



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AERONAUTICAL SYSTEMS CENTER (AFMC)
WRIGHT-PATTERSON AIR FORCE BASE OHIO

11 April 2005

MEMORANDUM FOR 311 HSW/YAMA
7980 LINDBERG LANDING
BROOKS CITY BASE TX 78235

FROM: ASC/ENFC/ATTLA
2530 Loop Road West
Wright-Patterson AFB OH 45433-7101

SUBJECT: Air Transportability Certification of Next-Generation Portable Therapeutic Oxygen (NPTLOX) System, Rev 3 (Project File Code 2003.10.27)

References: (a) Document, 16 March 2005, Safety Drop Test Report for NPTLOX, Document Number SDTR-50C-0083-1-1

(b) ASC/ENFC Memo, 10 May 2004, Rescinded Air Transportability Certification of Next-Generation Portable Therapeutic Oxygen (NPTLOX) System, Rev 2

1. This memo reinstates air transport approval for the Next-Generation Portable Therapeutic Oxygen (NPTLOX) System on United States Air Force (USAF) C-130 E/H/J, C-130 "Stretch," C-141, C-17, KC-10, and KC-135 after successful completion of the safety drop impact test (ref (a)). NOTE: This memo replaces the memo cited in ref (b).

2. Air transport procedures and limits are shown below:

a. The air transport dimensions and weight limit are 22 inches L x 18 inches W x 34 inches H and 150 lbs. If it is carried in the shipping container, the dimensions are 30 inches L x 30 inches W x 39 inches H and weight limit is 170 lbs.

b. The dewar will be filled with nitrogen gas, instead of LOX, if it is shipped in the shipping container as an item of cargo. The gas is used to maintain the dewar at a higher-than-ambient pressure.

c. The unit, by itself or in the shipping container, may be secured on the cargo floor to a pallet or transport vehicle.

d. CAUTION: Do not lift the unit more than 16 inches above the floor as measured from the base to the floor.

e. The NPTLOX unit shall be restrained to meet 9Gs forward, 1.5Gs lateral and aft, and 2Gs vertical (up) when it is used with patients or placed aft of personnel. Use the NPTLOX tiedown straps attached to the rings for forward, aft, and lateral restraint. Each ring and strap combination is rated for 1000 lbs. Route an aircraft provided tiedown strap over the top of the unit and routed through the handle for vertical restraint. Do not use the handles as tiedown provisions.

f. If air transported as cargo in the shipping container, the forward restraint requirement is 3Gs, 1.5G lateral and aft, and 2G vertical (up). If the container is aft of personnel, the forward restraint is 9Gs. Restrain the shipping container as shown in the illustration for boxed cargo shown in Section 4 (IV) of the aircraft 1C-XXX-9, Cargo Loading Manual for each aircraft (see Figure 1). Straps can be routed through the shipping container's lifting handles but the handles cannot be used as tiedown provisions.

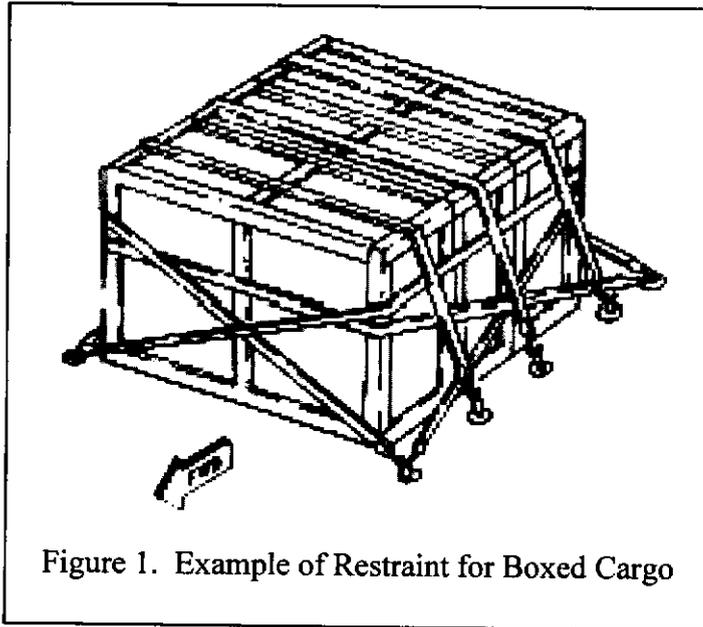


Figure 1. Example of Restraint for Boxed Cargo

3. The NPTLOX appears to meet air transport requirements for the Civil Reserve Aircraft Fleet. Permission to transport the load shall be obtained from the aircraft commander, designated crewmember, or carrier representative.
4. Usage of the NPTLOX system on board the aircraft is contingent upon having airworthiness approval from the applicable aircraft systems program office.
5. A copy of this certification must accompany the item each time it is transported.

6.



cc:
Listed on Next Page

cc:

HQ AMC/A32/A37V/A37VG/A37VK/A37VM/A37VX/A58F

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