

Individual Combat Rations Update



PAO # U11-455

UNCLASSIFIED

TOPICS

- Meal, Ready-to-Eat™ update
- Meal, Cold Weather™/Long Range Patrol™ (MCW™/LRP™) update
- Modular Operational Ration Enhancement™ (MORE™) update
- First Strike Ration® update

2010 MRE™ Field Evaluation

September 2010		
15	16	17

- **Camp Wilson, California**
- **Mojave Viper Support Detachment**
- **100 Warfighters/day**
- **Three MRE™s/day**

Control	Test
MRE™ XXX	8 test menus 34 new items



MRE™ XXXIII Menu Changes Approved by JSORF 1 February 2011

Entrées & Starches

IN

- Beef Patty, Jalapeno Pepper Jack
- Beef Taco Filling

OUT

- Beef Pot Roast with Vegetables
- Sloppy Joe Filling
- Cornbread Stuffing

MRE™ XXXIII Menu Changes Approved by JSORF on 1 February 2011

Bakery/Snacks

IN

- White Wheat Snack Bread
- Oatmeal Chocolate Chunk Cookie
- Chocolate Pound Cake with Chocolate Filling
- Barbecue Almonds

✓ *Add Variety*
✓ *Increase
Nutritional
Adequacy*

Condiments/Beverages

IN

- Ketchup
- Yellow Mustard
- Dairy Shake, *trans* fat free (TFF)
- Lemon Tea

MRE™ XXXII (2012 date of pack)

- Removal of Hot Beverage Bag from 8 menus

MRE™ XXXIII (2013 date of pack)

- Design menus with newly approved components
- Conduct producibility tests to support technical data
- Transition technical documents to Defense Logistics Agency Troop Support

MRE™ XXXIV (2014 date of pack)

- Coordinate Field Evaluation 2011 (details TBD)

MRE™ Field Evaluation 2011

Entrées/Sides	Sides
Shredded Barbecue Beef	Brown Rice
Beef lo Mein	Seasoned Black Beans
Chicken & Rice	
Vegetarian Chili	
Sausage & Cheese Sandwich	
Vegetarian Taco Pasta	
Vegetarian Tex Mex Pierogies	
Chicken Meatballs in BBQ Sauce	

MRE™ Field Evaluation 2011

Bakery	Snacks	Beverages
Cinnamon Sugar Cookie	Salt & Vinegar Almonds	Beverage Base Fortified w/ Vit D & Fiber
Harvest Grain Muffin Top	Chili Lemon Corn Nuts	
Mocha Pound Cake	Barbecue Corn Nuts	
M & M™ Ranger Bar	Meat Sticks with Curcumin	
Chipotle Tortilla	Pumpkin Seeds	
Reduced Fat/TFF Vanilla Pound Cake	Chocolate Fudge Toaster Pastry	
Chocolate Fudge PopTarts	Fire Roasted Tomato Wheat Thin Stix	
	Werthers®	
	Honey Mustard and Onion Pretzel Nibblers	

MRE™ Field Evaluation 2011

Packaging	Accessories
Alternate (Green) Fiberboard Container	Spoon, Bio-based (100%)
Meal Bag, Improved Packaging Efficiency	
Cardboard Sleeve	



MRE™ Focus for Potential New Items

- ✓ Nutrition
 - Nutrient dense
 - *Trans* fat free

- ✓ Increased Variety/Quality/Stability
 - Novel processing

- ✓ Volume
 - Packaging reduction



Meal, Cold Weather™ (MCW™) Field Evaluation

Location:
Northern Warfare Training Center
Black Rapids, AK



Cold Weather Leadership Course
72 Warfighters/day
17-29 March 2010



Average Temperature: 0° F

3 MCW™/day

Control Ration: 2010 MCW™ production

4 new test menus/25 new components

Future MCW™/LRP™ Menu Changes Approved by JSORF on 1 February 2011

Entrées

IN

- Breakfast skillet
- Pasta w/cream sauce, chicken & asparagus

OUT

- Scrambled eggs, Western style (one meal)
- Beef Stroganoff

Future MCW™/LRP™ Menu Changes Approved by JSORF on 1 February 2011

Soups

IN

- **Low Sodium**
 - **Beef Flavored Noodle Soup**
 - **Chicken Flavored Noodle Soup**

OUT

- **Regular Sodium**
 - **Beef Flavored Noodle Soup**
 - **Chicken Flavored Noodle Soup**

Future MCW™/LRP™ Menu Changes Approved by JSORF on 1 February 2011

Snacks/Cereal

IN

- Filled French Toast
- Corn Bread
- Raisin Nut Mix with Choc Disks
- Fudge Brownie (TFF)
- Granola with Bananas

- ✓ *Add Variety*
- ✓ *Increase
Nutritional
Adequacy*

Fruit/Spreads/Beverages

IN

- Freeze dried strawberries and bananas
- Spicy Cheese and Vegetable spread
- Beverages w/ fiber and Vitamin D
- Hazelnut Hot Cocoa

MCW™ Packaging Change

- Received JSORF approval to change component packaging color from white to tan
 - Decreases lead time
 - Decreases production costs
- This change effective for all current and future contracts
- Vendors are allowed to use up all remaining white colored packaging
- MCW™ meal bag will maintain its white color



Modular Operational Ration Enhancement™ (MORE™)

- Augment combat rations with scenario specific enhancement packs
 - Mitigate Warfighter weight loss
 - Decrease significant loss in cognitive and physical abilities in extreme environments
- Two modular, scenario-specific ration enhancement packs developed include high altitude/cold weather and hot weather
- Coordinated with US Army Research Institute of Environmental Medicine (USARIEM) on the nutritional needs of Warfighters in high altitude/cold weather and hot weather operational environments



MORE™ - Hot Weather Field Evaluation

Location:
Fort Benning, GA

13-17 July 2010



Pre-Ranger Course
55 Warfighters/day

Average temperature: 90°F +
High Humidity

1 MORE™ - Hot Weather/day

Primary Ration: 2010 First Strike Ration®

3 new prototypes

MORE™ - Hot Weather

- 3 prototype pack designs approved by JSORF on Feb 1, 2011
- Transitioned procurement documents to DLA - Troop Support on July 1, 2011

MORE™ - High Altitude/Cold Weather

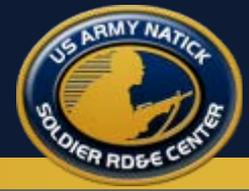
- Transitioned procurement documents to DLA –Troop Support
 - Version 1 - August 2009 (stop gap solution)
 - Version 2 - July 2010 (100% solution)
- Received numerous requests to purchase MORE™ - High Altitude/Cold Weather
 - Navy Seals
 - Special Operations Command
 - Infantry Brigade stationed in Afghanistan

MORE™ – Hot Weather Prototype Packs

Pack 1	Pack 2	Pack 3
Pudding, Chocolate, Caffeinated	First Strike™ Bar (reg size) - Choc	First Strike™ Bar (mini size) - Mocha
Dried Cranberries	Zapplesauce®, Carb fortified	Zapplesauce®, Cinn, Carb fortified
Energy Gel, Mixed Berry	Energy Gel, Lemon Lime	Energy Gel, Orange
Filled Pretzels, Cheddar	Almonds, Smokehouse	Fruit Nut Mix Type III
	Stay Alert Gum, Peppermint	Corn Nuggets
Beverage, Carb Elect. Grape	Beverage, Carb Elect. Lemon Lime	Beverage, Carb Elect. Grape
Beverage, Carb Elect. Orange	Beverage, Carb Elect. Fruit Punch	Beverage, Carb Elect. Fruit Punch
Calories: 1000 80% Carb/3% Pro/17% Fat	Calories: 910 74% Carb/3% Pro/23% Fat	Calories: 1030 72% Carb/4% Pro/25% Fat
Wt: 340 grams (.75 pounds) Volume: 43.9 cubic inches	Wt: 335 grams (.74 pounds) Volume: 44.6 cubic inches	Wt: 352 grams (.77 pounds) Volume: 43 cubic inches



Assault/Special Purpose Improvement Project



MORE™ – High Altitude/Cold Weather Packs

Pack 1	Pack 2	Pack 3
Pudding, Chocolate, Caffeinated	First Strike™ Bar	Cheddar Potato Bacon Soup/Spread
Nut Mix with Dried Fruit	Nut Mix with Chocolate Disks	Zapplesauce®
Energy Gel, Wild Berry	Energy Gel, Lemon Lime	Cracker
Toaster Pastry	Corn Nuggets	Baked Snack Cracker
Cheese Filled Pretzels	Stay Alert Gum	Mini First Strike™ Bar
	Beef Jerky	Beverage, Carb Fortified
	Beverage, Carb Fortified	
Calories: 1160 162g Carb/ 20g Pro/48g Fat	Calories: 1340 194g Carb/30g Pro/49g Fat	Calories: 1130 164g Carb/14g Pro/46g Fat

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First Strike Ration® (FSR™) Update

- Provided support to procurement
- Conducted storage studies
 - Completed short term storage and sensory for new ration components
 - Performing long term storage studies on 40 newly approved components
- Continued support to the transition of 6.2/6.3 developmental components
 - Producibility testing
 - Warfighter testing
 - Document development
- Continued ongoing market survey for new components
- Initiated coordination of an FY12 field evaluation

FSR Focus for Potential New Items

- ✓ Nutrition
 - Nutrient dense
 - High carbohydrate
 - Pureed fruit components
 - Whole grain

- ✓ Performance
 - Caffeinated food components
 - Easily consumed on the go



Thank you!

