



**DEPARTMENT OF THE ARMY**  
**AERIAL DELIVERY AND FIELD SERVICES DEPARTMENT**  
**UNITED STATES ARMY QUARTERMASTER SCHOOL**  
**710 ADAMS AVENUE**  
**FORT LEE, VA 23801-1502**

ATSM-ADF

25 January 2026

**MEMORANDUM FOR RECORD**

**SUBJECT:** Exception to TM 4-48.03/TO 13C7-1-11 for Reusable Energy Absorbing Layer (REAL) and Reusable Universal Skidboard (RUSB)

**1. References:**

a. TM 4-48.03/TO 13C7-1-11 (Airdrop of Supplies and Equipment: Rigging Containers), 15 March 2016.

2. The current A-22 rigging procedures utilize a traditional plywood skidboard and paper energy dissipating material. Both are considered one-time use expendable items. REAL and RUSB are reusable products that lower the man-hours required to assemble and the overall cost of expendable items.

3. This exception to policy governs REAL and RUSB airdrop rigging utilizing the A-22 cargo bag assembly. Units are authorized to omit the cover while rigging if the rigger ensures items will not depart the sling assembly during aerial delivery.

4. This exception will remain in effect until rescinded or incorporated into the rewrite for TM 4-48.03/TO 13C7-1-11.

5. The point of contact for this action is CW5 Hall at [anthony.w.hall6.mil@army.mil](mailto:anthony.w.hall6.mil@army.mil).

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## SECTION IX - RIGGING SINGLE A-22 WITH REUSABLE UNIVERSAL SKIDBOARD (RUSB) AND REUSABLE ENERGY ABSORBING LAYER (REAL) FOR LOW- OR HIGH-VELOCITY

### DESCRIPTION OF LOAD

8-99. A typical load is rigged for low- or high-velocity airdrops using a single A-22 container. The cover is optional. The weight limitation of the load is 501 to 2,200 pounds, excluding the weight of the parachute. The load is rigged with either one G-12E cargo parachute with a 68-inch diameter pilot parachute or a 26-foot ring-slot parachute. Units may utilize the RUSB with traditional EDM or a traditional plywood skid board with REAL. REAL and RUSB are recommended to be utilized together. RUSB should not be authorized to exceed 100 drops.

### PREPARING RUSB

8-100. RUSB comes prepared with pre-drilled holes. See Figure 8-51.

#### Notes.

This drawing is not drawn to scale.

All dimensions are given in inches.

Both side of the RUSB are usable for aircraft rollers.

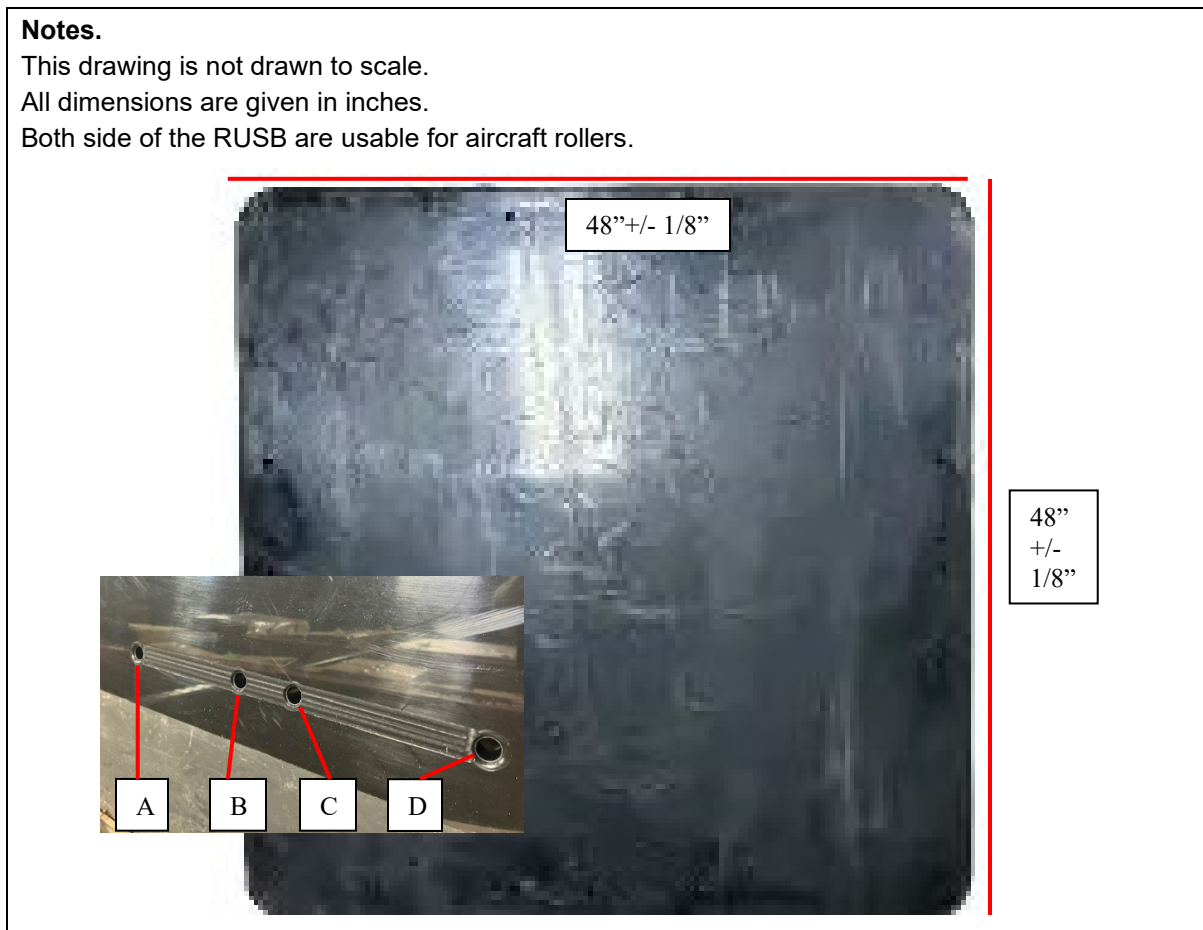
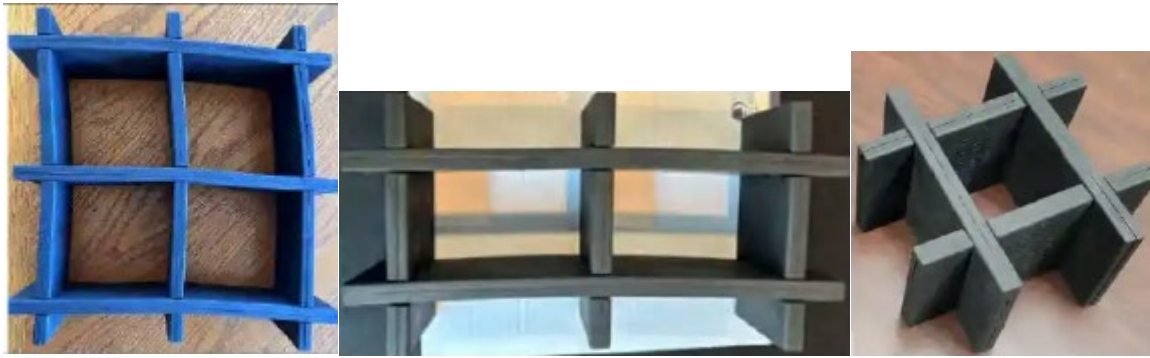


Figure 8-51. RUSB

### ASSEMBLING REAL (42"X42")

8-101. Assemble 9 - 12"x12" modules, 6 - 6"x12" modules, and 1 - 6"x6" module as shown in Figure 8-52.

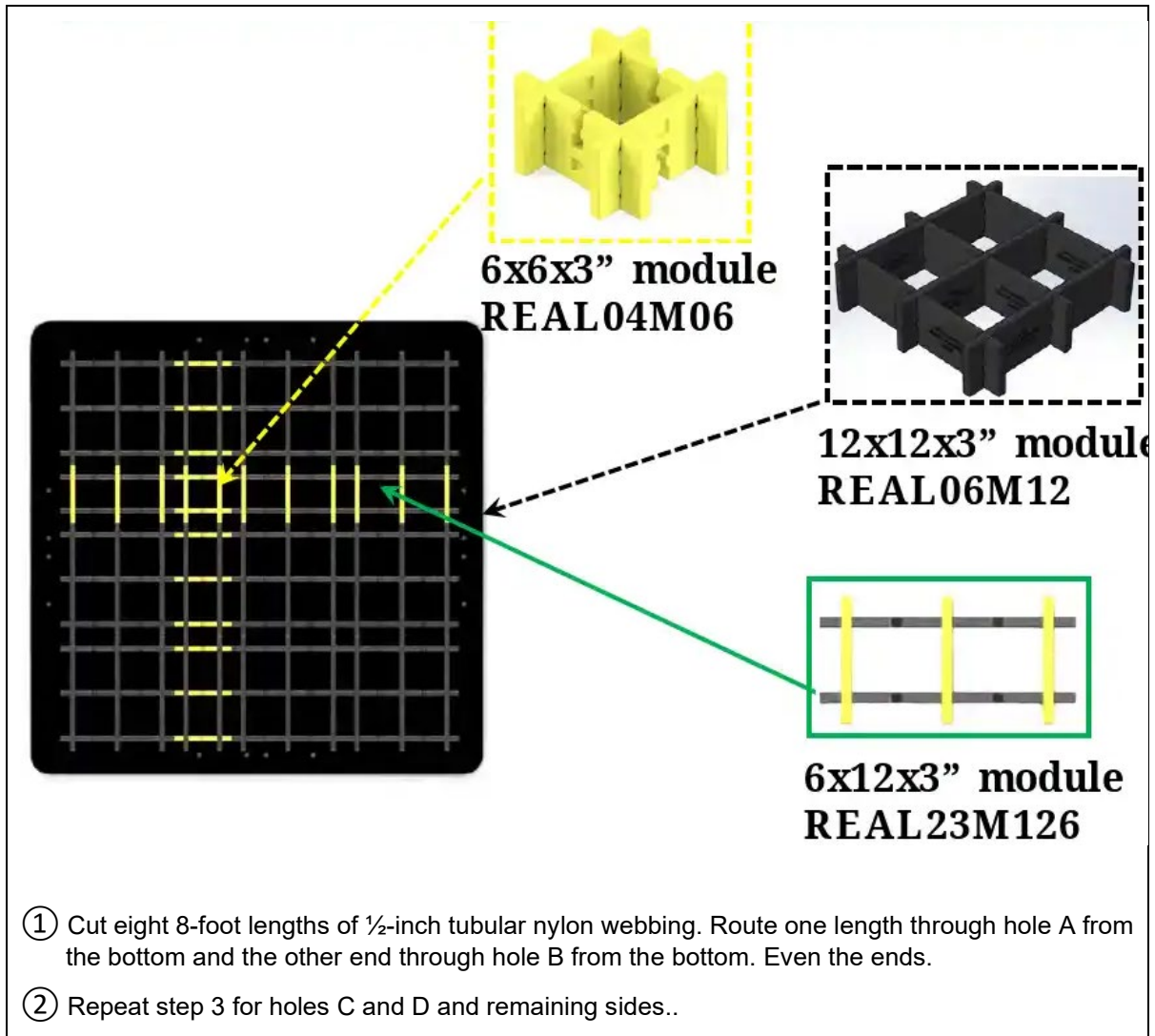


- ① Connect 6 12" pieces in a grid pattern. Ensure all pieces are flush (may use an elastic head hammer if needed).
- ② Connect 2 12" pieces and 3 6" pieces in a grid pattern.
- ③ Connect 4 6" pieces in a grid pattern

**Figure 8-52. REAL Assembly**

## **PREPARING RUSB TIES AND POSITIONING REAL**

8-102. Prepare the skid board ties and position the REAL on the skid board as shown in Figure 8-53.



**Figure 8-53. RUSB Ties Prepared and REAL Positioned**

## **SECURING THE REAL BELT**

8-103. Position the REAL belt around the outside of all REAL modules as shown in Figure 8-54.

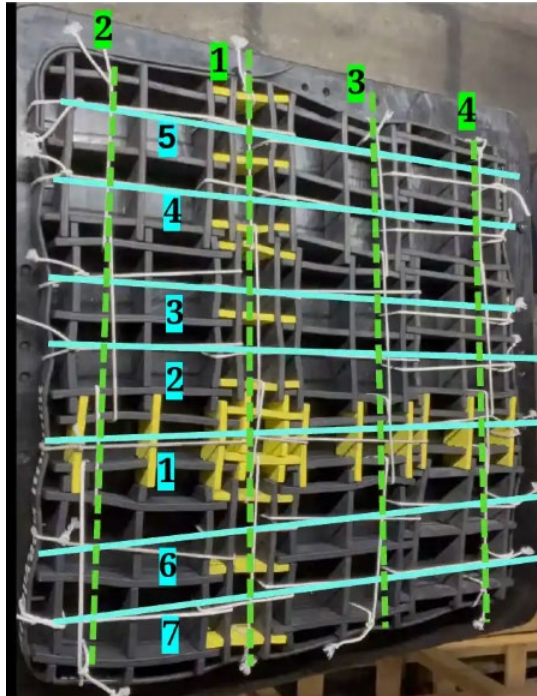


- ① Wrap the belt around the REAL layout. Tension the belt and overlap the extra sections.
- ② Insert the inner part of the belt into the outer belt tensioner. Repeat the same thing with the outer part of the belt into the inner belt tensioner. Ensure approximately 2" are extended past each tensioner.
- ③ It is recommended not to tighten the belt completely until the load is placed on the REAL layout.

**Figure 8-54. Securing the REAL Belt**

## OPTIONAL: SECURING REAL TO RUSB

8-104. Users may secure REAL to the RUSB as shown in Figure 8-55.



- ① Cut 11 – 96" pieces of ½" tubular nylon.
- ② Weave the ½" tubular nylon between each REAL module as shown.
- ③ Secure each with three-alternating half-hitches and a knot in the running end. Repeat for each tie.

**Figure 8-54. OPTIONAL Securing REAL to RUSB**

## POSITIONING A-22 SLING ASSEMBLY

8-105. Position an A-22 sling assembly as shown in Figure 8-3.

## POSITIONING COVER

8-106. Use an optional A-22 cargo bag cover when rigging this load, if needed. Position the covers as shown in Figure 8-3.

## POSITIONING LOAD AND CLOSING BAG COVERS

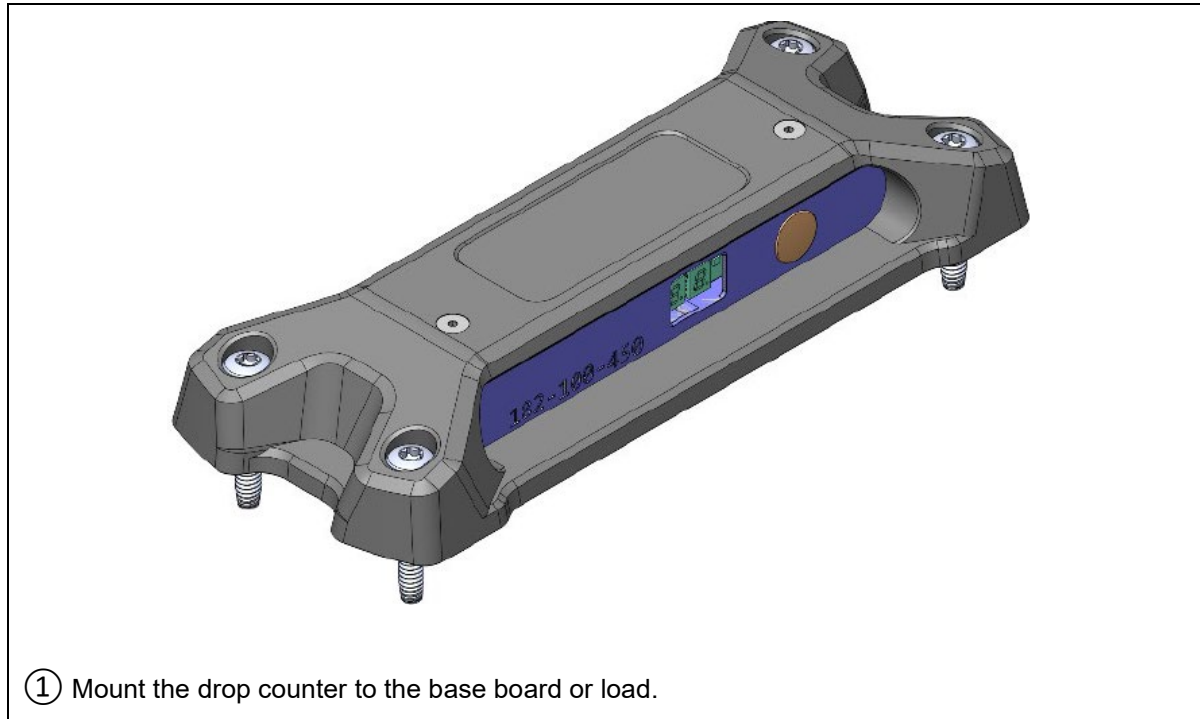
8-107. Center the load so that the weight of the load is evenly distributed. Use honeycomb and cellulose wadding to protect the items. Use cord, tape, or steel strapping to keep the load from shifting. Close the cover as shown in Figure 8-4.

## SECURING A-22 CARGO BAG SLING

8-108. Secure the sling assembly as shown in Figure 8-5.

## OPTIONAL: MOUNTING THE DROP COUNTER

8-109. Mount the optional drop counter to the base board or load. The counter will need to be numbered the same as the RUSB. This will track the number of drops on that specific RUSB. See Figure 8-55 for the drop counter.



**Figure 8-55. OPTIONAL Mounting the Drop Counter**

## **SECURING SKID BOARD TIES**

8-110. Secure the skid board ties as shown in Figure 8-6.

## **INSTALLING SUSPENSION WEBS**

8-111. Install suspension webs as shown in Figure 8-7.

## **INSTALLING PARACHUTE**

8-112. Install a cargo parachute according to Chapter 7.



**MARKING RIGGED LOAD**

8-113. Mark the rigged load according to TM 4-48.03/TO 13C7-1-11. Compute the rigged load data. A Shipper’s Declaration for Dangerous Goods may be required.

**CAUTION**

Make the final rigger inspection required by this manual and AR 59-4/AFMAN 13-210 Vol. 1 before the load leaves the rigging site.



**RIGGING LOAD DATA (WITHOUT PARACHUTE)**

|                                       |                    |
|---------------------------------------|--------------------|
| G-12E cargo parachute .....           | 501 – 2,200 pounds |
| LCADS LCLV cargo parachute.....       | 501 – 2,200 pounds |
| 26-ft Ring-Slot cargo parachutes..... | 501 – 1,600 pounds |

**Figure 8-56. A-22 RUSB and REAL Rigged for Airdrop**

## EQUIPMENT REQUIRED

**Table 8-14. Equipment Required for Rigging an A-22 with REAL & RUSB**

| <i>National Stock Number</i> | <i>Item</i>                             | <i>Quantity</i> |
|------------------------------|-----------------------------------------|-----------------|
| 1670-00-587-3421             | Bag, cargo, A-22                        | 1               |
| 4030-00-678-8562             | Clevis, suspension, 3/4-inch (medium)   | 1               |
| 4020-00-240-2146             | Cord, nylon, type III                   | As required     |
| Manufacture Purchase         | Reusable Energy Absorbing Layer, REAL   | 1 set           |
|                              | Parachute:                              |                 |
| 1670-01-065-3755             | Cargo, G-12E                            | 1               |
| 1670-00-216-7297             | Pilot, 68-inch diameter                 | 1               |
|                              | OR                                      |                 |
| 1670-01-547-0401             | Parachute, cargo, Low Cost Low Velocity | 1               |
|                              | OR                                      |                 |
| 1670-00-872-6109             | Parachute, cargo, 26-foot               | 1               |
| Manufacture Purchase         | Reusable Universal Skid Board, RUSB:    | 1               |
|                              | 1- by 48- by 48-inch                    |                 |
| 5340-00-360-0560             | Suspension Web                          | 4               |
| 7510-00-266-6710             | Tape, masking, 2-inch                   | As required     |
| 8310-01-102-4478             | Thread, cotton, ticket number 8/7       | As required     |
|                              | Webbing:                                |                 |
| 8305-00-268-2411             | Cotton, 1/4-inch, type I                | As required     |
|                              | Nylon:                                  |                 |
| 8305-00-082-5752             | Tubular, 1/2-inch                       | As required     |