

C-17 SPO performs upgrades for aeromedical mission

By 1st Lt. Dave Huxsoll
ASC Public Affairs

WRIGHT-PATTERSON AIR FORCE BASE--Easier access to patients, equipment and improved functionality are among design enhancements the C-17 System Program Office here incorporated into a new aeromedical litter station for the C-17.

The design is based on changes in Air Force requirements for worldwide aeromedical evacuation that now mandate a minimum of 21 inches vertical separation between litters. The old requirement was 16 inches. The additional space allows better interaction between medical personnel and the patient. Program office personnel made other changes to improve overall aeromedical station utility and effectiveness.

"Human factors and design engineers were put to the task to make numerous design improvements which drove out the nuisances and inadequacies found across all litter station designs," said Gibbs Dickson, lead project engineer at the C-17 SPO.

"Design improvements were made to the litter arms, utility panel, oxygen lines, stanchions, and overall set up and stowage placement and procedures. Quick disconnects, easy operating litter arms, quick and unambiguous set up procedures, and quick access to emergency oxygen was designed to enhance the overall efficiency of the aeromedical mission," explained Dickson. With the new three-tier design the C-17 can handle 36 littered patients and 48 ambulatory patients at a time.

"The new design has been very much appreciated by the aeromedical community as well as loadmasters and maintainers of the C17," Dickson said.

Lt. Col. John Starzyk, flight examiner and senior air reserve technician with the 315th Aeromedical Evacuation Squadron (AFRES), said the C-17 is ideally suited to the medical evacu-



Courtesy photo

Soldiers from the 82nd Airborne Division serve as patients on a C-17 aeromedical evacuation training mission. The new litter system is designed to provide easier access to patients and equipment.

ation mission.

"The C-17 gives theater commanders another option to support the wartime medical mission," he explained. "A fully-loaded C-17 can fly into a remote location, combat off-load pallets, quickly reconfigure for aeromedical evacuation, and launch. The result is that our injured troops can receive life saving medical care earlier." The 315th, based at Charleston

AFB, is the only Air Force unit qualified to fly aeromedical evacuation missions on the C-17.

The first production C-17 with the new station, aircraft No. 41, was delivered to Charleston AFB last year. In November the system was tested using soldiers from the 82nd Airborne Division, Fort Bragg, N.C., as patients. Retrofitting of the remaining fleet is scheduled to begin in July 2000.

Air Mobility Command will test facemasks for proper fit

By Staff Sgt. Eric Grill
60th Air Mobility Wing Public Affairs

TRAVIS AIR FORCE BASE, Calif. (AFP)—Air Mobility Command is testing more than 45,000 nuclear, biological and chemical protective masks to see if they fit properly.

The Department of Defense-directed test, known as the quantitative fit test, is aimed at people assigned to mobility positions and must be completed by Dec. 31. In addition to testing people identified to deploy, those people who are subject to deploy will be fit-tested by June 30. The QNFT standards are based on an Air Force study done by Pacific Air Forces in 1998.

The MCU-2A/P facemask is the Air Force's primary eye and respiratory protection device. It features a large single viewing lens, drinking tube, voice transmitter and a single screw-on/off canister filter.

The program is designed to determine how well the mask fits the wearer and to properly

The test takes about 15 minutes and involves donning the mask and performing simple tasks like head movement and talking.

train the individual in the wear of the mask. The test takes about 15 minutes. It involves donning the mask and performing simple tasks like head movements and talking.

The main testing device, called the M-41, connects through the drinking tube of the mask to take air samples from inside the mask as the person performs specific tasks. A non-harmful air contaminant, such as smoke from burning wax, is released into the air. The M-41 measures the air particles in the mask and compares it against the air particles outside of the mask.

QNFT is a critical part of the overall force protection and is a joint venture between Air Force bioenvironmental engineering and civil engineer readiness flights, said Col. David Potts, AMC bioenvironmental engineer.

"The purpose of the QNFT program is to enhance the NBC weapon defense protection through properly fitting the mask to endure maximum protection," Potts said. "It also helps increase users' confidence in their NBC mask."

In the past, the Air Force used subjective methods to determine if the gas masks fit. "QNFT does not rely on an individual's smell and taste to see if the mask is working properly," Potts said. "The difference between the two testing methods is a quantum leap forward — from subjective to objective assessment."

The test measures the concentration of non-harmful contaminants in the atmosphere and inside the mask to calculate a fit-factor. The higher the fit-factor the better, Potts said.

Gen. Charles T. "Tony" Robertson Jr., AMC commander, said recent international events

have illustrated many nations possess and have the will to use nuclear, biological and chemical weapons.

"Just as anthrax immunizations may be compared to a 'knight's body armor,' the mask can also be classified as body armor," Robertson said. "A potential 20 percent increase in wing survivability is the expected return on investment of QNFT."

If the individual does not achieve an acceptable fit-factor, then adjustments can be made on the spot to correct the fit. This might require the use of a skullcap or selecting a larger or smaller mask, or switching to a different type of mask.

"The Air Force will exhaust all feasible options to attain the highest fit-factor possible for personnel assigned to or who may deploy to medium- or high-threat areas," Potts said. "The QNFT will be one of the factors for commanders to consider when assigning people to mobility positions." (Courtesy of AMC News Service)

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