

holosphere

the advocate of holographic science, technology and art

Atari Unveils Cosmos, A Holographic Game System



"Cosmos - The Third Dimension - is a revolutionary new game system that combines breathtaking 3 Dimensional Holoptic images, sophisticated LED game play and the most innovative sound effects available in an electronic game" (photo and caption courtesy Atari, Inc.).

NEW YORK - Atari, Inc., the electronic game maker, has wasted no time putting to work the exclusive holography license it acquired last year (see *holosphere*, November 1979). Cosmos,[™] The Third Dimension,[™] a programmable game system employing holographic imagery, was unveiled to a crowd of several hundred at a press conference here in February.

For Cosmos, holography (called "Holo-[™]tics" by Atari to avoid the generic term holography) provides changing scenes against which a game's action is displayed. Eight game cartridges have thus far been produced for the system. Some are versions of existing Atari home video games, such as the well-known Asteroids,[™] and Space In-

vaders. The others are: Superman,* Football, Road Runner,** Destroyer,[™] Basketball and Outlaw.[™]

The core components of the Cosmos system are the game console (see photo) and the cartridges containing Benton white-light transmission holograms with a partially silvered backing (to permit front-lit reconstruction) and programming. During play, the light-emitting diodes (LED's) used to display the action are visible through the hologram. Two small lights in the console alternately illuminate the hologram slightly different angles, playing back either

*Trademark of DC Comics, Inc., 1979.

**Indicates trademark of Warner Bros., Inc.

image. Sound effects are included.

The multi-image holograms serve two general functions in the eight games. In Space Invaders, for example, alien spacecraft attack a city against the background of a 3D flying saucer reminiscent of the ship in the film "Close Encounters of the Third Kind." When the player-operated gun defending the city is destroyed by an alien bomb, the image changes to show a jeering and vaguely reptilian attacker.

The second function - "more effective," our *holosphere* player said - is to double the size of the playing field. In Football, the player sees two LED football teams on half of a three-dimensional playing field. Whenever the ball moves past the 50-yard line, the holographic image switches to display the other half of the field. The basketball game functions similarly.

The units on display at the press conference were described as prototypes by Atari representatives. The game cartridges contained holograms recorded on a emulsion with glass substrates and a mirror backing, similar to display holograms made by some artists. They were produced in Atari's own facility. For mass production, however, it is expected that Atari will employ an embossing process in which a master hologram will be used to impress a diffraction pattern onto plastic.

A tantalizing question for holographers concerns how the holograms will be mass produced. At present, the only regular producer of embossed display holograms is Light Impressions, run by holographer Steve McGrew (see *holosphere*, November, 1979). McGrew produces embossing masters and then works with an embossing company to make the impressions. Although Atari representatives acknowledged McGrew's work, they did not indicate whether they would function similarly, develop their own embossing capability or have the entire production done out of house.

In addition to introducing formally holography to the toy/game business, Cosmos will also help to fulfill another goal for this Warner Communications, Inc., company. When Cosmos becomes available at Christmas time this year, the console will cost about \$80 and the game cartridges about \$10 each. It is hoped the system will appeal to consumers who cannot afford the Atari Video Computer system, nearly three times as expensive.