ESCRIPTION

The PLSSU, with modular life support equipment, is designed to be self-contained, self-powered and fully compatible with military aircraft and vehicles used for patient transport. It is capable of: supplying two to four hours of oxygen to a patient, depending on flow rates; ECG monitoring for five hours; delivering 50 defibrillation shocks; and carrying other supplies and equipment needed for suction, resuscitation, and the treatment of sho

The design of the PLSSU is modularized so that it ca... e econfigured as desired to fill various types of applications of emer. ncy Medevac operations (shipboard, helicopter, or ambulance), inter-hospital transfers, or intra-hospital use. When configured for patient transfers, either Medevac or inter-hospital, the major components are a standard canvas or Stokes litter and the equipment carrier. The equipment carrier is designed to be similar in dimensions and weight to a standard canvas litter with a patient. It is 92 inches (233.7 cm) long by 22 inches (55.9 cm) wide by 16 inches (40.6 cm) high. It weighs from 164 pounds (74.4 Kg) to 184 pounds (83.5 Kg) with equipment and supplies, depending on the ECG monitor and defibrillator used. This is approximately equivalent in weight to a 170 pound (77.27 Kg) patient on a standard canvas litter. (A standard canvas litter weighs 12 pounds (5.45 Kg).) The handles at each end of the equipment carrier are similar to those of the standard canvas litter. This configuration (dimensions, weight, and handles) allows the equipment carrier to be handled separately as a standard canvas litter and installed in any military evacuation vehicle without modification to its standard litter rack spacings and equipment. The equipment carrier thus occupies the space of only one patient aboard the vehicle, while providing life support and/or emergency care for one or more patients. An important feature of the PLSSU is that it quickly transforms a utility helicopter or other transport vehicle into an

When configured for intra-hospital use, the major components are the equipment carrier and a hospital pallet unit. The hospital pallet unit, a bed-like attachment intended for hospital use, is held in place by the same quick-release pins as the standard canvas litter at the approximate bed height of 30 inches (76.2 cm). This makes the transfer of a patient to and from the stretcher much easier. While in transit within the [illegible]pital, emergency life support can be provided to the patient in a hallw[illegible] [illegible]vator, or wherever required. The hospital pallet unit has a unif[illegible]m density top with a full length shelf for x-ray cassettes. This will allow a patient to be x-rayed without removing the patient from the stretcher unit. If a transfer operation between hospitals or Medevac operation were required, the hospital pallet unit could be lifted off the equipment carrier by removing the four quick-release pins. A standard canvas litter or Stokes litter could then be attached, making the unit ready for patient vehicle transfers.

The equipment and supplies selected for use on the equipment carrier allow it to function as a portable, self-contained, and self-powered crash cart while transporting a patient. Four drawers for equipment and supplies are accessible from either side and are completely removable. The equipment and supplies are arranged in order of priority for emergency procedures. Airways and resuscitation equipment are located in the drawer nearest the head of the patient. Suction equipment, medicines, blood pressure cuff and stethoscope and intravenous supplies are located in the other drawers.

Oxygen for the PLSSU is supplied by a 40 cubic foot (1142 liter) oxygen cylinder or two D cylinders. The 40 cubic foot cylinder has the approximate capacity of two E cylinders (1250 liters) or three D cylinder (1080 liters). The 40 cubic foot cylinder could provide 4.7 hours of oxygen at a four liter per minute flow rate. Two D cylinders could provide over three hours of oxygen at

oxygen cylinders (360 liters each) which can be used within the hospital, thus assuring the availability of a full oxygen cylinder for transporting activities outside the hospital. The oxygen cylinders are strapped to mounts that are removable from the stretcher mainframe. The removable feature of the oxygen cylinders and mounts allows the cylinder valve to be oriented to either side the PLSSU. The oxygen cylinders and mounts can also be quickly detached t provide oxygen away from the stretcher.

ECG monitoring is provided by a Medical Research Laboratory Mode. MB P.K 500 AT-AF ECG monitor/defibrillator/ECG tapewriter unit or a Physio-Control Life Pak 5. Both units feature ECG monitors which are removable from the defibrillator. The monitors have their own set of batteries which provide power from two to five hours of continuous monitoring from a full charge. The monitor will fit between a patient's legs, thus allowing convenient viewing. The defibrillators can deliver 25 to 50 full shocks (300 joules/sec) on a full charge. The defibrillator can be quickly removed from the equipment carrier to provide assistance away from the PLSSU.