

SECTION C

The Food Packet, Modular Operational Ration Enhancement (MORE) provides a special purpose enhancement packet for the individual and complements both individual and group rations. This packet of performance enhancing and high carbohydrate foods will help the individual maintain optimal performance levels in extreme operational environments and during high intensity missions.

C-1 ITEM DESCRIPTION

**ACR-F-002, FOOD PACKET, MODULAR OPERATIONAL RATION
ENHANCEMENT (MORE), ASSEMBLY REQUIREMENTS**

Types

Type I - High Altitude

C-2 ASSEMBLY REQUIREMENTS

A. Components. The components are specified in table I.

TABLE I. Components

Component	Reference
Beef Snacks, Cured	A-A-20298A , Package type J
Kippered Beef Strips	Type II, Style A
Teriyaki	Flavors 2
Barbeque	Flavors 3
Beverage Base, Powdered, Sweet, Ascorbic Acid and Maltodextrin, Flat Interlocking Closure Pouch	A-A-20098D , Type II, Formulation e, Design B
Orange	Flavor 1
Lemon-Lime	Flavor 4
Grape	Flavor 5
Tropical Punch	Flavor 10
Beverage Powder, Carbohydrate Electrolyte, Flat Interlocking Closure Pouch	PCR-B-013A Design B
Fruit Punch	Flavor I
Grape	Flavor II
Lemon Lime	Flavor III
Orange	Flavor IV
Cakes and Brownies, and Muffin Tops	PCR-C-007C
Fudge Brownie	Type II, Flavor 1
Cheese Spread, Cheddar; Fortified, with Jalapeno Peppers	PCR-C-039 Type II
Chewing Gum	A-A-20175C , Type VII, Size B,
Disk, Regular, with Caffeine, Regular, Cinnamon	Style (2), Class 1, Flavor c
Crackers, Fortified	PCR-C-037
Plain	Type I
FIRST STRIKE™ Bar	PCR-F-001
Mocha, Mini	Flavor V, Style B
Fruits, Wet Pack	PCR-F-002B
Applesauce, Carbohydrate Enhanced, Sweetened, Regular Style, Zapplesauce®	Type VII Spout pouch with no carton
Fruits, Osmotically Dried	A-A-20299A
Sliced Cranberries, Not Fortified	Type VII, Fortification a
Nut and Fruit Mix	PCR-N-003
Nuts and Raisins with Pan Coated Chocolate Disks	Type II
Snack Foods	A-A-20195C
Filled Pretzels	Type II, Style F
Cheddar Cheese	Flavor 1
Nacho Cheese	Flavor 2

C. Contents. The contents of each food packet are specified in table II.

TABLE II. Contents

Type I - High Altitude MORE

<u>Assortment 1</u> Cracker, Plain Cheese Spread, Jalapeno Zapplesauce® Fudge Brownie Mocha Mini, FIRST STRIKE™ Bar Beverage, Carbohydrate Electrolyte <u>1/</u>	<u>Assortment 2</u> Nuts and Raisins with Pan Coated Choc Disks Snack, Filled Pretzels Dried Cranberries Beef Snack: Teriyaki Beef Snack: Barbeque Caffeinated Gum Beverage, Maltodextrin Fortified <u>1/</u>
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1/ Flavors shall be procured in equal quantities and assembled in a uniform distribution.

SECTION D

D-1 PACKAGING

A. Components.

(1) Time-temperature indicator (TTI) label. The TTI label shall be a 3/4 inch square, bull's-eye type, pressure sensitive adhesive label. The TTI label shall have an activation energy (Ea) of 24–30 kcal/mole, be protected from ultraviolet radiation and have a shelf life of 730 days at 80°F as pivot point.

(2) Assembly package. The assembly package shall be of sufficient thickness and strength to contain the menu components without tearing or spillage of meal contents throughout assembly, packing and distribution.

B. Assembly.

(1) MORE assembly. Each applicable component for each MORE as described in table II shall be assembled and the collection of components shall be completely shrink wrapped using a heat shrink film suitably formulated for use with food packages. The size of the finished packet shall allow for the packing of 30 food packets into the box.

D-2 LABELING

A. MORE packet. Each MORE packet shall be correctly and legibly labeled on at least one face with permanent ink or other dark contrasting color. The label shall cite:

- Modular Operational Ration Enhancement (MORE)
- Type and Assortment number
- Contents list
- Name and address of assembler

D-3 PACKING

A. Packing. Thirty packets, 15 of each assortment, shall be packed in a fiberboard box. The fiberboard box shall conform to RSC-L, of ASTM D 5118/D 5118M, Standard Practice for Fabrication of Fiberboard Shipping Boxes, grade V2s of ASTM D 4727/D 4727M, Standard Specification for Corrugated and Solid Fiberboard Sheet Stock (Container Grade) and Cut Shapes, except the requirements for dry burst strength shall be minimum 425 psi, the requirement for wet burst strength shall be minimum 250 psi and the laminated board thickness shall be 0.069 inches. [US Army Research, Development, and Engineering Command, Natick Soldier Research, Development, and Engineering Center has found that solid fiberboard shipping container material consisting of two outer facings of 90# wet strength linerboard and an inner ply of 69# linerboard meets the performance criteria of this specification.] The box liner shall be a full inside width box liner fabricated from grade W5c fiberboard in accordance with ASTM D 5118/D 5118M, except the terminal ends of the liner shall overlap a minimum of 2 inches and no fastening of the overlap is required. The box shall be closed in accordance with closure method 2A1 of ASTM D 1974, Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Boxes; except the gap between the outer flaps shall be not more the 3/4 inch wide. Each box shall be reinforced with two girthwise nonmetallic straps. The inside dimensions of the box shall be 16-11/16 inches in length, 9-1/8 inches in width and 10-1/4 inches in depth.

D-4 UNITIZATION

A. Unit loads. Forty-eight boxes shall be arranged in unit loads in accordance with type I, class C of DSCP FORM 3507, Loads, Unit: Preparation of Semiperishable Subsistence Items. At least two boxes in each tier shall be oriented to display the TTI label.

D-5 MARKING

A. Shipping containers. Shipping containers shall be marked in accordance with DSCP FORM 3556, Marking Instructions for Boxes, Sacks, and Unit Loads of Perishable and Semiperishable Subsistence and as specified in the contract with the following exceptions:

(1) Identification markings normally placed on an end of the shipping container shall read from top to bottom, left to right, when the shipping container is rotated from its upright position onto its side for palletization. The major flaps of the shipping container closure immediately to the right of the marked end of the shipping container shall bear the following marking:

Contract data and other required markings

Date of pack

Lot number

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Time Temperature Indicator label shall be centrally positioned on the panel. A minimum distance (quiet zone) of 1/4 inch from the nearest identification marking shall be maintained.

(2) One side panel of shipping container shall be marked “Food Packet, Modular Operational Ration Enhancement (MORE)” in letters not less than 1-1/4 inches high. In addition, the type shall also be marked on the box.

B. Unit loads. Unit loads shall be marked in accordance with DSCP FORM 3556.

SECTION E INSPECTION AND ACCEPTANCE

The following quality assurance criteria, utilizing ANSI/ASQ Z1.4, Sampling Procedures and Tables for Inspection by Attributes, are required. Unless otherwise specified, single sampling plans indicated in ANSI/ASQ Z1.4 will be utilized. When required, the manufacturer shall provide the Certificate(s) of Conformance to the appropriate inspection activity. Certificate(s) of Conformance not provided shall be cause for rejection of the lot.

A. Definitions.

(1) Critical defect. A critical defect is a defect that judgment and experience indicate would result in hazardous or unsafe conditions for individuals using, maintaining, or depending on the item; or a defect that judgment and experience indicate is likely to prevent the performance of the major end item, i.e., the consumption of the ration.

(2) Major defect. A major defect is a defect, other than critical, that is likely to result in failure, or to reduce materially the usability of the unit of product for its intended purpose.

(3) Minor defect. A minor defect is a defect that is not likely to reduce materially the usability of the unit of product for its intended purpose, or is a departure from established standards having little bearing on the effective use or operation of the unit.

B. Conformance inspection. Conformance inspection shall include the examinations/tests and the methods of inspection cited in this section.

C. Packaging examination.

(1) Assembled packets examination. The filled and sealed food packets shall be inspected for the defects listed in table III. The lot size shall be expressed in packets. The sample unit shall be one packet. The inspection level shall be S-4 and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 2.5 for major defects and 4.0 for minor defects. A minimum of 50 samples shall be examined for critical defects. The finding of any critical defect shall be cause for rejection of the lot. The inspection sample shall contain a proportionate amount of packets.

TABLE III. Assembled food packet defects

Category		Defect
<u>Critical</u>	<u>Major</u> <u>Minor</u>	
1		Tear or hole or open seal in cheese spread.
2		Swollen applesauce or cheese spread.
	101	Component missing or incorrect assortment for packet.
	102	Packet not clean or outer packaging of contents not clean. <u>1/</u>
	103	Foreign odor.
	104	Label missing or incorrect or illegible.
	105	Tear or hole or open seal in component packages.
	106	Crushed or broken component. <u>2/</u>
	201	Tear or hole or open seal in packet. <u>3/</u>

1/ Outer packaging shall be free from foreign matter, which is unwholesome, has the potential to cause package damage (i.e. glass, metal filings, etc.), or generally detracts from the clean appearance of the package. The following examples shall not be scored as defects for unclean:

a. Foreign matter which presents no health hazard or potential package damage and which can be readily removed by gently shaking the package or by gently brushing the package with a clean dry cloth.

b. Localized dried product which affects less than 1/8 of the total surface area of one pouch face, or an aggregate of scattered dried product which affects less than 1/4 of the total surface area of one pouch face.

2/ For definition of crushed or broken, refer to applicable ration component document.

3/ The holes provided in shrink wrap to allow venting of air to facilitate effective application of shrink wrap are permitted and shall not be scored as defects.

D. Packing.

(1) Shipping container and marking examination. The filled and sealed shipping containers shall be examined for the defects listed in table IV. The lot size shall be expressed in shipping containers. The sample unit shall be one shipping container fully packed. The inspection level shall be S-3 and the AQL, expressed in terms of defects per hundred units, shall be 4.0 for major defects and 10.0 for total defects.

TABLE IV. Shipping container and marking defects

Category		Defect
<u>Major</u>	<u>Minor</u>	
101		Marking missing or incorrect or illegible.
102		Outer flaps do not completely meet, leaving an opening greater than 3/4 inch between flap ends.
103		Inadequate workmanship. <u>1/</u>
104		Missing packet. <u>2/</u>
105		Not 15 of each assortment specified.
	201	Thirty packets do not fit in box.
	202	Time-temperature indicator missing or not centrally located on panel.
	203	Time-temperature indicator 1/4-inch quiet zone not maintained.

1/ Inadequate workmanship is defined as, but not limited to, incomplete closure of container flaps, loose strapping, inadequate stapling, improper taping, or bulged or distorted container.

2/ Each missing packet is a defect.

(2) Flap closure testing. The lot size shall be expressed in shipping containers. The sample unit shall be one shipping container. The inspection level shall be S-2 and the AQL, expressed in terms of defects per hundred units, shall be 4.0. The closure of the four outer flaps of the container shall be tested separately. A 90 degree angular bar with each leg approximately 5 inches long by 3 inches wide by 1/8 inch thick shall be used to test the flap closures. Insert one leg of the angular bar full length under the center of one outer flap. Insertion shall be made through the open slot between the outer flaps. Lift the container vertically by the other leg of the bar until the container is suspended. The complete upper surface of the inserted leg shall be in contact with the inner surface of the flap during the lifting and suspension of the container. Complete separation of the adhesive bond of one or more of the outer flaps, showing no evidence of fiber tear, shall be scored a major defect.

F. Unit load examination. The unit load shall be examined in accordance with the requirements of DSCP FORM 3507. Any nonconformance shall be classified as a major defect.

SECTION J REFERENCE DOCUMENTS

Unless otherwise specified, the issues of these documents are those active on the date of the solicitation or contract.

DSCP FORMS

DSCP FORM 3507 Loads, Unit: Preparation of Semiperishable Subsistence Items

DSCP FORM 3556 Marking Instructions for Boxes, Sacks, and Unit Loads of Perishable and Semiperishable Subsistence

FEDERAL STANDARDS

FED-STD-101 Test Procedures for Packaging Materials

NON-GOVERNMENTAL STANDARDS

AMERICAN SOCIETY FOR QUALITY (ASQ) www.asq.org

ANSI/ASQ Z1.4 Sampling Procedures and Tables for Inspection by Attributes

ASTM INTERNATIONAL www.astm.org

D 1974 Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Boxes

D 4727/D 4727M Standard Specification for Corrugated and Solid Fiberboard Sheet Stock (Container Grade) and Cut Shapes

D 5118/D 5118M Standard Practice for Fabrication of Fiberboard Shipping Boxes