

PERSONAL SOFTWARE™
SPACE WARP

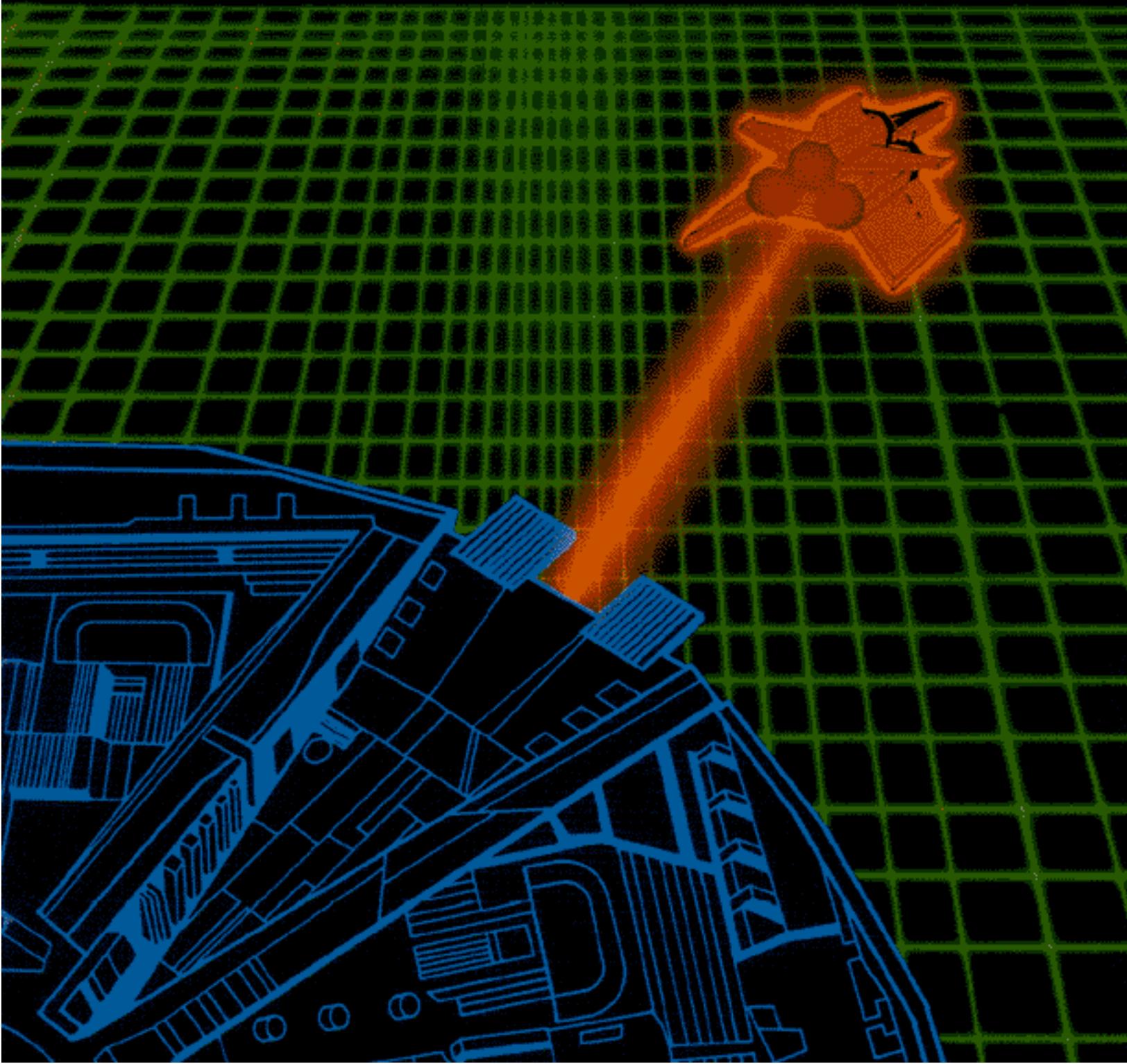
Radio Shack

TRS-80

**MICRO
COMPUTER
SYSTEM**

GAMES

Catalog Number 26-1912



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SPACE WARP

A Real Time Action Game
For the TRS-80 Level I and II
4K RAM

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Introduction

Space Warp is a Z-80 machine language computer game with real time action and exciting graphics and sound effects. The program runs in 4K or more RAM on either a Level I or Level II TRS-80, and requires no additional equipment, (although an amplifier may be added for sound effects). As captain of the Endeavor and champion of the United Planet System, your goal is to wipe out the Jovian invasion force, which threatens the galaxy, before the Jovians destroy all the United Planet System bases or the Endeavor.

You seek out the Jovians with your scanners (or you may receive S.O.S. messages from bases under attack), and do battle with them using your Deflectors, Masers and Triton Missiles. Because the game is in real time, the Jovians are constantly on the move, and so is the Endeavor: With practice you can fire your weapons while moving and evading enemy shots. Space Warp demands both sharp wits and fast reflexes, and has ten levels of play to challenge you time after time as you master the game.

Since Space Warp is a Z-80 machine language program, the procedures for loading it are slightly different from those for regular BASIC programs. Also, Space Warp can only be loaded from the supplied cassette; it cannot be copied onto another cassette using the BASIC CSAVE command or the machine language monitor, nor can it be reliably copied using two tape recorders. So you should treat your Space Warp cassette with care and read these instructions carefully before you begin. To ensure that you can load Space Warp, the program is recorded twice on the Level I side and twice on the Level II side. Make sure that the correct side is 'up' in your cassette recorder, and follow the appropriate procedures below.

Once Space Warp is loaded, you may fight as many battles with the Jovians as you wish. You will find, however, that neither the BREAK key nor the Reset switch at the back of your keyboard has the usual effect. To load or type in another program, you must first turn power off on your TRS-80 and then turn it on again. (On Disk BASIC systems, pressing the Reset switch will boot the DOS.)

Level I

Set the volume on your cassette recorder at about 7½ - 8½, and test the volume setting by loading a Radio Shack supplied tape (Black Jack, etc.; your own tapes may be slightly different). After you have verified that such a 'standard' program will load, insert your Space Warp cassette (Level I side up), and rewind if necessary to the beginning of the tape.

Now type `C L O A D` (followed by the `ENTER` key) and wait. You should see two flashing asterisks in the upper left corner of the screen. Do not be surprised if the asterisks hold steady and flash only occasionally; this is normal for a machine language program. (If the asterisks never change, the volume is probably too low; raise the volume slightly and try again.)

If all is well, the Space Warp title and copyright notice will appear on the screen. Go on to the section entitled 'Beginning Play'.

If you get the message WHAT?, invalid data has been read and a 'checksum error' has occurred. This usually means that the volume setting on your recorder is too low; raise the volume slightly and try again. You can also try loading the second copy of the program starting from the point where your cassette player has stopped. If this doesn't solve the problem, you should clean and/or demagnetize your recording heads. With some effort, you should be able to load Space Warp again and again without any problems.

Level II

Set the volume on your cassette recorder at a about 5½-6½, and test the volume setting by loading a Radio Shack supplied tape (Black Jack, etc.; your own tapes may be slightly different). After you have verified that such a 'standard' program will load, insert your Space Warp cassette (Level II side up) and rewind if necessary to the beginning of the tape.

Now type **S Y S T E M** (followed by the **ENTER** key). You should see the *? prompt of the Level II machine language loader. Now type **S P W A R** (followed by **ENTER**). You should see two flashing asterisks in the upper right corner of the screen. Do not be surprised if the asterisks hold steady and flash only occasionally; this is normal for a machine language program. If you don't see the asterisks at all, the volume setting is probably too high; lower the volume slightly and try again. If the C appears in the upper right corner of the screen, a 'checksum' error has occurred and the volume is probably too low; raise the volume slightly and try again.

If all is well, the Space Warp title and copyright notice will appear on the screen. Go on to the section entitled 'Beginning Play'. If you still obtain a C (checksum error), try loading the second copy of the program starting from the point where your cassette player has stopped. If this doesn't solve the problem, you should clean and/or demagnetize your recording heads. With some effort, you should be able to load Space Warp again and again without any problems.

Beginning Play

Once you have successfully loaded Space Warp and the program title and copyright notice has appeared, Space Warp will ask you:

WHAT LEVEL DO YOU WISH TO PLAY (1-10)?

Type a number from 1 to 10, followed by the **ENTER** key, to choose the level of difficulty at which you want to play. The higher the level, the more Jovians there will be and the more rapid and powerful their attacks will be. Level 1 is very easy (you will have to fight about 8 Jovians), while level 10 is extremely difficult (about 80 Jovians) and can only be won occasionally by the most experienced players. After you press the **ENTER** key, Space Warp will give you your mission, for example:

YOUR MISSION: DESTROY THE FLEET OF 37 JOVIAN SHIPS BEFORE THEY DESTROY THE 9 UNITED PLANET SYSTEM BASES. GOOD LUCK!

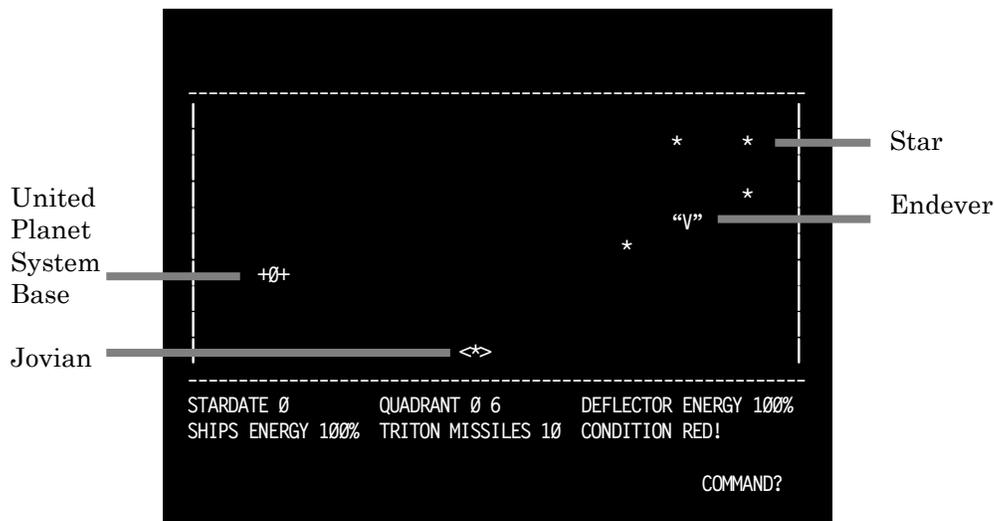
Your goal is to destroy all the Jovians while losing as few bases as possible, in as short a time as possible. In the game, time is measured in stardates; a stardate is equivalent to one minute in `real time`.

If you manage to destroy all of the Jovians before they destroy all of the bases of the Endeavor, Space Warp will give you a score. The score is based on the fraction of bases destroyed and the number of Jovians destroyed per stardate. It will be between 1 and 255. The score does not take into consideration the level of difficulty at which the game was played. When the game is over, you will have an opportunity to play another game, simply by pressing the **Y** key in response to the question CARE TO PLAY AGAIN?

When you are ready for action, press the **ENTER** key, and the Space Warp screen will appear.

Screen Display

The universe of Space Warp is an 8 by 8 matrix of divisions known as quadrants. (No one knows why they are called quadrants, since there are 64 of them.) Your screen display normally depicts the situation in the quadrant where the Endeavor is currently located, and this is where the action takes place. See the screen display photo below. Inside a quadrant at any given time there may be the Endeavor (symbolized by "V"), a United Planet System base (shown as +0+), and any number of Jovians (shown as <*>) and stars (shown as *). Besides these elements, which you can see on your screen display, a quadrant may contain a black hole. A black hole is an invisible danger, which can only be detected by firing one of your weapons. If your Masers or Triton Missiles are obstructed by something, but nothing is visible, you are near a black hole. If your ship should fall into a black hole, it will be lost forever. When you first enter a quadrant, you will be warned if there is a black hole present in that quadrant, unless your scanners are rendered ineffective by a magnetic storm (see section entitled `Scanners`).



Scanners

The current quadrant may or may not contain any enemy Jovian ships. (If there are Jovians, they will turn to fire at you unless you move very quickly to attack and/or evade their shots.) If no Jovians are present, they will be prowling around other quadrants of the galaxy, preparing to attack some base. Your job is to seek out and destroy the Jovians before they have chance to attack. For a look at the entire galaxy, press the number **3** key in response to **COMMAND?** The current quadrant display will disappear and the galaxy map will be displayed. (To return to the current quadrant display, press **ENTER**.)

The 64 quadrants form a grid of 8 columns by 8 rows. The columns and rows are each numbered from 0 to 7. A particular quadrant's coordinates are given as column first, row second. The current quadrant is located on the galaxy map where the letter **E** shows the location of the Endeavor. (This quadrant's coordinates are also given at the bottom of the current quadrant display.) Your scanners will cover the eight quadrants immediately surrounding the quadrant containing the Endeavor; the digit appearing in each of these surrounding quadrants on the galaxy map tells you the number of Jovians in that quadrant. All of the United Planet System Bases are also in constant communication with the Endeavor. Each quadrant, in which there is a base will contain the letter **B** on the galaxy map, followed by a digit indicating the number of Jovians in the base's quadrant. If an **M** appears in a quadrant on the galaxy map, there is a magnetic storm in that quadrant, which disrupts the operation of the scanners. A quadrant with a magnetic storm may contain Jovians, but you will not be able to detect this unless and until you enter that quadrant. Moreover, if you enter a quadrant with a magnetic storm, you will receive no warning if there is a black hole in that quadrant. (Both black holes and magnetic storms are rare. You will probably never be in a quadrant with both.)

Hyperdrive

You move from quadrant to quadrant with your Hyperdrive. Once you reach a quadrant, you can move about within it using your Ion engines (see below). To use your Hyperdrive, simply press the number **2** key in response to **COMMAND?** Space Warp will ask:

SET COURSE FOR?

You type just two digits, first the column coordinate, then the row coordinate of the destination quadrant to which you want to move. You need not, and should not press the **ENTER** key (doing so will abort the Hyperdrive command). If you wish to backspace and retype one of the digits, press the **CLEAR** key. At Hyperdrive speeds (i.e. instantly), the Endeavor will move to the new quadrant, and a screen display of the new quadrant will appear. Watch out for enemy Jovians as you enter the quadrant! As you come out of Hyperdrive, your ship will stabilize its position at a random location in the new quadrant, whereupon you can resume movement using your Ion engines.

Ion Engines

You can move the Endeavor around in the current quadrant by using your Ion engines, which are always engaged unless they have been damaged and are currently inoperable. To move your ship up, down, left or right, press one of the **arrow** keys on your TRS-80 keyboard. If you press and hold down one of the **arrow** keys, it will automatically 'repeat' and your ship will continue its movement in any one of the four directions. You can move diagonally by pressing both a left or right and an up or down **arrow** key. Now is a good time to practice moving your ship around on the screen using the arrow keys (unless the Jovians have crept up on you and begun firing at you while you are reading this.) You can press the **arrow** keys at any time, even while in the midst of entering another command, e.g. to fire one of your weapons. If you are fast enough you can use them to dodge enemy Maser fire. Especially when you are moving quickly, you must be careful not to hit a star or a black hole. If you do your ship will be destroyed!

Sustaining Hits

The enemy Jovians can move and fire at any time. They may attempt to dodge your fire, hide behind a star, maneuver to attack a base or the Endeavor, or escape to another quadrant. If a Jovian attacks a base in another quadrant, the base will send you an S.O.S. message, which will flash, at the bottom of the screen. You should then use your Hyperdrives (if they are operable) to move to the other quadrant and attempt to save the base. If you do not act in time, the base will be destroyed.

When a Jovian fires and hits the Endeavor, your ship's energy will be decreased and some of your other systems may be damaged. When your ship's energy falls to zero, you will be destroyed. If one of your ship's systems is extensively damaged, it will become inoperable. You can check the damage to your systems by asking for a DAMAGE AND STATUS REPORT: Simply press the number **1** key in response to COMMAND? The report will tell you the following (for example):

7 JOVIANS LEFT	9 BASES LEFT
DAMAGE	
ION ENGINES	21 %
HYPERDRIVE ENGINES	19%
SCANNERS	30%
DEFLECTORS	18%
MASERS	10%

Press the **ENTER** key to return to the current quadrant display. If your Ion engines or Hyperdrives are sufficiently damaged, you may be unable to move about in the current quadrant or warp to another quadrant; you will have to wait helplessly as the Jovians attack you or the United Planet System bases. If your Masers are sufficiently damaged, you will be unable to fire unless you have a Triton Missile left (see below).

You can partially defend yourself against enemy fire by devoting energy to your deflectors. The higher your deflector energy, the more effective your deflectors are in dissipating the impact of Jovian fire, and the less your ship's energy will be reduced by sustaining a hit. If you are hit with your deflector energy at zero, you will be destroyed. However, your deflectors also operate in the opposite direction and will reduce the energy of your masers. 50% deflector energy will dissipate 1/3 of the energy of your own maser fire, and 100% deflectors will dissipate 2/3 of your masers. To change your deflector energy, simply press the number **4** key in response to **COMMAND? Space Warp** will ask you:

% ENERGY TO DEFLECTORS?

Type a number from 0 to 100, and then press the **ENTER** key. To backspace and retype the number, press the **CLEAR** key. Your current ship's energy and shield energy are constantly displayed at the bottom of the current quadrant screen display.

The Endever is constantly repaired by its own repair crews; however, this is a very slow process. If you need immediate repair you can dock at a United Planet System base. To dock you must move the Endever directly above or below a base; when you are in position the message **ENDEVER DOCKED** will be displayed.

Masers and Triton Missiles

To destroy an enemy Jovian in your current quadrant, you must use your Masers and/or Triton Missiles. Masers can be fired repeatedly. The power of your masers is variable and depends on the energy devoted to your deflectors, as discussed above. To obtain the maximum energy from your Masers you must lower your deflectors long enough to fire – at the risk of a Jovian hit while your deflectors are down. Even at maximum energy, masers have limited power, and you will usually have to fire several times to destroy a Jovian. The number of shots required is based on your maser energy and the distance between you and the Jovian. The same is true of Jovian fire, so watch out for a Jovian shot at close range!

To fire your masers, press the number **5** key in response to **COMMAND? Space Warp** will respond (for example):

MASERS AT 67% DEGREES?

Type an angle from 0 to 360, followed by the **ENTER** key, to aim your masers at the Jovian, and watch to see if your shot is high, low or on the mark. Use the **CLEAR** key to backspace and retype a number. Angle 0 is horizontal to your right; 90 is straight up; 180 is horizontal left; and 270 is straight down (see the Triton Missile Compass in the 'Command Summary').

Triton Missiles are aimed and fired like masers, but they are unaffected by your deflectors, and one missile will destroy a Jovian anywhere in the current quadrant. However, you have only ten missiles, and you cannot replenish your supply. To fire a missile, press the number **6** key in response to **COMMAND?** Space Warp will ask:

DEGREES?

Again, type an angle from 0 to 360, followed by the **ENTER** key, to aim your missile. The **CLEAR** key can be used to backspace and retype the angle. Like masers, Triton missiles are obstructed by stars and black holes. The Jovians will sometimes hide from your fire by ducking behind a star, and you may do the same to avoid their shots temporarily. If you are careless or malicious, your own masers and Triton missiles will, if so aimed, destroy your own bases.

If you are near the end of a game and are in the same quadrant as the last few Jovians, but too weak to destroy them before they destroy you (or if you just want to give up), you can cause the Endeavor to self-destruct. Simply type the number **7** key in response to **COMMAND?** Space Warp will ask:

CONFIRM?

If you want the Endeavor to self-destruct, type the confirmation code **1 2 3** and press the **ENTER** key. (If you pressed **7** by mistake, type any other number followed by **ENTER**). This will destroy the Endeavor and all Jovians in the current quadrant. If, after the destruction, all Jovians have been eliminated, you will win with no penalty. If you gave up without fighting to the bitter end, the United Planet System will be conquered by the remaining Jovians.

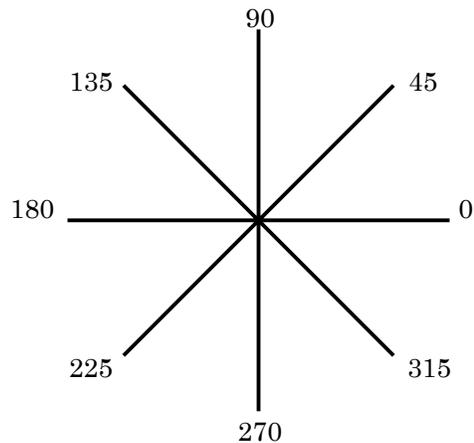
Sound Effects

Sound effects accompany the graphics explosion on the screen whenever a Jovian, United Planet System base, or the Endeavor is destroyed. To hear the sound effects, simply plug your cassette output cable (the one with the larger gray plug at the end) into an appropriate input jack on your favorite audio amplifier and speaker. If you don't already own such an amplifier, a good low-cost choice is a Microsonic amplifier available at your local Radio Shack store. Experiment with the volume and tone controls on your amplifier for the best results.

Command Summary

WHAT LEVEL DO YOU WISH TO PLAY (1-10)?	Type a number from 1 (easiest) to 10 (most difficult), followed by ENTER .
1 DAMAGE REPORT	Press ENTER to return to quadrant display.
2 HYPERDRIVE	Press digit (0-7) for column, then digit (0-7) for row of destination quadrant.
ION ENGINES	Press arrow keys to move around in the current quadrant.
3 SCANNERS	Press ENTER to return to quadrant display.
4 DEFLECTORS	Type Deflector energy percentage (0-100) followed by ENTER .
5 MASERS	Type angle (0-360) followed by ENTER .
6 TRITON MISSILE	Type angle (0-360) followed by ENTER .
7 SELF-DESTRUCT	Type confirmation code 1 2 3 followed by ENTER .

NOTE: Press the **CLEAR** key to backspace and retype a digit. Press the **BREAK** key to get out of a command and return to the quadrant display.



TRITON MISSILE COMPASS

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NOTE: Good data processing procedure dictates that the user test the program, run and test sample sets of data, and run the system in parallel with the system previously in use for a period of time adequate to insure that results of operation of the computer or program are satisfactory.

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