Office of The United States Commissioner General, Canadian World Exhibition, Montreal, 1967, 800 Victoria Square, Suite 2022, Montreal 3, P.Q., Canada.

SPACE FOOD (CASE I)

The three packages of Apollo food shown on Platform 3 represent one day's menu for one of the astronauts making the trip to the moon.

The Apollo food is packaged in "three meal" packages per astronaut.

Each astronaut consumes all of the food that is coded one color (the colored string that holds the three meals together), then the next day he eats the food coded with another colored string. There are four different daily packages (four colored strings), thus the daily package repeats every five days. Breakfast, lunch, and dinner is marked A, B, and C, respectively. The packages are also color coded, with a patch of velcro, which identifies the astronaut the food belongs to. He eats the food marked with his color only.

Menus for the Apollo mission will provide about 2,800 calories per crew member daily.

There are two basic types of food: "rehydratable -- those to which water is added before eating; and bite-size foods -- those which are eaten directly from the package in bite-size cubes.

Bite-size foods are wrapped in plastic bags. Foods which have a tendency to crumble are dipped in a special starch-like substance that prevents crumbs but allows astronauts to enjoy familiar food textures. Foods such as cake, enriched cereals with fruit, toast, bacon squares and sandwiches are typical of bite-sized foods.

The "rehydratable" foods are packaged in a flexible plastic container from which the food can be squeezed directly into the mouth.

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To eat this type of space food from the zero-gravity containers, water is introduced into the container through a special valve by means of a pistol-like probe. The valve prevents water from escaping into the air-space during the addition of water or while the probe is being withdrawn. The astronaut kneads the mixture for the time noted on package instructions, then squeezes food into his mouth through a feeding tube. When he has finished the food, the astronaut breaks a germicide pill into leftover food to retard putrefaction and the container is placed in a waste storage space. If he eats part of the food and wishes to finish later, the personal colored "velcro" tab allows him to place the bag solidly on the wall of the spacecraft on a mating "velcro" tab.

Four layers of plastic are utilized in the space food "suit". One layer is food compatible. Another layer provides burst strength while a third is an effective vapor barrier. The final layer is heat-sealable allowing the package to be tightly closed.