International Space Station

The International Space Station (ISS) will become operational on a full-time basis with a crew of three. Later, the crew size will grow to a maximum of seven people. The crew will reside in the Habitation Module (HAB). Food and other supplies will be resupplied every 90 days by the Multi-Purpose Logistics Module (MPLM). The MPLM is a pressurized module carried in the Space Shuttle payload bay that is used to transport materials and supplies. The food system described here is for the completed ISS and will be considerably different from the Space Shuttle food system. But until 2004 when the HAB module is launched, ISS residents will utilize a joint U.S.-Russian food (Shuttle-*Mir*) system.

The fuel cells, which provide electrical power for the Space Shuttle, produce water as a byproduct, which is then used for food preparation and drinking. However, on the ISS, the electrical power will be produced by solar arrays. This power system does not produce water. Water will be recycled from a variety of sources, but that will not be enough for use in the food system. Therefore, most of the food planned for the ISS will be frozen, refrigerated, or thermostabilized (heat processed, canned, and stored at room temperature) and will not require the addition of water before consumption. Although many of the beverages will be in the dehydrated form, concentrated fruit juices will be added to the beverages offered and will be stored in the onboard refrigerator.

Similar to the Space Shuttle, the ISS beverage package is made from a foil and plastic laminate to provide for a longer product shelf life. An adapter located on the package will connect with the galley, or kitchen area, so that water may be dispensed into the package. This water will mix with the drink powder already in the package. The adapter used to add water also holds the drinking straw for the astronauts. The food package is made from a microwaveable material. The top of the package is cut off with a pair of scissors, and the contents are eaten with a fork or spoon.

Visit *http://spacelink.nasa.gov/space.food* to see and download the ISS Food List.

Empty International Space Station food tray.

International Space Station food tray (frozen food)

International Space Station frozen food storage: Food will be stowed in pullout drawers, which allow complete viewing of drawer contents. Lipped edges on the food package interface with the storage container, oven, and serving tray.