Internal Air Transport Certification

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Date: 15 August 2017
Item Nomenclature: High Mobility Artillery Rocket System (HIMARS) Increased Crew Protection (ICP) M-142 Launcher
File Number: 2008.09.03 Rev 3
Requestor: On File
Superseded Certification Date: 27 May 2014

New Information Summary: Updated procedures when loading on C-130 aircraft and adjusting tire pressure.

Item Description: The HIMARS ICP is identified to be a missile launching system installed on a 5-ton FMTV (Family of Medium Tactical Vehicles) chassis. Approximate dimensions are 309" L x 99" W x 104" H. It has a gross weight of 37,020 lbs and a gross vehicle weight rating of 37,500 lbs. The vehicle axle weights are approximately (front to rear) 15,000 lbs, 10,800 lbs, and 10,250 lbs. The vehicle axle ratings are (front to rear) 15,700 lbs, 19,000 lbs, and 19,000 lbs.

NOTE: The listed dimensions are approximations. Actual dimensions can vary as long as aircraft limitations published in applicable cargo loading manuals and the conditions of certification listed below are not violated. Adjustments to shoring and/or loading methods shall be reported to ATTLA.

Figure 1: HIMARS with ICP and M-142 Launcher

Certified Aircraft: USAF C-130, C-17, and C-5

Conditions of Certification:

1. **Maximum Weight for Air Transport:**

   a. Gross vehicle weight:

      1) C-17 & C-5 – 37,500 lbs (Vehicle/restraint limit)

      2) C-130 – 37,500 lbs (Vehicle/restraint limit)

   b. Axle Limits:

      1) C-17 & C-5 – (front to rear) 15,700 lbs, 19,000 lbs, 19,000 lbs (Vehicle limit)

      2) C-130 – 13,500 lbs (See waiver limit in note below)

NOTE: 330 ACSSS/GFEA and 657 AESS/SYEA have provided approval to transport the HIMARS ICP with a front axle weight up to 13,500 lbs. All other applicable cargo loading manual limits apply. Their approval is contingent upon the following:

Sufficient tire pressure must be maintained on the M142 Launch vehicle such that wheel rims will not bottom out against the cargo floor during the entire flight and ground handling envelope. If run flat inserts are used within the tires, these must be prevented from floor contact by proper regulation of tire pressure. Preparation of the vehicle as per paragraph 2.b will allow compliance with these requirements.

2. Item Preparation:

a. The launcher shall be prepared for air transport to meet the weight requirements listed in paragraph 1.

b. The Launcher/Loader Mechanism (LLM) shall be pinned and the hydraulics deactivated.

c. Prior to loading on the C-130 aircraft the front tires and rear tires shall be reduced to the Air Load mode setting on the Central Tire Inflation System (CTIS). If the CTIS is inoperative, or if the loadmasters suspect the system is not properly deflating the tires, ensure at least five knuckles (Three Outboard and two Inboard) of tread are contacting the ground. If any less than five are completely touching the ground there will not be enough clearance. See Figure 2.

CAUTION: After adjusting CTIS system or any tire setting; re-measure the height prior to loading on C-130 Aircraft.

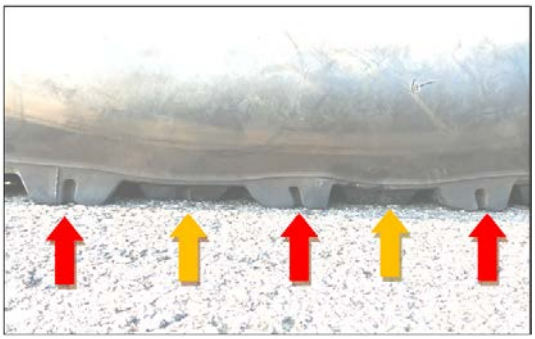

Figure 2: Three Outboard Knuckles and Two Inboard Knuckles

d. All hazardous materials (to include fuel level, batteries, etc.) must be prepared and certified for airlift in accordance with TM 38-250/AFMAN 24-204(I). Do not consider this air transport certification as approval for hazardous materials. Authorization for airlifting hazardous material is the responsibility of AFMC/A4RT (DSN 787-4503 or COM (937) 257-4503).

3. Loading Instructions: The vehicle can be loading utilizing the vehicle general loading procedures as listed in the respective cargo loading manual.

CAUTION: After adjusting CTIS system or any tire setting; re-measure the height prior to loading on C-130 Aircraft.

CAUTION: Prior to loading on C-130 aircraft close the paratroop doors. Monitor all height clearances during up/down load; per 1C-130X-9.

4. Restraint requirements: The HIMARS ICP and all accompanying cargo must be restrained to meet air transport requirements of 3G forward, 1.5G aft and lateral, and 2G up. In addition, stored or

installed equipment must meet these requirements and be capable of withstanding a 4.5G down load. Below in Figure 3 and 4 are suggested tiedown patterns for loading 2 HIMARS ICP on the C-17. The vehicle is fitted with two front and two rear tiedown provisions with a rated capacity as follows:

Table 1: Provision Location & Rated Capacities

Provision Location	Longitudinal	Lateral	Vertical
Front end (2)	76,000 lbs	28,000 lbs	19,000 lbs
Aft end (2)	75,000 lbs	28,000 lbs	20,000 lbs

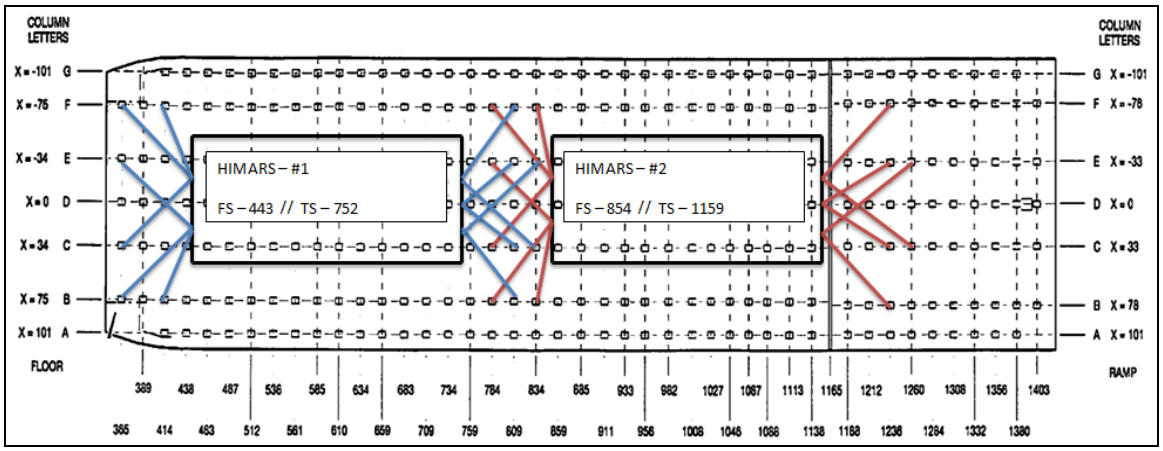

Figure 3: C-17 Suggested Tiedown Pattern (2 HIMARS ICP)

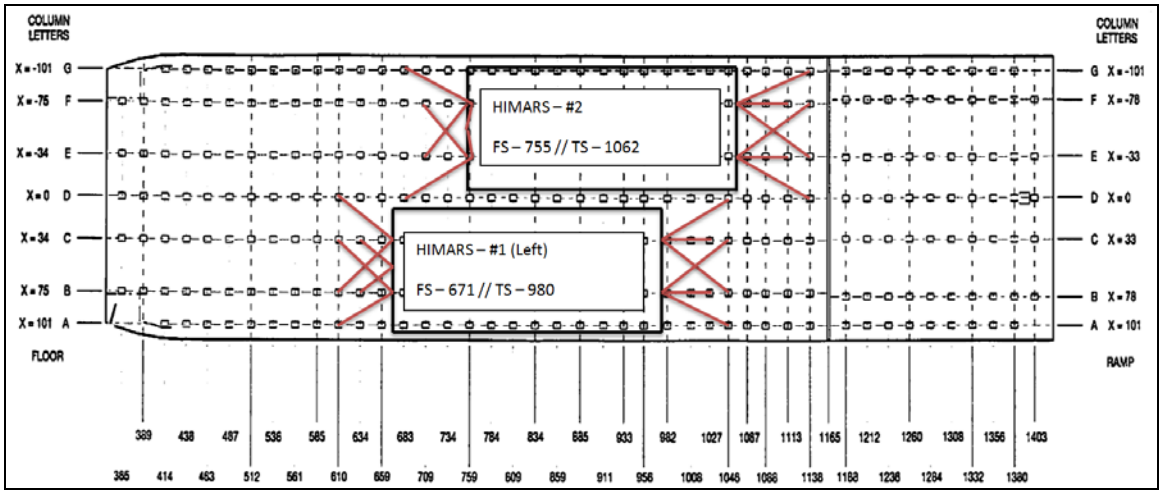

Figure 4: C-17 Suggested Tiedown Patterns (SPRO Configuration)

Required Distribution:

1. Shipper shall give a copy of this certification to the ATOC representative when the item is presented for airlift. This memo shall be part of the official cargo manifest documentation package and shall be briefed to the aircraft loadmaster prior to loading these items.

2. AMC/A3V & AMC/A4T.

3. SDDC TEA.

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