DYNACOMP

ALPHA FIGHTER

ATARI

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DYNACOMP, Inc. 1427 Monroe Avenue Rochester, New York 14618

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INTRODUCTION:

ALPHA FIGHTER consists of two different programs, either of which can be selected from a menu which is displayed during program start-up. To load the cassette version of ALPHA FIGHTER, insert the cassette, type CLOAD and then depress the PLAY key on your program recorder. When loaded, type RUN. The disk version can be booted directly by inserting the disk into the disk drive and then turning on the computer. The file name on the disk is "ALPHA".

GAME PLAY:

At program start-up, you are given the choice of playing ALPHA FIGHTER or ALPHA BASE. Press the "SELECT" key for FIGHTER or the "OPTION" key for BASE. Both programs require the use of the joystick. Make sure that it is inserted into slot number one. While the menu is still on the screen, press the trigger on the joystick and see what happens to the Alpha Fighter which is buzzing the DYNACOMP logo.

ALPHA FIGHTER:

The object of this game is to destroy the oncoming aliens. Use the joystick to maneuver your Alpha Fighter up or down in line with the attacking alien ship. When ready, press the trigger to unleash a photon pulse. If you hit the alien ship, you will be awarded points based on the distance to the target; the greater the distance, the higher you will score. As your score increases, the alien vessels will get smaller and smaller, making them more difficult targets. If you miss, you will not be able to fire another photon pulse until the first pulse has cleared the screen. If the alien ship gets past your Alpha Fighter, your score will decrease by 50 points. If you collide with the alien ship, the game will be terminated. Note that this is the only way in which to end the game!

* Written by Douglas McFarland, Fairport NY.

ALPHA BASE:

As a base station, your object is to destroy the alien ships as they pass overhead. As in ALPHA FIGHTER, use the joystick to control your position, in this case, left or right along the surface. Use the trigger to fire your photon pulses. You will not be able to fire again until the previous photon pulse clears the screen. You may have enough time however, to move the base further to the right in order to take another shot at the aliens. As your score increases, the ships will get smaller and will start flying faster. You will be awarded points based on the distance of the target when you scored a hit. The greater the distance, the higher the score. You will be allowed five misses. Each miss will cost you 50 points. The sixth miss will terminate the game.

DYNACOMP hopes that this package will provide you with hours of entertainment, and possibly provide a study in the use of sound and graphics for the Atari Computer. For those users interested in the technical aspects of these programs, the following is a description of the programming techniques used in ALPHA FIGHTER.

PLAYER MISSILE GRAPHICS:

Line 5010: Caluclate player missile (PM) base address. Variable AA is set to RAM top minus 24 pages. This allocates space for the PM area below the graphics screen. Poke 54279,AA sets this address into the PM handler and 256*AA converts the address to a full decimal address.

Line 5015: Clears 5 players (128 bytes each) starting at base+384.

Line 5016: Sets single line PM resolution (POKE 559) and enables PM graphics (POKE 53277).

Lines 5600-5900: This subroutine loads the player configuration into arrays C, T, D and E.

Line 5019: Sets PM0 to double size.

Line 5030: Sets X and Y coordinates and POKE 704,133 sets PM0 color to blue.

Line 5040: Loads array C into the PM graphics area ('BASE' offset by 512+Y coordinate).

Line 5060: Sets the horizontal position and brings the ship into view.

Subroutine 5200-5330: Sets up missile color to maximum brightness.

Line 5410: Sets the Alien's color (POKE 707) and playing field priorities (POKE 623).

Line 5415: Clears the previous ship from the PM area.

Line 5420: Selects a new Y coordinate.

Line 5430: Sets horizontal position for Alien.

Line 5435: This is a scoring "switch" which will draw a different ship (upper 6 elements of array T) if the score is greater than 300.

Lines 5440 or 5500: Load the Alien ship into the PM graphics area.

Line 5452: Set the ship's direction (-1 = up), (1 = down), (0 = straight).

Line 5453: Sets Alien ship to normal size.

Line 5454: "Rolls dice" and determines if the Alien ship size will be double.

Line 5455: If the Y coordinate is less than 50, then the direction is set to down.

MOVING PM GRAPHICS UP AND DOWN:

Line 31000: The variable Z is set to the starting address of a machine level subroutine that handles the PM up/down movement. This routine is very useful for quickly moving PM characters. It is called with the following command:

```
X = USR(ADDRESS,PMBASE+OFFSET+Y,BYTES,DIRECTION)
```

where X is any dummy variable; ADDRESS = machine subroutine address (in this case Z); PMBASE is the base address of PM graphics area; OFFSET = player area (Missiles=384, Player0=512, Player1=640, Player2=768 and Player3=896); Y = current Y coordinate; BYTES = total number of bytes to be moved; DIRECTION: (0 = UP, 1 = DOWN).

Line 412: If the joystick is in the up position, then 8 bytes of PM0 at Y coordinate 'MY' is moved up.

COLLISION DETECTION:

Line 205: Detect a player to player collision.

Line 206: Detect a player to missile collision.

These two addresses are latched when a collision occurs. They are reset by POKEing 53278 with any value (line 2035).

POINTS OF INTEREST:

The "HA HA HA" sound routine starts at line 30005. The use of the "SELECT" and "OPTION" keys is illustrated at lines 15040 through 15060.