



**ECCENTRIC
SOFTWARE**

EAT MY PHOTONS!

**USER GUIDE
FOR MACINTOSH**

Eat My Photons!™
version 1.0 for Macintosh

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Don't Read This Guide!

We don't like writing these things any more than you enjoy reading them. Let's face it, really good software shouldn't need documentation. So put down this User Guide, install the game onto your hard disk, and start blowing things up.

You're still here. Perhaps this isn't *really* good software — or maybe you just can't follow instructions. That's okay, we've tried to make this guide as readable as possible, so feel free to skip or skim at your own speed; you can always refer back to this guide.

How to use this guide

Apart from this Introduction there are five chapters:

Chapter 1: Getting Started

Briefly discusses system requirements, game basics and installation. (In a nutshell: insert Disk 1 into your floppy drive, and double-click on the Install Photons icon.)

Chapter 2: How do I play this thing?

A discussion of game objectives, strategy and controls. If you can't figure out how to play the game just by playing the game, then this is the chapter to read.

Chapter 3: Keyboard, Mouse and Joystick Controls

A detailed discussion of keyboard, mouse and joystick controls. Try the Quick Reference Card first.

Chapter 4: Customizing Settings

A discussion of the various options available from the Setup window, and how they effect game play and performance.

Quick Reference Card

Okay, it isn't really a chapter, and it's not a card; it's just the back cover of this user guide. But it should be all you really need to wreak havoc on the enemy.

This guide also includes a complete Index and Table of Contents. But really, *Eat My Photons!* is what it is, so don't be afraid to fly around and blow up a few things before reading any further.

A few words about *Eat My Photons!*

Eat My Photons! was designed and developed by Neil Radisch and Julian Hyman. Programming wizardry and original music composition by Neil Radisch. Everything else by Julian Hyman.

This User Guide was authored by David Goldstein and edited by Maureen Judge. Package design was created by Dan Sheehan.

A few too many words about Eccentric Software

Eccentric Software is a publisher of education, entertainment and content based software for home, school and work. Our titles include *A Zillion Kajillion Rhymes*, rhyming dictionary software for Macintosh and Windows. And with your continued support you'll see a lot more from us in the future.

Eccentric Software passionately believes that great software is a work of art, and that great programmers deserve artistic freedom. If you are a software artist looking to bring your latest masterpiece before a larger audience, don't be afraid to drop us a line. The worst that could happen is a polite rejection.

Customer support

We welcome your questions and comments. You can contact Eccentric Software at (206) 628-2687 between the hours of 9 AM and 5 PM Pacific Time, Monday through Friday. Fax, postal and electronic mail addresses are printed on the inside cover of this guide.

Please take the time to complete and return the enclosed registration card so that we may serve you better. Registered owners receive notice of upgrades, as well as unlimited technical support and discounts on future products.

Getting Started

Eat My Photons! is a 3D space simulation game in an arcade game setting. The object is to defend your base from incoming drones, while defending yourself from enemy fighters. Points are scored by destroying enemy targets; new missiles, ships, and bases are awarded for reaching higher levels.

Eat My Photons! is also two games in one. Every mission is a choice between Stellar and Ground scenarios. Ground missions plunge you into a 3D hover-tank battle over a fully textured planet surface, while Stellar missions explode into full 3D space flight simulation.

System requirements

Eat My Photons! runs on any 68030 or faster color Macintosh, under System 7.0 or later. The application will run on a PowerMac, but is not native-PowerPC.

Installation requires 4.5 MB of free disk space. As shipped, the game is configured to use a minimum RAM partition of 3 MB. You may run the game in as little as 2.5 MB of RAM, but the musical score will be disabled.

Installation

Eat My Photons! ships compressed on two 1.4 MB (DSHD) diskettes. An automated installation program has been provided for your convenience.

Disk 1:

Contains the "Install Photons" file. A "Read Me First" document may also be include, describing last minute additions and changes to this User Guide.

Disk 2:

Contains the "Photons 2" file. This file is automatically read and decompressed by the installation program.

Insert Disk 1 into your floppy drive. If the disk contains a "Read Me First" file, please read the document in TeachText or any word processing application before continuing.

Double-click on the icon of the "Install Photons" file. The installation program will now launch, prompting you with further instructions.

A (very) Quick Guide

Eat My Photons! is easier to play than it is to master. Follow these simple instructions to get your feet wet.

Launch application and choose settings

Double-click on the application's icon to launch *Eat My Photons!* After an opening animated sequence, the Title screen will appear. Click on the Setup button from the Title screen to go to the Setup screen. Choose an input device (keyboard, mouse or joystick) and any other settings you would like. Click Done to return to Title screen.

Start new game and mission

Click on the New button to start a new game and go to the Mission screen. Choose a Ground or Stellar mission by clicking on the appropriate Accept button. After a few moments the Cockpit screen will appear. The large 3D object immediately in your field of vision is your base; you must defend it all costs. (It's also a good idea not to fly into it.)

Navigation and Radar

Most of the information you really need is on your Heads Up Display (HUD), the text and graphics superimposed on your field of vision. Cockpit radars and CRTs provide other useful information. Targeting information changes according to weapon selection and object targeted. Upon starting a new game, the weapon selection defaults to lasers. No object is automatically targeted at the start of a new mission.

Start blowing things up

Press the G key to target the drone closest to your base. The drone is most likely not in visual range, so its location will appear on the HUD as a box attached to the center of your directional site by a single line. Steer your ship towards the direction of the target, until it is centered within your site. As you make visual contact and the target moves within weapons range, the target box will change shape to an hexagon. Fire your lasers when the hexagon is within your the cross-hairs of your laser site; it takes a few blasts to destroy a drone.

Hints

If you find yourself over-steering your ship, remember that unlike many arcade games, you must account for momentum. The further you move the mouse, the faster you will move in that direction; try leveling off the ship as the target approaches your center view.

Having trouble hitting a moving target? Your lasers only fire straight ahead when your ship is moving straight ahead in level flight. When you have targeted an object on your HUD, the cross-hairs of the laser site show your onboard computers best guess of laser impact given your current speed, rate of turn, and distance from target. In general, try to maneuver the target into your laser cross-hairs before firing. You may also want to reduce speed (lower throttle) when in weapons range of a target; this is particularly advantageous when engaged in a dogfight.

Having trouble in general? Most people find the Ground missions easier at first because they do not entail pitch (moving up and down). Once you become accustomed to the controls, the Stellar missions will come naturally. You may also want to reduce mouse sensitivity to increase your control (see Quick Reference Card).

How do I play this thing?

The enemy fleet is invading your sector, and you are the colony's last defense. Destroy the deadly drones before they destroy your base. Defend yourself against the host of enemy fighters unleashed by the invading fleet.

Your ship is equipped with a sophisticated array of weaponry and defenses. Use your radar guided missiles for distant targets, and your laser cannons once you make visual contact. Your energy shields will protect you from collisions and initial hits, but can be drained quickly. A Heads Up Display (HUD) provides visual targeting and status information, while cockpit radar and CRTs provide additional critical feedback.

Stellar and Ground Missions

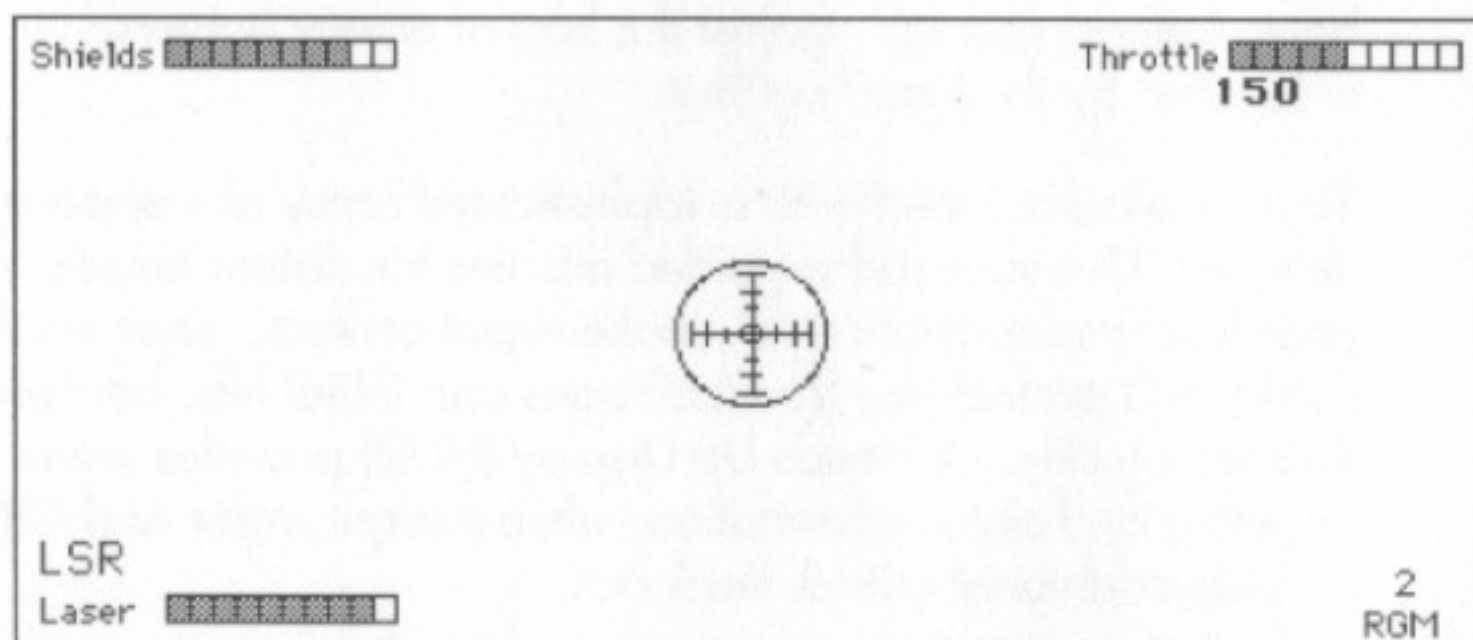
At the start of each round you must choose between a Stellar or Ground mission. Stellar missions involve full space flight simulation which you fly through in three dimensions. Ground missions involve a hover-tank battle over a textured planet surface, in which your ship can move forward, backward, left and right, but not up or down. While the scenarios and their respective enemy fighters differ, the object is still the same: defend your base from the incoming enemy drones.

Each new game starts with three ships, two bases, and two radar guided missiles. An additional missile is earned after completing each level. An additional ship is earned every three levels. Additional bases are awarded for every 2500 points. In the first two levels you must simply destroy the incoming drones. At level three and above you must also defend yourself against enemy fighters, and at higher levels, even the drones shoot back. You score 10 points for each drone you destroy, 100 points for each enemy fighter.

Some players find that Ground missions are easier to navigate at first, as movement is limited to two dimensions. Once you grow accustomed to controlling your ship, Stellar missions should come naturally.

Heads Up Display (HUD)

Your ship super-imposes a HUD over your field of vision to provide you with targeting feedback and other important status displays.



The HUD provides the following status displays:

Shields

Displays the current level of your energy shields. Once your shields are drained, a single collision or weapon hit could destroy your ship.

LSR

Laser

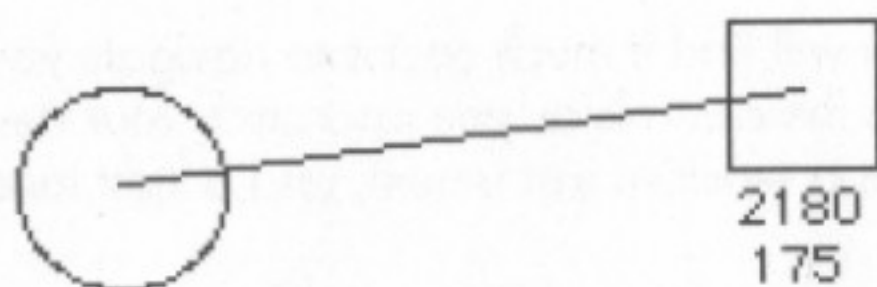
Displays the current energy level of your laser cannons.

Throttle
150

Displays the current level of the throttle. Throttle controls the speed of your ship.

2
RGM

RGM stands for Radar Guided Missiles. This status area displays the remaining number of radar guided missiles.



The small circle in the center of the HUD is your navigational site, which provides a reference point to help you determine direction. The square with the numbers underneath is the target box of an object outside of your weapons range. The top number indicates your distance from the object, and the bottom number indicates your rate of closure. When your weapon selection is set to lasers, a line will connect the center of the target box to the center of the navigational site. Once a targeted object is within weapons range, the target box changes shape to a hexagon. When weapons are set to Radar Guided Missiles, a kill zone (a larger circle) appears around the smaller navigational site.

In addition to the status displays described above, the HUD displays targeting sites which will be described below. Note: you won't realize how important your HUD is until you are forced to live without it. Occasionally an enemy strike can damage your HUD, causing it to fail intermittently. In these situations the best solution is sometimes self-destruction (the escape key).

Navigation

You can navigate your ship using a keyboard, mouse or joystick. The small circle in the middle of the HUD indicates the center of your field of vision, and provides a reference point for aiming your ship towards the desired target.

The Big Mo

Unlike most tank battle simulations and other arcade games, *Eat My Photons!* is built around a 3D flight simulation model. This means your ship flies much like an airplane. And airplanes don't have brakes. And that means your ship has momentum.

If you are having trouble controlling your ship's navigation, you are most likely not compensating for momentum. For example, when you turn the ship to the right you are not just controlling the direction of the ship, but also the rate of turn; the further you push the control to the right, the sharper the turn. Even at a moderate speed, it is very easy to overshoot your target from a sharp turn.

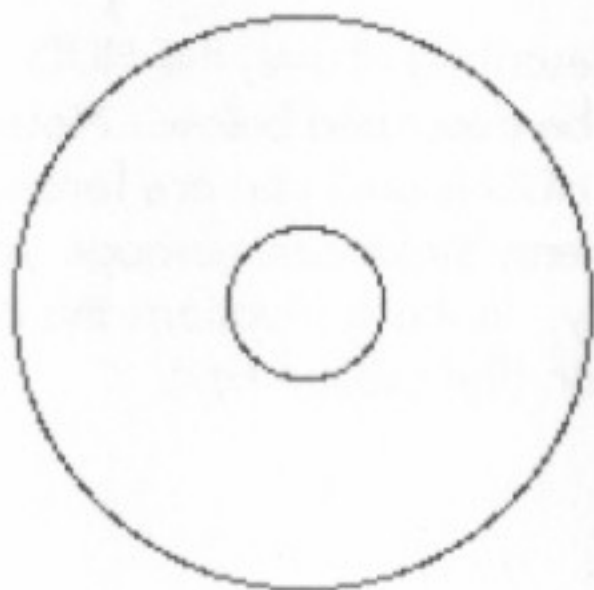
With this in mind, you will find it much easier to navigate your ship if you ease up on the controls as you approach your desired direction. Your ship is a sensitive instrument, and a light touch is often more effective.

Weapons and Defenses

Your ship is equipped with an array of sophisticated weapons and electronic defenses.

Radar Guided Missiles

Your ship is armed with a limited number of Radar Guided Missiles. These smart missiles are designed to automatically track and destroy targets at long range. Your ship is equipped with three radar guided missiles at the start of the game. An additional missile is earned by completing a level.



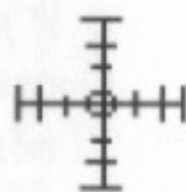
When you select guided missiles as the current weapon, a large circle appears on the HUD around the smaller directional site. This is the kill zone. Maneuver your ship until the target box is within the kill zone, and fire. The missile's onboard guidance system will track and destroy the target.

When correctly used, a radar guided missile will always destroy a targeted drone. Enemy fighters can sometimes avoid incoming missiles by releasing chaff and utilizing other evasive tactics.

Laser Cannons

Because radar guided missiles are so rare and valuable, your laser cannons will usually be your weapon of choice, and are generally your only effective weapon against targets within visual contact. Laser cannons are drained incrementally with each firing. You must fly through an energy sphere to recharge.

When laser cannons are selected, the targeting cross-hairs are displayed on the HUD. Lasers are fixed, and cannot be aimed independently of the direction of your ship. When an object is targeted, your onboard computers control the position of the cross-hairs on the HUD according to your current speed, rate of turn, and distance from target. This



represents an approximation of where lasers would strike if they were fired at that particular moment in time. Note that the crosshairs only fall within the center of the navigational site when ship is flying level and straight — a rare occurrence in the midst of a dogfight.

It takes several laser blasts to destroy a drone, which is essentially unshielded. Enemy fighters are protected by energy shields similar to your own. Shields glow blue when they are hit; with successive strikes the shields glow fainter as they are drained until eventually the ship is destroyed. Note that enemy fighters are smart; when their shields draw low, they will attempt evasive maneuvers until they have had time to regenerate their shields.

Energy Shields

Your ship is equipped with defensive energy shields to protect you from damage caused by collisions and enemy weapon strikes. Your shields glow blue and emit a noticeable buzz when they are struck. Each strike incrementally drains your shields. You must fly through an energy sphere to recharge.

Chaff

When your ship's onboard computers detect that an enemy radar guided missile has locked you on target, a warning is displayed on the HUD, showing the time until impact. Releasing chaff may confuse the incoming missile's radar, allowing you to evade the strike.

Energy Spheres

Pulsating blue energy spheres are randomly distributed throughout the field of play in both scenarios. Each time you fly through an energy sphere, up to one third of laser and shield reserves will be recharged.

Cockpit Radar and CRTs

The cockpit contains two radar displays. The rectangular display on the right is a top down radar view of the objects within range. The circular radar in the center of the cockpit is a three dimensional view with your ship at the center.

Objects on the radar displays are distinguished by color.

Gray: Incoming drones

Blue: Your base
Green: Energy spheres
Red: Enemy fighters

While you may toggle between various radar ranges by using the R key, targeting any object automatically resets the radar so that the target falls within its range.

In addition to the two radar displays, there is a CRT on the left hand side of the cockpit which displays the following information:

Line 1	Current radar range
Line 2	Drones remaining
Line 3	Ships remaining
Line 4	Bases remaining
Line 5	Current Level

Save and Load Game

You may save your current game by clicking on the Save button from the Mission screen. You will be prompted to name the saved file and select location before saving.

You may load saved games by selecting Load from the Title screen. You will be prompted to select the appropriate file.

Keyboard, Mouse and Joystick Controls

Eat My Photons! can be controlled entirely from the keyboard, or by a combination of the keyboard and a mouse or joystick.

Radar Controls

Radar controls are used to target objects on the Heads Up Display (HUD), and to manipulate settings of the two cockpit radar displays.

- D Target enemy fighter. If there is more than one enemy fighter within radar range, this targets the closest fighter which is currently targeting you.
- G Target drone closest to base. Obviously, one of the most commonly used commands.
- F Target drone closest to you. Sometimes it is more efficient to pick off drones in your immediate vicinity than to chase widely scattered drones based on which is closest to your base.
- E Target closest energy sphere.
- B Target base.
- X Clear radar lock. No objects will be targeted.
- Z Single track target. The cockpit radar displays will only track the single object currently targeted on the HUD.
- T Lock on next target. Onboard computer automatically selects next target based on parameters such as distance, speed and type of craft.

- R Rotate radar range. Rotates range tracked by cockpit radars between units of 2, 5, 10, and 20. Range is automatically adjusted to accommodate the range of the current target.
- M Top down radar on/off.

Weapons & Defense

- W Select weapon: laser or radar guided missile. Weapon site changes to reflect current weapon selection.
- C Release chaff. Chaff can confuse guidance system of incoming smart missiles.

Throttle

- 1 to 0 Adjust throttle, 10% to 100%. Throttle controls the speed of your ship.
- ~ Idle engines. Essentially reduces the throttle to zero. Note, due to momentum, your ship does not actually come to a stop.

Miscellaneous Controls

- [Turn mouse sensitivity down. Try reducing mouse/joystick sensitivity if you are having trouble navigating the ship.
-] Turn mouse sensitivity up.
- < Show left cockpit view. Only shows left view while you continue to hold the key down.
- > Show right cockpit view. Only shows the right view while you continue to hold the key down.
- P Pause the game. Hit the key again to continue.
- escape Eject ship and self-destruct.

Keypad & Arrow Keys

Most of the keypad and arrow keys provide functions duplicated elsewhere on the main keyboard.

clear	Weapon select (lasers or smart missiles).
=	Target drone closest to base.
/	Target drone closest to you.
*	Target closest energy sphere.
-	Adjust throttle down (slower).
+	Adjust throttle up (faster).
enter	Fire.
.	Release chaff.
7	Left cockpit view.
9	Right cockpit view.
← or 4	Turn left.
→ or 6	Turn right.
↑ or 8	Space: down. Ground: forward.
↓ or 2	Space: up. Ground: back.

Mouse and Joystick Control

Eat My Photons! supports the MouseStick II from Advanced Gravis, and other compatible devices. Joysticks function much as they would in a real plane. During Stellar missions, pull back on the stick to go up, push forward to down; left and right work as expected. During Ground missions, push forward on the stick to go forward and pull back on the stick to go backwards.

You may also use either a mouse or trackball to control direction. During the Stellar missions, the mouse works differently than a joystick. Move the mouse backwards to go down, and forwards to go up. If you think about it, this makes sense: you are moving

the ship, not the objects in your field of vision. During Ground missions the mouse functions similar to the joystick; move backwards to go backwards and forwards to go forwards.

Click the mouse button to fire weapons.

Other Commands

Click the mouse button or press the escape key to skip the opening title sequence.

Press the spacebar to skip any screen shatter effect.

Customizing Settings

Click on the Setup button from the Title or Mission screen to go to the Setup window.

From this window, most of the games settings can be viewed, changed and stored. You will adjust settings to reflect your preferences and to improve performance on a slower 68030 based Macintosh.

Scenery

These settings control several of the background graphics and visual effects. Turning these options off generally improves performance on slower machines.

Background Art

The various planets and celestial objects in the Stellar missions, and the mountain ranges in the Ground missions are static bitmap graphics designed to help set the scene, and to provide a visual frame of reference as to ones direction and position. Turning Background Art off could yield minor performance gains, particularly on slow machines.

Ground Textures

Ground missions can display full ground texturing as your ship moves over the surface of the planet, providing a heightened sense of realism and visually indicating speed and direction. Ground Textures is an extremely computationally intensive feature; turning it off should dramatically improve performance of Ground missions.

Stars

Stellar missions can display a random star field of variable density to further enhance the visual feel of the game. You may choose between two densities, Lots or Less stars, or turn this option off entirely. Star density does not greatly effect game performance.

General

These settings control various visual effects which occur during both Stellar and Ground missions. Turning one or more of these settings off will improve performance.

Space Debris

This controls the unidentifiable specks of space schmutz which randomly fly towards and by your ship, helping to indicate motion and speed.

Blast Shrapnel

One of the things that makes our explosions look so cool are the chunks of debris that fly off an enemy target before and while it explodes.

Cockpit Animations

Okay, we admit it. Some of the cockpit animations don't actually do anything except look good, particularly in the side cockpit views. You can turn these nonessential effects off to squeeze out a little more performance.

Sounds

All music and sound effects make demands which somewhat diminish performance and require additional RAM. If you run with a memory partition below 3 MB, some of these features may be unavailable.

For optimal performance, we strongly recommend that you have Apple's Sound Manager 3.0 or later installed.

Music

Eat My Photons! includes an original musical score composed specifically for the game by composer Neil Radisch. Music is context sensitive, changing according to game conditions.

Engine Sound

This option produces a continuous engine noise, the volume increasing and decreasing according to the current throttle speed.

Sound Effects

These include weapons firing, explosions, shield activity, and cockpit warnings.

Input Device

This option controls which input device you will be using to control your ships direction (pitch and yaw).

Joystick

Eat My Photons! supports the MouseStick II from Advanced Gravis and other compatible devices. Joysticks function much as they would in a real plane. During Stellar missions, pull back on the stick to go up, push forward to down; left and right work as expected. During Ground missions, push forward on the stick to go forward and pull back on the stick to go backwards.

Keyboard

You may use the keyboard's arrow keys or numeric keypad to control direction. Please refer to the quick reference card on the back of this user guide for specifics.

Mouse

You may use a mouse or trackball to control direction. During the Stellar missions, the mouse works differently than a joystick. Move the mouse backwards to go down, and forwards to go up. If you think about it, this makes sense: you are moving the ship, not the objects in your field of vision. During Ground missions the mouse functions similar to the joystick; move backwards to go backwards and forwards to go forwards.

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QUICK REFERENCE

Radar Controls

D	Target enemy fighter	X	Clear radar lock
G	Target drone closest to base	Z	Single track target
F	Target drone closest to you	T	Lock on next target
E	Target closest energy sphere	R	Rotate radar range
B	Target base	M	Top down radar on/off

Weapons & Defense

W	Select weapon
C	Release chaff

Throttle

1 to 0	throttle 10% - 100%
~	idle

Miscellaneous Controls

[Mouse sensitivity down
]	Mouse sensitivity up
<	Left cockpit view
>	Right cockpit view
esc	Eject / Self-destruct
P	Pause the game

Keypad & Arrow Keys

