NATIONAL INTERAGENCY FIRE CENTER

3833 South Development Avenue
Boise, Idaho 83705

March 11, 2020

NATIONAL FIRE EQUIPMENT SYSTEM
CACHE MEMORANDUM NO. 20-02

To: National Interagency Support Caches

From: David Haston, Chair – NWCG Equipment Technology Committee

Subject: 6000 Lb. Cargo Net (NFES 0458)

Background:

During routine inspection, several 6000 lb. cargo nets (NFES 0458) were determined to not meet serviceable standards due to fraying rope ends and the number of minimum tucks in rope terminations and splices. The subject nets were purchased through a National Interagency Support Cache (NISC) procurement and are likely to be in multiple NISC inventories. This memorandum pertains to the NFES 000458 cargo nets manufactured by Lift-It Manufacturing, Inc. in 2016, under contract number AG-82X9-P-16-6013 (Figure 1).

Figure 1—Example of the inspected NFES 000458 cargo net

Discussion Points and Findings:

Upon additional inspection by the National Technology and Development Program (NTDP) and in coordination with the manufacturer, it is likely that most nets are still considered serviceable. The 0458 nets are required to incorporate a minimum of four tucks in all rope terminations and splices; NTDP determined that all terminations and splices in the two nets inspected had the required minimum number of tucks. Furthermore, NTDP determined that some of the rope ends of the net had become unlayed and exhibited substantial fraying of the fibers at the end; terminations for rope ends for the 000458 nets are required to be "heat cut" to eliminate fraying.

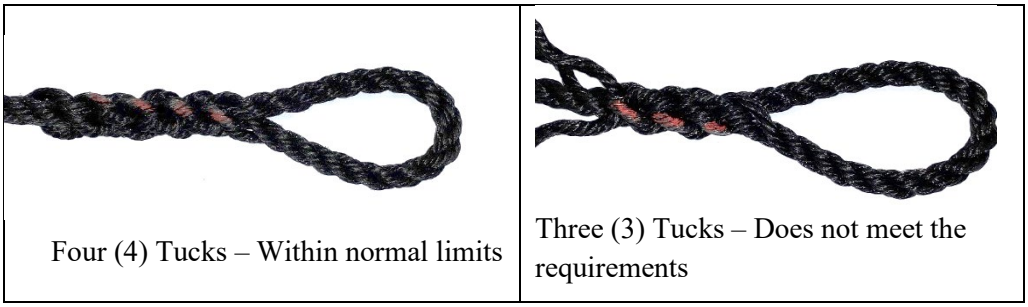
However, as long as the splice tucks are unaffected by fraying or loose strands, the technical performance of the net is undiminished.

Required Action:

National Interagency Support Caches are required to inspect and refurbish nets procured under contract number AG-82X9-P-16-6013 as follows:

1. Visually inspect all rope terminations and splices for the minimum number of tucks. Note that due to the length of some of the rope ends past the splice, some rope ends were tucked between other rope strands to constrain the extra rope (Figure 2). This condition is acceptable if the splice or termination itself contains the required minimum number of tucks. If any termination or splice has fewer than four tucks, the net should be removed from service.

Figure 2—Example of a rope end that has been braided past the splice and tucked underneath a different strand. Note that the splice has four (4) tucks.



Four (4) Tucks – Within normal limits

Three (3) Tucks – Does not meet the requirements

Figure 3—Comparison of a compliant splice that has four tucks with a non-compliant splice that has three (3) tucks.

2. Inspect all rope ends for fraying or unraveling. Rope ends should be refurbished in accordance with the Polypropylene Rope Terminus Taping Instructions (attached, and posted: https://www.nwcg.gov/sites/default/files/publications/448-000458-taping-instructions.pdf).

 Unraveled rope end	 Refurbished rope end

Figure 4—Comparison of a non-refurbished rope end with a refurbished rope end.

Additional Information:
The National Fire Equipment Subcommittee Chair is Matt Cnudde, 208-387-5277 or matthew.cnudde@usda.gov.

David V. Haston
David V. Haston
Chair – NWCG Equipment Technology Committee