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DEPARTMENT OF THE AIR FORCE

HEADQUARTERS AERONAUTICAL SYSTEMS CENTER (AFMC)
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

12 May 2003

MEMORANDUM FOR NAVAL SURFACE WARFARE CENTER
CARDEROCK DIVISION, DET NORFOLK
2600 TARAWA CT., SUITE 303
NORFOLK VA 23521-3239

FROM: ASC/ENFC
Bld 560
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SUBJECT: Air Transportability Certification of 38-foot Small Unit Riverine Craft (SURC) and Trailer

Reference memo from Naval Surface Warfare Center, Carderock Division, Det Norfolk, Small Unit Riverine Craft 38-ft – Certification for Loading aboard C-130 aircraft, 1 Apr 2003.

1 The 38-foot Small Unit Riverine Craft (SURC) and Trailer are approved for air transport in the C-130, C-141, C-17 and C-5 aircraft with the following provisions. Due to the size of the item, permission to carry passengers in the C-130 must be obtained from HQ Air Mobility Command Standardization (AMC/DOV), Scott Air Force Base at (618)-229-3623 or DSN 779-3623.

1.1 The SURC and trailer, in the transport mode, is 496-in L x 122-in W (102-in at trailer tires) x 104-in H (with the top removed). The SURC top shall be placed and restrained to the deck of the SURC. The trailer gross weight limit, axle limit, and land gear limits are 16,800-lbs (see para 1.3 and 1.4), 6,222-lbs (for flight) and 2,000-lbs, respectively. Each axle is rated at 28,000-lbs but is limited to 6,222-lbs due to flight loads. The axle may exceed 6,222-lbs during ground loading and unloading. The trailer axles are 33.5-inches apart. Any two adjacent axles shall be considered as one axle and the remaining axle shall be considered as a single axle. For example, the rear axle and center axles are considered as a single axle whose weight is the combined weight of the two axles. The forward axle is then considered as a single axle.

1.2 Both the SURC and trailer have 10,000-lb tiedown provisions.

1.3 A vehicle or material handling equipment (MHE) with a movable pintle, tines or kingpin must be used to maneuver the SURC/Trailer in and out of all aircraft to prevent ramp cresting, ceiling projection and to maintain two axles in contact with the aircraft. Limiting the gross weight to 16,800-lbs and having two axles in contact with the aircraft prevent the combined axle weight from exceeding axle limits on the C-130, tire limits on the C-141 and eliminate use of shoring under the tires.

1.4 The gross weight may be increased to 20,666-lbs (6,222-lb x 3 axles + 2,000-lb land gear) if the item is loaded straight in with all three axles in contact with the aircraft (i.e. via K-loader).

1.5 For the C-130 and C-141, the load must be backed in. The rear end must also be rotated down during loading/unloading to avoid projecting into the ceiling.

1.6 For C-17 and C-5, the load may be backed in or driven in. For C-17, use 35-in L x 18-in W x 3.5-in H ramp toe shoring if the load is backed in. The C-5 shall be in the kneeled position.

1.7 Place a minimum 26-in L x 26-in W stack of sleeper shoring under the front end of the trailer (14-in H) or under the landing gear (10-in H) to support the front end during flight.

2 The SURC top and other stowed equipment must meet the restraint requirement of MIL-STD-1791, i.e. 3G forward, 1.5G lateral and aft, and 2G vertical (up). In addition, the item and all mounted or stowed equipment must be able to withstand a 4.5G download.

3 All hazardous materials must be prepared and certified in accordance with the provisions of AFMAN 24-204(I). This air transport certification is not to be considered as approval for hazardous materials. This approval is granted separately. Your servicing air terminal personnel can assist you in this regard. The vehicle shall be capable of withstanding the aircraft rapid decompression of up to 8.3-psi within 1/2 second without imposing any hazard to the aircrew or passengers.

4 A copy of this certification must accompany the item each time it is transported.

5 The air transportability engineer for this project is the undersigned at DSN 785-6039 or (937) 255-6039. The E-mail address is mark.kuntavanish@wpafb.af.mil. Please refer to project file code 2003.04.11.

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