable ThrustMaster control systems. Full support is included for the entire ThrustMaster range including FCS (Flight Control System) WCS (Weapons Control System) and RCS (Rudder Control System). "A-10 Attack!" will allow the use of most weapons that the actual aircraft is cleared to carry. This includes a full range of Air-to-Air missiles, Air-to-Ground Missiles, Smart, and Dumb Bombs, and other mission-related stores.

In simulators to date, the user has pressed keys on the keyboard to activate weapons, change modes, etc. "A-10 Attack!" will be different in that the user will be able to click on an instrument panel button to select weapons, or turn a knob to change modes. This will place the "A-10 Attack!" user one step closer to reality. (Those of you who are accustomed to using a keyboard needn't worry though, mode changes and weapons selection can also be set with keystrokes).

Weapons selection will be done with a menu that lists each type of weapon available, where it can be mounted, and how that device will affect aircraft performance. The changes in performance due to loading must be considered by the pilot for the successful completion of his assigned mission. Since the A-10 can be expected to deploy and operate from forward locations, including sections of roadway and short unprepared fields, it is possible to overload the aircraft to the point where safe operation is impossible for the type of runway available. This is just one more area where proper mission planning is required, and available to enhance the simulation experience.

[ircraft Avionics Systems](#). The avionics available to the A-10 pilot reflect most of the latest LASTE modifications installed in the current A-10 inventory. This includes a Heads Up Display, Autopilot, Radar altimeter, TACAN receivers, Threat Warning Indicators, and a CRT display to view targets through the E/O (Electro-Optical) sensors included in some weapons systems.

[Where is the Computer?](#) What is not present on the A-10 is a radar or a computerized fire control system. The A-10 was designed in the early 70's when aircraft systems for CAS missions were simpler. This gives "A-10 Attack!" a more intensive flight environment than any other modern air combat simulator. The very nature of the beast is its "in your face" combat and flying qualities. The very success of the missions will depend on the skill of the pilot in performing all the tasks required. Push button warfare means less here, compared to refining the skills of the pilot, and hunter.

[Attacking in October!](#) By designing a state of the art simulator around a successful older aircraft design that has a brilliant combat record, Parsoft will be providing simulator fans a versatile weapons system that will allow the true complexities of modern battlefield tactics to be combined with a flight simulator that can challenge the most experienced pilots, and still be managed by novice flyers. The addition of VBE to its feature list makes "A-10 Attack!" the first of many VBE compliant simulation products that will allow additional players in widely different simulation products access to the same battlefield.

Tyler Gee is a former U.S. Air Force Instructor who lives in Northern California.