



**TECHNICAL REPORT
NATICK/TR-02/014**

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ACCEPTABILITY OF THE CURRENT AND PROPOSED ITEMS IN THE MEAL, READY-TO-EAT

by
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May 2002

Final Report
November 2000 - November 2001

Approved for public release; distribution is unlimited

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REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
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1. REPORT DATE (DD-MM-YYYY) 15-05-2002		2. REPORT TYPE Final		3. DATES COVERED (From - To) November 2000 to November 2001	
4. TITLE AND SUBTITLE ACCEPTABILITY OF THE CURRENT AND PROPOSED ITEMS IN THE MEAL, READY-TO-EAT				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER 643747	
				5d. PROJECT NUMBER D610	
6. AUTHOR(S) Wendy K. Johnson and F. Matthew Kramer				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) US Army Natick Soldier Center U.S. Army Soldier and Biological Chemical Command ATTN: Wendy Johnson, AMSSB-RSS-P(N) Natick, MA 01760-5020				8. PERFORMING ORGANIZATION REPORT NUMBER NATICK /TR-02/014	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT An evaluation of new items for future versions of the Meal, Ready-to-Eat (MRE) was conducted at Fort Drum, NY. The MRE XX was used for comparative purposes. Three groups of soldiers -- members of Alpha, Bravo, and Charlie Companies -- participated in the assessment. The evaluation consisted of distributing the MRE XXs to two of the Companies (Alpha and Bravo), and distributing the test MREs to the remaining company. Surveys concerning the acceptability of new and current MRE items were collected daily.					
15. SUBJECT TERMS ACCEPTABILITY ENTREES EVALUATION FIELD TRAINING EXERCISES MRE(MEAL READY TO EAT) MENU QUESTIONNAIRES FIELD FEEDING SURVEYS DATA COLLECTION FIELD EVALUATION RATIONS MEAL CARDS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES 107	19a. NAME OF RESPONSIBLE PERSON Wendy K. Johnson
a. REPORT U	b. ABSTRACT U	c. THIS PAGE U			19b. TELEPHONE NUMBER (Include area code) 508-233-4030

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Preface

This report details a field evaluation performed as part of the Individual Combat Ration Program. The primary purpose of the current evaluation is to test candidate items in the field to discover if they are suitable for future versions of the MRE ration, and also to evaluate the items in the current MRE XX. The evaluation took place at Fort Drum, NY with the 2/87 Light Infantry, 10th Mountain Division (Alpha, Bravo and Charlie companies) during regular field training.

Acknowledgements

This work was made possible through assistance from personnel at the Natick Soldier Center (NSC). Thanks to Max Biela, Operational Forces Interface Group (OFIG) representative, who acted as a liason with the troops before and during the evaluation. Also thanks to L. L. Leshner, Ruth Roth, Adam DiChiara, Ann Curran, Ellen Merrill, Justine Federici, Shivaun Roach, and Anthony Szajna of the Product Optimization and Evaluation Team. Thanks to Judith Aylward, Sue Harrington, Julie Edwards, Leslie Green, Julie Amati, Michelle Richardson, and Melvin Williams of the Combat Feeding Directorate; Christina Falco, SPC Anthony Rogers, and LTC Ann Grediagan of the US Army Research Institute of Environmental Medicine (USARIEM); Eric LeBlanc of Pennington Biomedical Research Center, and Dawn Leason of the Defense Supply Center (Philadelphia). Finally we express gratitude to the officers and soldiers of Alpha, Bravo and Charlie companies of the 2/87 Light Infantry, 10th Mountain Division for their support and cooperation through all phases of the evaluation, from initial planning through final completion of data collection.

INTRODUCTION

The standard military ration for the individual warfighter is the Meal, Ready-to-Eat (MRE). Since its introduction, the MRE has been continuously improved and its variety has increased to the point where MRE XX includes 24 menus, four of which are vegetarian. The main component of each MRE menu is the entree. The entrees are fully cooked items which may be heated with the Flameless Ration Heater (FRH) and eaten with the enclosed spoon.

The primary purpose of the current evaluation is to test candidate items in the field to discover if they are suitable for future versions of the MRE ration, and also to evaluate the items in the current MRE XX. To this end, the participating soldiers give an acceptability rating for each MRE item they eat. Further questions about heater use, sandwich assembly, MRE spreads, beverages, and spices give insight into their use of the MRE and how well the different menu components go together.

A description of the MRE XX menus can be found in Appendix A. In the Concept MRE group, 10 Concept MRE entrees were evaluated, including two meatless entrees (Manicotti and Lasagna), two entrees which could be assembled into sandwiches (BBQ Pork Rib and Tuna Salad), one pocket sandwich (Pepperoni Pocket), and one breakfast entree (Spanish Omelet). Other concept MRE items include a starch (Plain Snack bread), a soup (Hearty Clam Chowder) a carbohydrate fortified applesauce ("Zapplesauce"), two new spices (Cayenne pepper and Mrs. Dash), and dessert items (Peanut Butter M&Ms, Crispy M&Ms, Pumpkin Pound cake, Almond Poppy Pound cake, and a Chocolate Mint cookie). Peanut butter and jelly are included in some MRE XX menus, but separately. In the past, the soldiers have often recommended putting peanut butter and jelly in the same menu. For this evaluation, both peanut butter and jelly were included in some Concept MRE menus. The peanut butter and jelly pack are different products than the current MRE Peanut butter and MRE jelly. MRE XX items were used to round out the Concept menus (see Appendix C for a description of the Concept menus).

METHODS

The evaluation took place from 1 - 7 November 2000 at Fort Drum, NY with the 2/87 Light Infantry, 10th Mountain Division (Alpha, Bravo and Charlie companies) during regular field training. The weather during the evaluation was cold, with occasional rain showers. Each of the three companies was assigned to a certain ration group: Alpha received the MRE XX case As, Bravo received the MRE XX case Bs, and Charlie received the Concept MRE.

The company commander, first sergeants and platoon sergeants were briefed on the evaluation requirements before field training. At this time the logistics of the evaluation were discussed and company briefings were scheduled. The three companies were briefed separately, at a time and place convenient for them, before being deployed. The soldiers were briefed on the MRE program, the entrees they would receive during that field training exercise, and what would be required of them. At this time body weights were taken, and the soldiers filled out a Background Questionnaire (Appendix B).

The soldiers received one test MRE, a plastic bag and an MRE mealcard per day for the midday meal. They were instructed to fill out the enclosed mealcard (Appendix C) soon after eating the meal. The soldiers were also instructed to collect all of their MRE trash in the plastic bag to be returned to their data collector at the morning meal.

The data collection staff met with the subjects each morning to distribute the day's MREs and to collect the mealcards from the day before. For the Concept group, Menu distribution was controlled by the data collectors in order to ensure that sufficient data was collected for each menu and that each soldier sampled as many different menus as possible. Even so, because there were seven test days and ten different Concept MRE menus no one subject sampled all of the Concept menus. For the MRE XX groups, MRE menus were distributed randomly within companies. On the last day of the evaluation, the Final Questionnaire was administered (Appendix D).

RESULTS

BACKGROUND

The same Background Questionnaire was completed by soldiers from all three companies. The demographic data is shown in Table 1. Half of the soldiers (50.00%) had been in the service for a year or less, and 41.73% had been in the service for 2 to 10 years. The mean age was 24.35 years, and ranged from 18 to 43. Most of the soldiers were enlisted Infantrymen. The largest race/ethnic group was white, followed by black and Hispanic. Over half of these soldiers grew up in the Mid Atlantic or North Central United States.

TABLE 1. DEMOGRAPHICS

Time in Service	Percent	$\bar{x} = 3.28$
less than 1 year	20.87	
1 year	29.13	
2 to 10 years	41.73	
more than 10 years (max: 23)	7.87	
Age	Percent	$\bar{x} = 24.35$
18 -- 22	48.64	
23 -- 31	42.02	
32 -- 43	9.34	
Rank	Percent	
O1 - O3	5.06	
E1 - E3	28.79	
E4 - E6	63.04	
E7 - E8	3.11	
Race/Ethnicity	Percent	
White	71.21	
Black	12.06	
Hispanic	9.73	
Asian/Pacific Islander	3.11	
American Indian/Alaskan Native	1.95	
Other	1.95	Other: Basque, Indian/African American, Italian/Mexican, Puerto Rican/African American (missing = 1).

TABLE I. DEMOGRAPHICS

(Cont'd)

MOS	Percent	
11A	4.28	Infantry
11B	85.60	Infantryman
11C	5.06	Indirect Fire Infantryman
11M	0.39	Fighting Vehicle Infantryman
"11"	0.39	Infantry
12B	0.39	Combat Engineer
13F	0.78	Fire Support Specialist
54B	0.39	Chemical Operations Specialist
91B	0.78	Medical Specialist
92	1.17	Unit Support Specialist
Region	Percent	
Middle Atlantic	22.96	
North Central	18.29	
Pacific	12.84	
South Atlantic	12.06	
South Central	10.89	
New England	9.34	
Mountain	6.23	
Other	7.39	Other: Puerto Rico (4), Germany (2), Philippines (2), West Germany, Central America, Columbia, Jamaica, Mexico, Nicaragua, Canada, "Overseas," South America (missing = 2).

Field Rations: Nearly all of these soldiers (98.05%) report that they usually receive MREs for lunch in the field. Most receive MREs once (42.41%) or twice (45.91%) daily. A minority (11.67%) report typically receiving this ration three times per day.

Seventy percent report that they receive **group rations** for Breakfast (71.60%) and for Dinner (70.59%), although about a quarter receive MREs for these meals. Half (50.82%) report that they receive group rations twice per day, and 45.90% receive them once per day. A minority (3.28%) never receive group rations in the field.

Hot beverages: Three-quarters (77.91%) report that hot water suitable for making beverages is “never” or “seldom” available in the field (Figure 1). Almost all (95.33%) report that hot coffee is available in the field at least sometimes. Most (84.44%) report that they “never” or “seldom” heat water for beverages in the field.

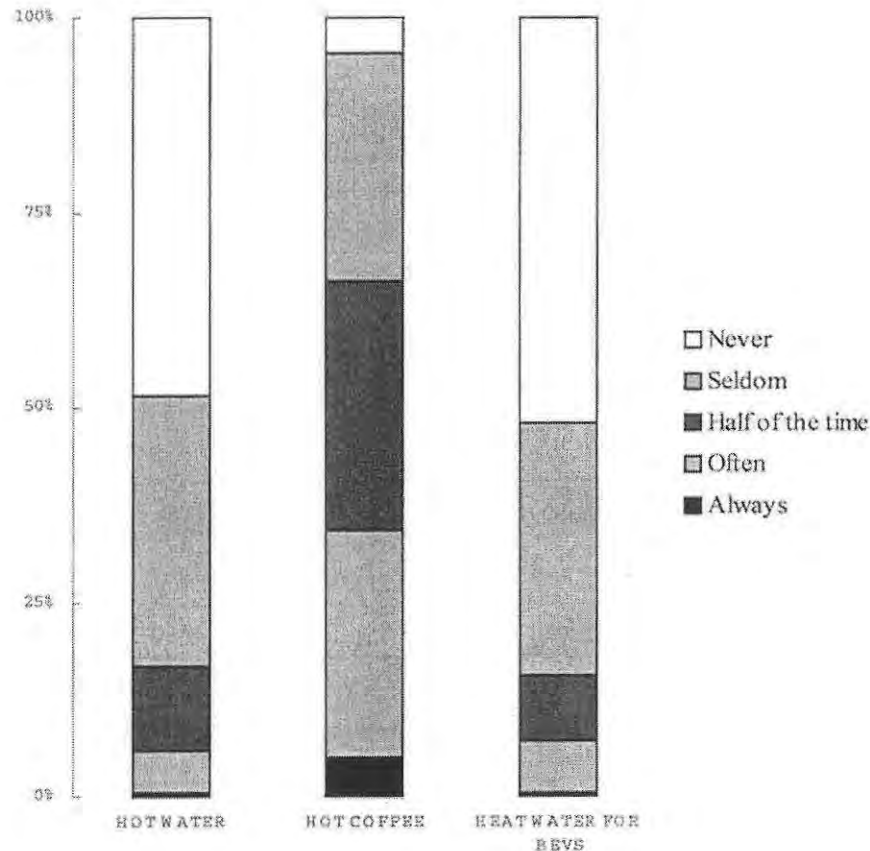


Figure 1. Hot coffee / hot water available in the field.

Of those who do heat water for beverages ($n = 123$), half heat it using a personal stove (50.5%) and a third use heat tabs (32.4%). Ten percent use the MRE heater (9.9%; “other” 7.2%). Nearly all (97.0%) heat water in a canteen cup, but two report that they heat water in an accessory bag.

All subjects (n = 257) were asked what they do with hot water when they have it in the field (Figure 2; multiple choices are possible). Half report that they use hot water to make Cocoa or Coffee, and over a third choose to use it to shave. Less than ten percent choose to use hot water to make the Apple Cider, the Tea bag, or the Tea with lemon beverage mix (of these three, only the Tea bag would require the use of hot water).

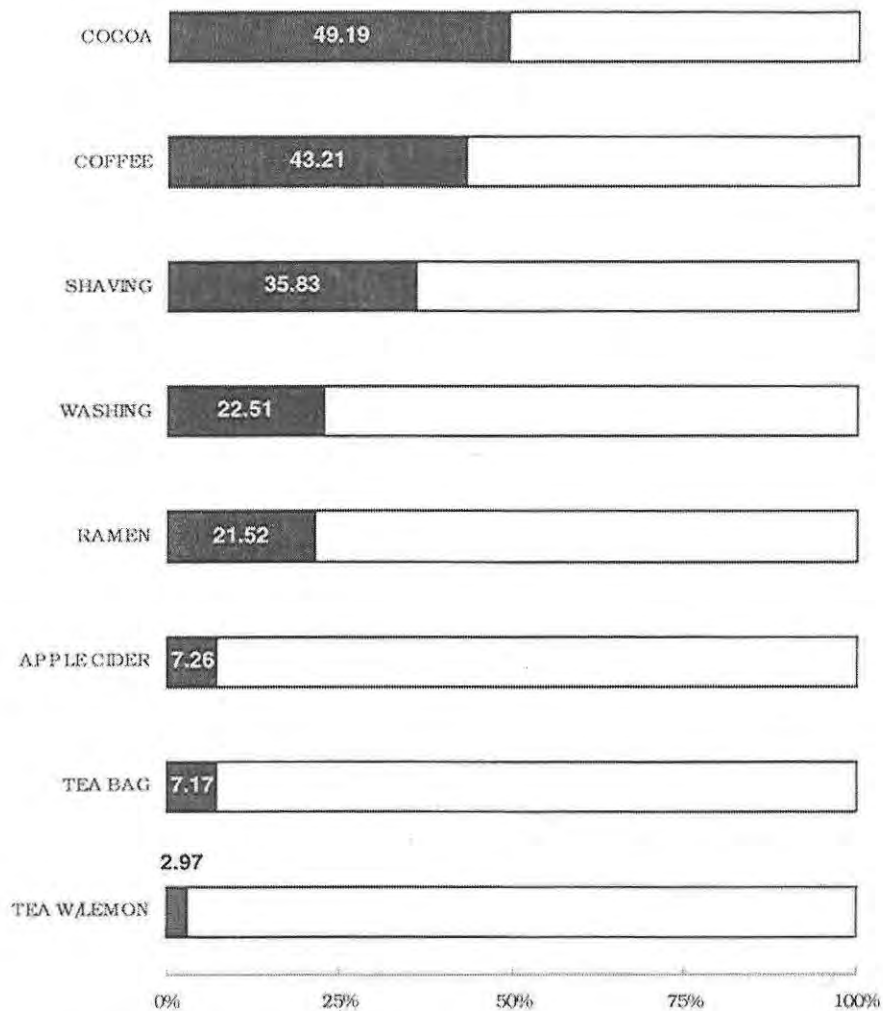


Figure 2. Uses for hot water in the field.

Spices: When asked about their current use of the MRE Hot sauce in the field, (Table 2) the soldiers were split between using it “never/almost never” (38.91%) and “every/almost every entree” (38.52%).

Table 2. How often use the MRE Hot sauce (Tabasco).

	Percent
Never	26.46
Almost Never	12.45
One in Three Entrees	10.89
Every Other Entree	4.28
Two in Three Entrees	6.61
Almost Every Entree	16.34
Every Entree	22.18

Because the Cayenne pepper and Mrs. Dash are not included in the current MREs, the soldiers were asked whether or not they had tried any of these spices. Most (83.33%) have tried the Hot sauce, 42.11% have tried Mrs. Dash, and 35.37% have tried Cayenne pepper.

Half (54.47%) wish to have Hot sauce in “every/almost every” entree (Table 3). Forty percent (43.29%) would like to have Cayenne pepper “never/almost never.” Forty percent (43.35%) would like to have Mrs. Dash in “every/almost every” entree.

Table 3. How frequently would you like to have this spice?

	Hot Sauce	Percent Cayenne	Mrs. Dash
Never	16.67	38.96	34.76
Almost Never	7.72	4.33	2.15
One in Three Entrees	10.16	7.79	6.87
Every Other Entree	4.88	7.79	6.44
Two in Three Entrees	6.10	7.79	6.44
Almost Every Entree	11.38	9.09	10.73
Every Entree	43.09	24.24	32.62

MRE Sandwiches: The MRE XX does not contain any sandwiches, but the Concept MRE includes as entrees two different sandwich types (ready-made “pocket” sandwiches and items which can be assembled into a sandwich). When asked how much they expect to like such sandwiches as part of an MRE, the mean rating for the sandwich components (7.12) and the ready-made sandwich (6.96) both correspond to “like moderately” on the 9-point hedonic scale. Over three-quarters expect to like the ready-made sandwiches (77.05%) and the sandwich components (82.10%) at least “slightly.”

When asked how often they would have time to fix a sandwich, the most frequently given response is “half of the time” they are in the field (Table 4). The rest of the responses are divided between less than half of the time (31.13%), and more than half of the time (28.40%).

Table 4. Time to fix a sandwich.

Frequency	Percent
Never	3.89
Seldom	27.24
Half of The Time	40.47
Often	24.51
Always	3.89

MRE Spreads: Currently, each MRE includes one spread, either Plain Cheese, Jalapeno Cheese, Peanut Butter, or Jelly. Issuing Peanut butter and Jelly in the same MRE has been frequently requested by soldiers in the past, and is included as an option in this evaluation. The soldiers described the proportions they would prefer to see in a case of MREs (12 menus per case) if they could have no more than one spread per menu. The four current MRE spreads are listed, as well as Peanut butter and Jelly as the fifth option, and each option is followed by a scale of 0 (zero) to 12. Those who responded correctly (their responses added up to no more than 12 spreads) are included in the following analyses (n = 224). Nearly all (93.8%) of these soldiers would like to have twelve spreads per case of MREs, although three soldiers would not want any spreads in a case of MREs. The spread selected by the most soldiers is the Jalapeno Cheese (Table 5). The Peanut butter & Jelly combination and the Plain Cheese are also frequently selected.

Table 5. How many soldiers included each spread in a case of MREs.

Spread	Percent
Jalapeno Cheese	79.0
Peanut butter & Jelly	73.8
Plain Cheese	72.5
Peanut butter	24.6
Jelly	22.3

The 224 questionnaires resulted in 102 different combinations of the five MRE spreads. Ninety-seven of these combinations represent less than ten soldiers each, and most of these represent one soldier. The combinations selected by more than ten soldiers each are included in the following table. Peanut butter and Jelly as individual items do not appear in these combinations, and are therefore not included in Table 6.

Table 6. Combinations and proportions of spreads selected for a case of MREs.

	Spread Combinations			Soldiers	
	Jalapeno Cheese	Plain Cheese	Peanut butter and Jelly	N	% of Total
Proportions per case of 12 MREs	12	0	0	30	13.4
	6	6	0	22	9.8
	4	4	4	16	7.1
	0	0	12	13	5.8
	6	0	6	13	5.8
				94	41.9

When the proportions are disregarded, other patterns emerge, but Cheese remains popular. Half of the soldiers (52.2%) chose both kinds of cheese, 37.1% chose only one kind of cheese, and, of these, the choice was usually Jalapeno (72.3%). Ten percent (10.7%) did not choose either cheese spread. As for the peanut butter and/or jelly options, 44.2% chose only one option, and, of these, the choice was usually the Peanut butter and Jelly combination (88.9%). Almost thirty percent (29.5%) did not select any of the three peanut butter and/or jelly options.

When the data are collapsed into “Cheese” and “Peanut butter/Jelly” categories, regardless of type, there are 20 different combinations. Most combinations represent ten soldiers or less. Those that represent at least ten soldiers are shown in Table 7.

Table 7. Combinations and proportions of spread types desired in a case of 12 MREs.

	Spread Combinations		Soldiers
	Cheese	Peanut butter and/or Jelly	%
Proportions per case of 12 MREs	0	61	27.2
	6	46	20.5
	4	29	12.9
	12	20	8.9
	3	11	4.9
		167	74.4

The soldiers were also asked to rate how much they expect to like or dislike receiving the peanut butter and jelly combination in their MRE. The mean acceptability rating is (7.20) falls between “like moderately” and “like very much” on the 9-point scale. Most (80.2%) expect that they would like this combination at least “slightly.”

Flameless Ration Heater: About two-thirds of these soldiers report that they use more than half of the FRHs they receive with their MRE entrees. A quarter use less than half of the FRHs they receive.

Table 8. How often use the FRH in the field.

Frequency	Percent
Never	2.72
Almost Never	8.95
One in Three Entrees	13.62
Every Other Entree	8.95
Two in Three Entrees	9.73
Almost Every Entree	29.57
Every Entree	26.07

Forty percent (40.1%) report that they throw away unused FRHs (less than half of these activate them first), while others "save" (21.0%), "always use" (17.9%), or "give or trade" (14.0%) them away.

Supplements: Almost half (47.50%) of these soldiers report bringing some **Performing Enhancing Products** to the field (Appendix E). Energy Bars (Power bars and Hooah bars) and Electrolyte drinks (Gatorade) are the most popular items for the field (Table 9). Eight of the soldiers report bringing Protein Drinks to the field (Carnation, GNC, Myoplex, Protein shake mix, Ripped Fuel, and Waze Whey Protein).

Table 9. Bring to the field: Performing enhancing products.

	% Yes	N
Energy Bars	20.4	255
Electrolyte Drinks	20.0	255
Protein Drinks	3.2	253
Other	15.3	242
None	62.5	251

Less than twenty percent (17.9%) of these soldiers report bringing **Vitamins and Minerals** to the field (Table 10). Most of these brought Vitamins, particularly Multi-vitamins (15), as well as Vitamin A (2), Vitamin B (2), Vitamin B12 (2), Vitamin C (6), and Vitamin E (Appendix E). Seven soldiers reported bringing minerals to the field, and listed "Minerals," Potassium pills, and Zinc as well as Multi-vitamins in this category.

Table 10. Bring to the field: Vitamins and Minerals.

	% Yes	N
Vitamins	11.7	256
Minerals	2.8	252
Other	9.8	245
None	82.1	252

MRE MEALCARDS

Mealcards were filled out for every MRE meal eaten. These cards were used to gather data on intake (which is reported elsewhere) and acceptability for each item the soldiers ate or tasted, as well as information about overall acceptability and heater use. For the Concept MRE group, there were additional questions specific to the meal they received.

There were 24 MRE XX **entrees** and 10 Concept entrees available during this evaluation (see Table 11). All but two have mean ratings that fall on the positive end of the scale: fourteen of these have mean ratings that fall between "like moderately" and "like very much" and eighteen have mean ratings which fall between "like slightly" and "like moderately." The remaining two entrees have mean ratings which fall between "neither like nor dislike" and "like slightly." There were, it should be noted, low n's (less than 20) for five of the MRE XX entrees (Pasta with Vegetable in Tomato Sauce, Beef with Mushrooms, Beef Teriyaki, Chicken with Rice, Boneless Pork Jamaican, and Pork Chow Mein).

A oneway analysis of variance (ANOVA) shows that there are differences between the ten Concept entrees ($p < 0.01$). Post hoc analysis shows that Chicken with Oriental Vegetables has a significantly lower mean rating than all of the other Concept entrees, except Dirty Rice with Sausage and Tuna Salad. Dirty Rice with Sausage has a significantly lower mean rating ($p < 0.05$) than Pot Roast with Vegetables, Manicotti, Lasagna, and the Pepperoni Pocket. The Tuna Salad entree has a significantly lower mean rating ($p < 0.05$) than Pot Roast with Vegetables and Manicotti.

Of these three Concept entrees with low ratings, however, Chicken with Oriental Vegetables is the only entree with a neutral mean rating ($x < 6.00$). Dirty Rice with Sausage and Tuna Salad both have mean ratings which fall above the neutral point ($x > 6.00$). And, as can be seen on Table 11, Dirty Rice with Sausage has a higher rank than 2 of the MRE XX entrees, and Tuna Salad has a higher rank than 8 of the MRE XX entrees.

Table 11. Mean Acceptability Ratings, Entrees.

FOOD NAME	X	N
Pot Roast with Vegetables ✓	7.81	50
Manicotti ✓	7.77	47
Lasagna ✓	7.68	50
Pepperoni Pocket ✓	7.58	43
Beef Stew	7.50	22
Beef Ravioli	7.48	28
Meatloaf with Gravy	7.48	28
BBQ Pork Rib ✓	7.41	35
Chili with Macaroni	7.37	22
Chicken with Salsa	7.35	20
Pasta w/Veg Tomato Sauce	7.16	*19
Spaghetti with meatsauce	7.14	29
Pizza Wrap ✓	7.12	51
Grilled Chicken Breast	7.03	23
Chicken with Noodles	6.96	23
Chicken with Rice	6.85	*17
Chicken with Cavatelli	6.85	30
Spanish Omelet ✓	6.79	45
Country Captain Chicken	6.70	28
Boneless Pork Jamaican	6.69	*16
Beef with Mushrooms	6.68	*19
Beef Steak	6.61	22
Cheese Tortellini	6.47	30
Tuna Salad ✓	6.41	39
Beef Franks	6.40	30
Turkey Breast with Gravy	6.38	29
Chicken Tetrazzini	6.32	29
Bean and Rice Burrito	6.29	22
Chicken with Thai Sauce	6.27	24
Beef Teriyaki	6.24	*19
Dirty Rice with Sausage ✓	6.14	49
Pork Chow Mein	6.10	*15
Pasta with Veg in Alfredo Sauce	5.86	22
Chicken with Oriental Veg ✓	5.16	41
Concept MRE item ✓		*N < 20

Of the twelve **starch** items, 4 have mean ratings which fall between “like moderately” and “like very much” on the 9-point scale (Table 12). Six more have means which fall between “like slightly” and “like moderately” (one of these, Chow Mein Noodles, has a low n). Of the remaining two, Buttered Noodles falls between “neither like nor dislike” and “like slightly” and White Rice falls between “dislike slightly” and “neither like nor dislike.”

Table 12. Mean Acceptability Ratings, Starches.

FOOD NAME	X	N
Pretzels	7.37	33
Snack bread, Wheat	7.22	140
Western Beans	7.01	22
Potato Sticks	7.00	23
Snack bread, Plain ✓	6.89	38
Mexican Rice	6.86	38
Crackers, Plain	6.76	203
Crackers, Vegetable	6.36	206
Chow Mein Noodles	6.26	*17
Yellow & Wild Rice Pilaf	6.15	20
Buttered Noodles	5.32	55
White Rice	4.91	70
Concept MRE item ✓		*N < 20

The Plain Crackers and the Vegetable Crackers have means which fall between “like slightly” and “like moderately.” Paired t-tests show that these means are not significantly different ($n = 156$; $p > 0.05$) but they approach significance ($p = 0.06$).

The Concept MRE group received both the Wheat Snack bread (MRE XX) and the Plain Snack bread (Concept MRE). Thirty-four soldiers in this group rated both types of Snack bread and, according to a paired t-test, the mean rating for Wheat Snack bread ($x = 7.78$) is significantly higher ($p < 0.01$) than the mean rating for Plain Snack bread ($x = 6.79$). Both of these items have positive mean ratings ($x > 6.00$).

There were two **soups** available (Table 13). The Concept soup, Hearty Clam Chowder (part of the Pepperoni Pocket menu) has a mean rating which falls near “like moderately.” The current soup, Minestrone (part of the MRE XX Grilled Chicken Breast menu and the Concept MRE Tuna Salad menu) has a mean rating which falls between “dislike slightly” and “neither like nor dislike.” The Chowder and Minestrone data were compared using a group t-test which shows that the means are significantly different ($p < 0.05$).

Table 13. Mean Acceptability Ratings, Soups.

FOOD NAME	X	N
Hearty Clam Chowder ✓	7.04	37
Minestrone Soup	4.75	51
Concept MRE item ✓		*N < 20

All of the six **beverages** are MRE XX items and all have mean ratings which fall on the positive side of the scale (Table 14). The MRE Beverage base was treated as one item, regardless of flavor. The Beverage base and the Cocoa have mean ratings which fall between “like moderately” and “like very much,” and the Coffee, Apple Cider, and Lemon Tea have mean ratings which fall between “like slightly” and “like moderately.” (Any mean which represents fewer than ten soldiers is not included in the table.)

Table 14. Mean Acceptability Ratings, Beverages.

FOOD NAME	X	N
Beverage Base	7.18	119
Cocoa	7.15	120
Coffee	6.71	53
Apple Cider	6.69	37
Lemon Tea	6.56	63

Tea Bag not shown: n = 2

There were five different kinds of **fruit** available (Table 15), including one Concept item, the carbohydrate fortified "Zapplesauce." The term "Fruit" used in the table refers to all other MRE XX fruit (such as pears and peaches). The highest mean rating is for Raspberry Applesauce, which falls near "like very much" on the scale. The remaining items all fall between "like moderately" and "like very much."

Table 15. Mean Acceptability Ratings, Fruit.

FOOD NAME	X	N
Raspberry Applesauce	8.06	74
Fruit	7.96	111
Spiced Apples	7.93	20
Applesauce	7.53	29
Zapplesauce ✓	7.25	44
Concept MRE item ✓		*N < 20

The fruit items available in the Concept MREs (Zapplesauce, Raspberry Applesauce, and Fruit) were compared using a Oneway ANOVA and found to be significantly different ($p < 0.01$). According to the post hoc tests, the Zapplesauce ($x = 7.25$) has a significantly lower rating ($p < 0.01$) than both the Fruit ($x = 8.07$) and the Raspberry Applesauce ($x = 8.09$). All of the mean ratings, including the mean rating for Zapplesauce, fall on the positive end of the scale. The actual difference between the mean rating for Zapplesauce and the other mean ratings is less than a point.

In the **Miscellaneous** category there were seven items (including the three spices), all of which have positive mean ratings (Table 16). The mean ratings for the spices and the sugar fall between “like moderately” and “like very much.” The mean ratings for the remaining items fall between “like slightly” and “like moderately.”

Only the Concept group received all three spices, therefore this group was separated out for comparison testing. Seventy percent (72.2%) of the Concept group used at least one of the three types of spice available in the MREs over the course of the evaluation. Overall, half (53.3%) used Hot sauce, 36.7% used Mrs. Dash, and 22.2% used the Cayenne pepper. A Oneway ANOVA shows that there are no significant differences ($p > 0.05$) between the mean ratings for Mrs. Dash ($x = 7.71$), Cayenne pepper ($x = 7.35$), and Hot sauce ($x = 7.15$).

Table 16. Mean Acceptability Ratings, Miscellaneous.

FOOD NAME	X	N
Mrs. Dash ✓	7.71	35
Cayenne Pepper ✓	7.35	23
Hot Sauce	7.27	131
Sugar	7.21	87
Gum	6.93	184
Salt	6.57	105
Creamer	6.47	64
Concept MRE item ✓		*N < 20

There are six **spreads** available during the evaluation, and all have positive mean ratings (Table 17). The items labeled "Squeezers" specify the Peanut butter and Jelly Concept items which were packaged together but rated separately. The Jalapeno Cheese received the highest rating of all the spreads ("like very much"). The Plain Cheese, the Squeezer Peanut butter and the Squeezer Jelly all have ratings which fall between "like moderately" and "like very much." The MRE Peanut butter and MRE Jelly have mean ratings which fall between "like slightly" and "like moderately."

A Oneway ANOVA ($p < 0.01$) shows that these means are significantly different. The post hoc tests show that the mean rating for the MRE Jelly is significantly higher than the mean rating for the MRE Peanut butter, but is significantly lower than the mean ratings for all of the other spreads. The mean rating for the MRE Peanut butter is significantly lower than the mean ratings for all of the other spreads. There are no significant differences between the mean ratings for Jalapeno Cheese, Plain Cheese, Squeezer Peanut butter and Squeezer Jelly.

Table 17. Mean Acceptability Ratings, Spreads.

FOOD NAME	X	N
Cheese, Jalapeno	8.14	154
Cheese, Plain	7.74	123
Squeezers: Jelly ✓	7.65	79
Squeezers: Peanut Butter ✓	7.64	79
MRE Jam/Jelly	6.79	123
MRE Peanut Butter	6.23	125
Concept MRE item ✓		*N < 20

In the **Dessert/snack** category there are five Concept and 22 MRE XX items available in the MREs (Table 18). Five of these have mean ratings which fall between “like moderately” and “like very much” on the scale. Twenty items have means which fall between “like slightly” and “like moderately.” The remaining 3 items fall between “neither like nor dislike” and “like slightly.” The Marshmallow Treat, Shortbread Cookie, Chocolate Sports Bar, Orange Pound Cake, and Graham Treat all have small n’s. (Any mean which represents fewer than ten soldiers is not included in the table.)

Table 18. Mean Acceptability Ratings, Desserts/snacks.

FOOD NAME	X	N
M&Ms, Peanut Butter ✓	8.71	42
M&Ms, Crispy ✓	8.54	46
Marshmallow Treats	8.26	*19
Pound Cake, Pumpkin ✓	8.22	44
Chocolate Covered Cookie	8.11	28
Shortbread Cookie	7.89	*18
Toasted Peanut Butter Crackers	7.83	26
Toaster Pastry	7.82	62
Fruit filled bar	7.78	91
Pound Cake, Almond Poppy ✓	7.76	41
Pound Cake, Pineapple	7.70	63
Chocolate Mint Cookie ✓	7.68	41
Granola Bar	7.60	102
Peanut Brittle Bar	7.59	88
Pound Cake, Lemon	7.57	30
Fig bar	7.50	74
Cheese & PB Crackers	7.45	47
Candy	7.37	158
Beef Jerky	7.28	23
Pound Cake, Vanilla	7.18	39
Pound Cake, Fudge Brownie	7.14	47
Pound Cake, Orange	7.08	*13
Chocolate Sports Bar	7.06	*16
Raisin Nut Mix	6.60	20
Dry Roasted Nuts	6.55	67
Pound Cake, Chocolate Mint	6.20	20
Concept MRE item ✓		*N < 20

Graham Treat not shown: n = 6

Each MRE menu was also given a rating on the same 9-point scale for the acceptability of the **overall** meal (Table 19). Seven of the Concept menus and two of the MRE XX menus have mean ratings which fall between “like moderately” and “like very much.” Sixteen MRE XX menus and one Concept menu have mean ratings which fall between “like slightly” and “like moderately.” Six MRE XX menus and two Concept menus have mean ratings which fall between “neither like nor dislike” and “like slightly.”

Table 19. Like/dislike MRE menu.

MENU	X	N
Manicotti ✓	7.77	48
Pepperoni Pocket ✓	7.63	43
Pot Roast with Vegetables ✓	7.62	53
Lasagna ✓	7.54	52
BBQ Pork Rib ✓	7.44	36
Pizza Wrap ✓	7.23	53
Beef Ravioli	7.06	34
Spanish Omelet ✓	7.04	46
Meatloaf with Gravy	7.03	30
Chicken with Noodles	6.96	27
Chicken with Cavatelli	6.89	36
Spaghetti with meatsauce	6.71	31
Beef Stew	6.60	30
Chili with Macaroni	6.60	30
Chicken Tetrazzini	6.53	36
Boneless Pork Jamaican	6.42	24
Chicken with Salsa	6.35	26
Grilled Chicken Breast	6.25	32
Chicken with Rice	6.17	24
Beef with Mushrooms	6.15	27
Beef Franks	6.11	35
Chicken with Thai Sauce	6.11	27
Turkey Breast with Gravy	6.09	34
Dirty Rice with Sausage ✓	6.04	54
Country Captain Chicken	6.00	35
Pasta with Veg Tomato Sauce	6.00	31
Cheese Tortellini	5.94	35
Chicken with Oriental Veg ✓	5.75	44
Tuna Salad ✓	5.71	42
Bean and Rice Burrito	5.66	32
Beef Steak	5.64	28
Pasta with Veg in Alfredo Sauce	5.63	30
Pork Chow Mein	5.18	28
Beef Teriyaki	5.13	23
Concept MRE item ✓		

The frequency distribution of the overall ratings for each menu was examined to see if the means accurately reflect the actual ratings. It is expected that the most commonly given ratings will be clustered around the mean rating, but three of the menus had distributions which differ from the expected pattern (Figure 3). The Pork Chow Mein, Pasta and Vegetables with Alfredo sauce, and Chicken with Oriental Vegetables menus all have mean ratings which fall between "neither nor" and "like slightly" on the scale, but over half of the ratings for each of these menus fall on the positive end of the scale ("like slightly" or better). Only a minority of the ratings are actually "neither like nor dislike."

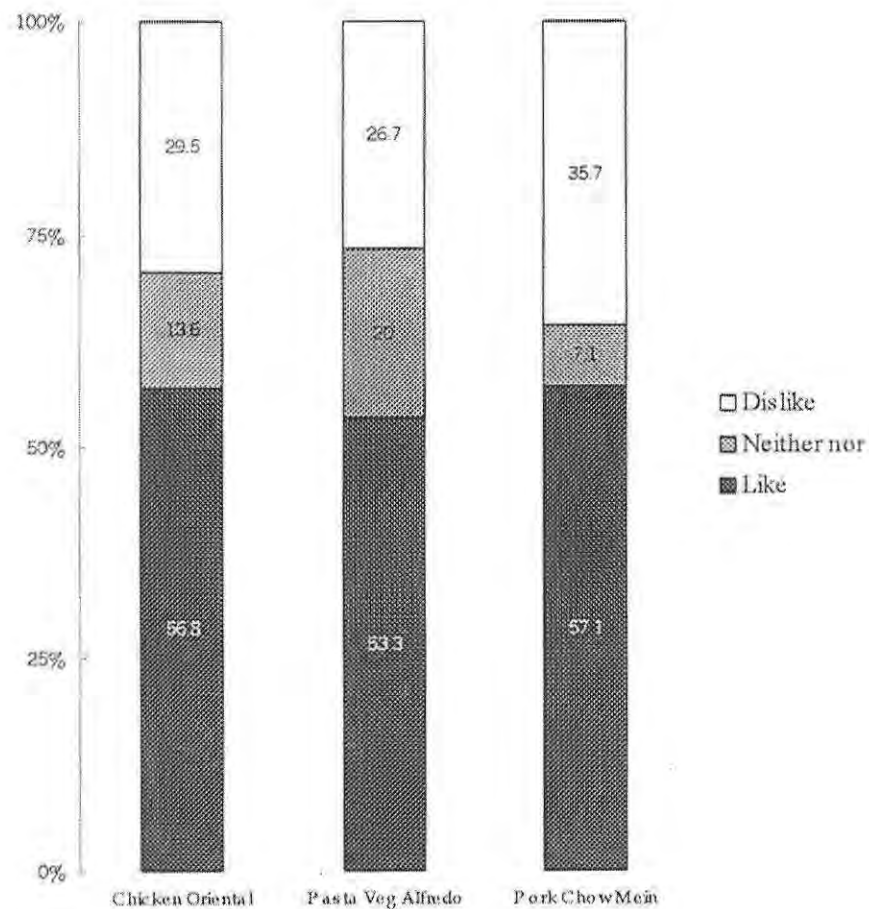


Figure 3. Like/dislike overall MRE menu.

Assembled Sandwiches: There were 2 Concept MRE menus which included, as the main part of the meal, items which could be assembled into a sandwich (Table 20). Seventy-seven mealcards were collected for these menus. Three-quarters (77.92%) of these indicate that the sandwich was assembled.

One of these menus, the BBQ Pork Rib, could be heated and either eaten as a regular entree or as a sandwich, using the enclosed Wheat Snack bread. The soldiers were specifically instructed not to heat the Tuna Salad; this entree could also be eaten directly from the pouch or assembled into a sandwich with the enclosed Plain Snack bread. Nearly ninety percent of the time the soldiers made a sandwich of the BBQ Pork, and about seventy percent of the time they made a sandwich of the Tuna Salad.

Assembled sandwiches were rated on the 9-point acceptability scale. According to a group t-test, the acceptability mean for the BBQ Pork Rib Sandwich (between "like moderately" and "like very much") is significantly higher ($p < 0.01$) than the mean for the Tuna Salad Sandwich (between "like slightly" and "like moderately"). Both of these means fall on the positive end of the 9-point scale.

Table 20. MRE items assembled into sandwiches.

	Percent Assembled	Total N	Mean Acceptability
BBQ Pork rib	88.6	35	7.58
Tuna Salad	69.1	42	6.29

Flameless Ration Heater use: Of all collected mealcards (n = 1250), 15.52% stated that the FRH was not used. Of the 1005 instances of heating, 77.01% of the time the entree and only the entree was heated (n = 804); 73.0% of these entrees were reportedly heated through (n = 660). The mean satisfaction with the temperature of the entree is 4.99 (n = 774) or “slightly satisfied” according to the 7-point scale. (The n varies between questions due to missing data.)

The following table shows which items were heated with the FRH (Table 21). The data is broken down by MRE type because of the different kinds of entrees available in each (sandwiches, soups, traditional entrees), which may effect when and how the FRH is used. Since the soldiers occasionally reported heating more than one item with an FRH, the rows do not add up to 100%. The sandwich menus are included as entrees in the table, but the menus which contain soup were separated out in order to accurately show how often this item was heated.

Table 21. Which items were heated with the FRH.

	N	% Did not use	% Entree	% Spread	% Side dish	Soup %	N
MRE XX A	364	19.23	75.27	3.30	3.30	6.06	33
MRE XX B	397	15.37	77.08	4.03	6.05	N/A	
Concept MRE	489	12.88	77.63	6.95	4.70	66.29	89

FINAL QUESTIONNAIRE

Entree concepts: While the MRE XXs have a traditional MRE entree as the main item in each menu, some Concept MREs have a sandwich instead, and some have a soup in addition to the entree or sandwich. At the end of the evaluation, both groups were asked to rate each kind of main item and how much they would like each with a soup (Table 22).

Overall, "Entree" has the highest mean acceptability, followed by "Sandwich." Both of these options have mean ratings which fall between "like moderately" and "like very much" on the 9-point scale. The "Entree and Soup" and "Sandwich and Soup" options have mean ratings which fall between "like slightly" and "like moderately." The "Soup" option has a neutral mean rating. Only the Concept group rated the "Pocket Sandwich" and "Pocket with Soup" options: the Pocket Sandwich has a mean rating which falls around "like moderately," and the "Pocket and Soup" has a mean rating which falls between "neither like nor dislike" and "like slightly."

Table 22. Acceptability of Main Item Concepts, all respondents.

	Mean	N
Entree	7.48	201
Pocket Sandwich ✓	7.21	*75
Sandwich	7.11	198
Sandwich And Soup	6.32	197
Pocket And Soup ✓	6.32	*75
Entree And Soup	6.19	197
Soup	5.64	195

✓ Concept MRE, only.

Group t-tests comparing MRE XX and Concept MRE (Table 23) show that the MRE XX group has a significantly higher mean rating than the Concept group does for “Sandwich,” “Sandwich and soup,” and “Soup” ($p < 0.05$). For this reason Oneway ANOVAs were done for each group, rather than one Oneway for the entire data set.

The MRE XX mean rating for the “Soup” falls between “neither like nor dislike” and “like slightly.” The mean ratings for “Entree and Soup” and “Sandwich and Soup” fall between “like slightly” and “like moderately.” The mean ratings for “Sandwich” and “Entree” fall between “like moderately” and “like very much.” Oneway analyses show that these means are significantly different ($p < 0.001$). Post hoc tests show that the ratings for both “Entree” and “Sandwich” are significantly higher ($p < 0.01$) than “Soup,” “Entree and Soup,” and “Sandwich and Soup.”

Table 23. Acceptability of Main Item Concepts, by MRE group.

	MRE XX		Concept MRE	
	Mean	N	Mean	N
Entree	7.60	124	7.29	77
Pocket Sandwich	----	----	7.21	75
Sandwich*	7.43	122	6.61	76
Pocket And Soup	----	----	6.32	75
Sandwich And Soup*	6.61	122	5.87	75
Entree And Soup	6.25	122	6.09	75
Soup*	5.88	121	5.24	74

*Means are significantly different between MRE XX and Concept MRE.

The Concept MRE mean ratings for the “Soup” and “Sandwich and Soup” fall between “neither like nor dislike” and “like slightly.” The mean ratings for “Entree and Soup,” “Pocket and Soup,” and “Sandwich” fall between “like slightly” and “like moderately.” The mean ratings for “Pocket Sandwich” and “Entree” fall between “like moderately” and “like very much.” Oneway analyses show that these means are significantly different ($p < 0.001$). Post hoc tests show that the mean rating for “Entree” is significantly higher ($p < 0.05$) than those for “Entree and Soup,” “Sandwich and Soup,” and “Soup.” The mean rating for “Pocket” is significantly

higher ($p < 0.05$) than those for “Sandwich and Soup” and “Soup.” The mean for “Sandwich” is significantly higher ($p < 0.05$) than that for “Soup.”

Sandwiches: Most of the respondents would like to have a sandwich at least some of the time (94.8%) they have an MRE. Half (50.3%) wish to have a sandwich in a third of the MREs, 21.5% would like to have a sandwich for every other entree, and the rest of the respondents would like to have a sandwich for two in three (13.3%) or for every (8.7%) entree.

Over three-quarters (88.5%) say that they would make a sandwich in the field. The most frequently given reason for not making a sandwich ($n = 23$) is the time involved to prepare it (15). When asked to estimate how often they would have enough time to assemble a sandwich in the field (Figure 4), forty percent responded “half of the time.” The rest of the responses were split between those who estimate that they would “seldom” or “never” have enough time, and those who estimate that they would “often” or “always” have enough time. This is consistent with the Background Questionnaire data. The Concept MRE group ($n = 75$) was given the choice between the two types of sandwiches. Most (80.0%) preferred a pocket sandwich and the rest preferred receiving sandwich components in their MRE.

Spice: The Concept MRE group was asked how often they would like to have each of the three spices in their MRE (Table 24). Half would like to have the Hot sauce in “every MRE.” A third would like to have Cayenne pepper in “every” MRE and half would like to have Mrs. Dash in “every” MRE. These responses are consistent with the Background Questionnaire data.

Table 24. How often would like to receive the spice in an MRE.

	% Hot Sauce	% Cayenne	% Mrs. Dash
Never	14.86	23.29	10.53
One in Three	17.57	13.70	7.89
Every Other	4.05	10.96	15.79
Two in Three	8.11	17.81	13.16
Every Entree	55.41	34.25	51.32

Beverages: The soldiers were asked to describe how many of each MRE beverage they would prefer to see in a case of MREs. The six MRE beverages were listed on the questionnaire, each followed by a scale of 0 (zero) to 7 with a space for write-in responses. Most of the responses given follow the scale, but higher values were also written-in. There were no limits on how many beverages could be included in a case of MREs.

Of those who have responses for each of the beverages ($n = 149$), there are 118 combinations of the beverages, none of which represents more than 5 subjects. However, when the number of each beverage per case is disregarded, the number of different beverage combinations is reduced to 28. The combination that represents the most subjects (48) is to include each of the six beverages in a case of MREs (Table 25). Twenty-three wish to include Cocoa, Beverage Base, and Coffee, and 11 wish to include Cocoa, Beverage base, Coffee, and Apple Cider (each of the remaining combinations represents ten subjects or less).

Table 25. Combination of beverages included in an ideal case of MREs.

	Cocoa	Beverage Base	Coffee	Apple Cider	Lemon Tea	Tea bag	N
Selected	X	X	X	X	X	X	48
for a Case	X	X	X				23
of MREs	X	X	X	X			11

As seen in Table 26, Beverage base, Cocoa and Coffee were selected by the greatest percentage of respondents (all data). Despite the fact that only two soldiers ever used the Tea bag over the course of the evaluation, forty-four percent chose to include it in their ideal case of MREs. This data is consistent with the acceptability data from the Mealcards.

Table 26. Percent who chose to include a beverage in a case of MREs.

	Percent
Cocoa	90.91
Beverage Base	86.41
Coffee	73.71
Apple Cider	60.48
Lemon Tea	51.22
Tea bag	44.03

When specifically asked **how many beverages** they wish to have in an MRE, 60.3% prefer to have two beverages and 28.4% prefer to have three (one = 7.2%; none = 2.6%). When asked for their opinion of the **variety of beverages** in the current MRE, 50.8% rated variety as “just right,” and 43.7% rated it as “too little.” Only five percent (5.5%) said that the variety of beverages in the MRE is “too much.”

Over half (55.3%) usually have a beverage other than water with their MRE, and 48.4% say that they prepare their beverage in a **canteen cup**. The most frequently given reason for not preparing their beverage in a canteen cup is that the cup gets dirty (16), followed by the time it takes to prepare a beverage (10). Other responses include that it is easier to use one of the MRE pouches (4), and that they would rather just eat the powder (3). Over a third (37.5%) say that they prepare their beverage in a container other than the canteen cup. Of these (n = 45), some use their canteen (15), while others use an MRE pouch (10). A quarter (25.9%) say that they receive beverages from a bulk source.

Three-quarters (74.5%) would prefer to use a **disposable pouch** instead of a canteen cup. Of those who said that they would prefer a disposable pouch ($n = 146$), 25 said that it would be easier to use, 19 said it would be cleaner than their canteen cups, 10 said it would be faster, and 8 liked that it was disposable. Of those who said that they would **not** prefer a disposable pouch ($n = 50$), 9 said that it would be too much trash, 7 prefer the canteen cup, 3 cite the weight, and 2 comment that it would be difficult to heat a pouch.

The next two questions ask the soldiers to rate the **portion size** and **strength** of the current MRE beverages, if they have tried them before, and to mark the “have not tried” column, otherwise. According to this data, most of these soldiers have tried the Beverage base (87.0%) and the Cocoa (82.5%). Nearly two-thirds have tried the Coffee (63.0%), 52.3% have tried the Apple Cider, 48.2% have tried the Lemon Tea, and 32.7% have tried the Tea Bag.

The portion size of the six MRE beverages (Figure 4) was rated as being either “too small,” “just right,” or “too large.” The soldiers were encouraged to comment on what the ideal portion size would be if the current size was not “just right.”

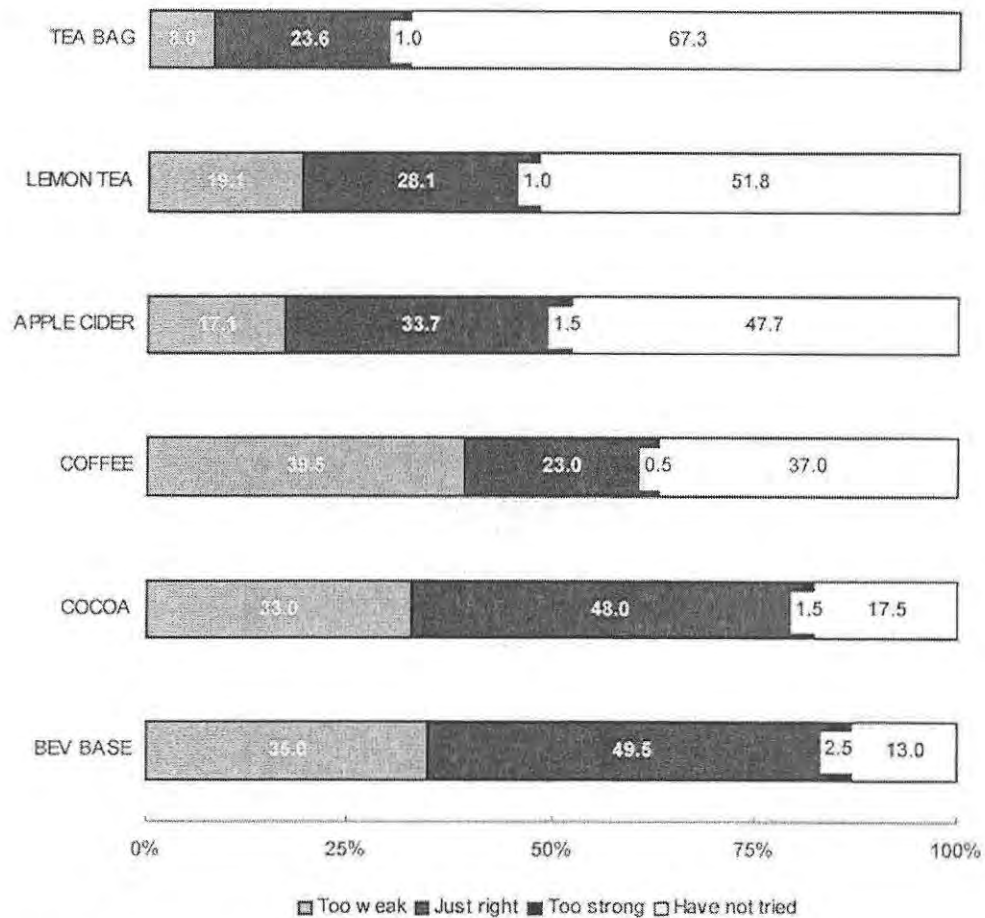


Figure 4. Portion size of MRE beverages.

Nearly half of the ratings for Beverage Base (49.5%) and Cocoa (48.0%) are “just right.” Forty percent (39.5%) of the ratings for Coffee are “too small.” The most frequently given rating for the Apple Cider (33.7%), Lemon Tea (28.1%), and Tea Bag (23.6%) is “just right.”

The **strength** of the six MRE beverages (Figure 5) was rated as being either “too weak,” “just right,” or “too strong.” The soldiers were encouraged to suggest ways to improve the strength of these beverages.

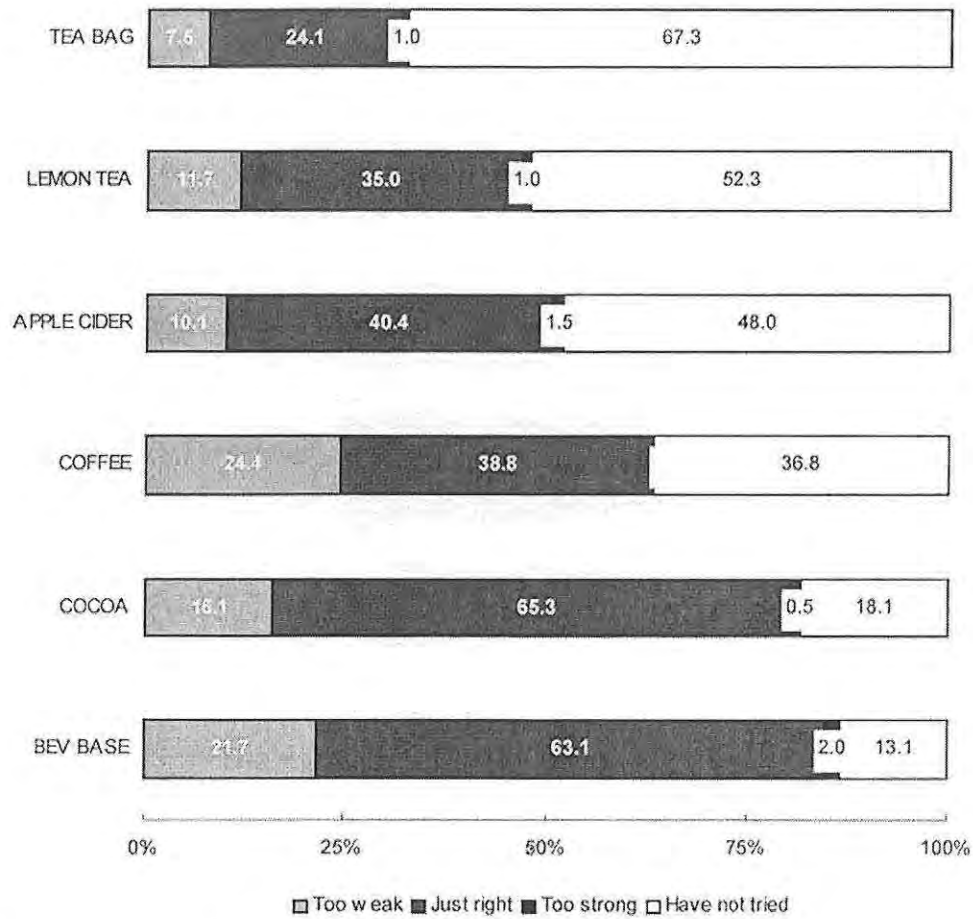


Figure 5. Strength of MRE beverages.

Of those who had tried these beverages, the most frequent rating was that the beverage strength was “just right.” Less than three percent considered each of the beverages to be too strong (no one rated the Coffee as being “too strong”).

Crackers/Snack breads: There were four kinds of Crackers (Plain and Vegetable) and Snack breads (Plain and Wheat) available during this evaluation, although the Plain Snack bread was only available in the Concept MREs. The soldiers were asked to select which of these options they most prefer and least prefer to receive in an MRE.

Each **MRE XX** menu includes either Plain Crackers, Vegetable Crackers, or Wheat Snack bread (Table 27). At the end of the evaluation the Plain Cracker was preferred by the most people, followed by the Wheat Snack bread and the Vegetable Cracker. The “least prefer” and the mealcard acceptability data are consistent with these data. A Oneway ANOVA shows no significant differences between the mean ratings.

Table 27. Which items are most and least preferred: MRE XX.

	% Most	% Least	x Acceptability
Plain Cracker	40.00	18.28	6.80
Wheat Snack bread	33.64	30.11	6.86
Vegetable Cracker	26.36	51.61	6.56

Each **Concept MRE** menu includes either Plain Crackers, Vegetable Crackers, Wheat Snack bread, or Plain Snack bread (Table 28). At the end of the evaluation the Wheat Snack bread was preferred by the most people, followed by the Plain Cracker, the Plain Snack bread, and the Vegetable Cracker. The “least prefer” and the mealcard acceptability data are consistent with these data. A Oneway ANOVA shows significant differences ($p < 0.05$) between the mean ratings. The Wheat Snack bread has a significantly higher mean rating than both the Plain and Vegetable Crackers. The Plain Snack bread has a significantly higher mean rating than the Vegetable Cracker.

Table 28. Which items are most and least preferred: Concept MRE.

	% Most	% Least	x Acceptability
Wheat Snack bread	38.67	10.67	7.65
Plain Cracker	24.00	24.00	6.67
Plain Snack bread	21.33	13.33	6.89
Vegetable Cracker	16.00	52.00	6.06

Condiments: Eighty-five percent (84.7%) would like to have new condiments in the MRE. Condiments were selected by these respondents ($n = 161$) from a list of five, with space provided for suggestions. The condiment most often selected is BBQ sauce (65.8%), followed by ketchup (56.5%), mustard (52.2%), Picante sauce (42.2%), and relish (14.3%). Condiments suggested for the MRE include pepper (14), hot sauce (5), garlic or garlic salt (5), Mrs. Dash (3) and soy sauce (3).

Peanut butter and Jelly: The acceptability of the Peanut butter and Jelly combination falls between “like moderately” and “like very much” on the 9-point scale. Because the Concept MRE group had actually received this combination and the MRE XX group had not, the data were analyzed by MRE group. A t-test shows no significant differences ($p > 0.05$) between the mean ratings for the MRE XX (7.26) and the Concept MRE (7.76) groups.

Vitamin/Mineral Supplement: Slightly more than half (53.0%) of these soldiers do **not** currently use Vitamin/Mineral Supplements in garrison, and 82.7% do **not** currently use them while they are in the field. However, 72.0% say that they would use a supplement if one were included in the MRE.

Health benefits (28) were the primary reason given by those who say that they **would** use it. Other reasons listed include energy (23), because it is there (12), convenience (7) and because they need extra vitamins in the field (6). Of those who said that they **would not** use it (n = 139), some say that they do not use supplements (10), would not trust them (5), or do not like them (3).

Add items to MRE: For the **MRE XX** group, 42.4% would like to see items added to the MRE. Entrees were the most requested items (12), followed by candy (10). Other suggestions include different performing enhancing products (sports bars and powdered Gatorade) (9), spices (7) tobacco products (6), two heaters (6), and more coffee (5). For the **Concept MRE** group, 40.3% would like to see items added to the MRE. The most requested item is tobacco (19). Five recommend including better gum (5) in the MRE.

Remove items from MRE: For the **MRE XX** group, 47.1% requested that items be removed from the MRE. The most frequently requested removal was the Pork Chow Mein (12), followed by the Peanut butter (7) and the Vegetable Crackers (7). For the **Concept MRE** group, 36.4% requested that items be removed from the MRE. The most frequently mentioned item is the Vegetable Cracker (12), followed by entrees (6).

SUMMARY/DISCUSSION

Entrees: Of the ten **Concept** entrees, seven are highly rated. These include two vegetarian entrees (Manicotti and Lasagna), two sandwiches (Pepperoni Pocket and BBQ Pork Rib), and two regular entrees (Pot Roast with Vegetables and Pizza Wrap) and a breakfast entree (Spanish Omelet). Tuna Salad and Dirty Rice with Sausage have mean ratings that fall above the neutral point, but are not as highly rated as most of the Concept entrees. The mean rating for Tuna Salad is significantly lower than Pot Roast with Vegetables and Manicotti, and Dirty Rice with Sausage has a mean rating significantly lower than those for Pot Roast with Vegetables, Manicotti, Lasagna, and Pepperoni Pocket. All of these entrees may be suitable for future MREs. Chicken with Oriental Vegetables, however, has a neutral mean rating and may not be suitable for future MREs.

Of the 24 **MRE XX** entrees, eight are highly rated, and fifteen fall between “like slightly” and “like moderately.” While not all of these have the highest mean ratings, their ratings are still positive, and may continue be included in the future. The Pasta with Vegetables in Alfredo Sauce, however, has a neutral mean rating, and may be replaced in future versions of the MRE.

Soup: There were two soups available, the Minestrone (which was available in both the MRE XX A and in the Concept MRE), and the Hearty Clam Chowder (available in the Concept MRE). The Hearty Clam Chowder is liked “moderately” and has a significantly higher rating than the Minestrone, which is disliked “slightly.” The Hearty Clam Chowder may be recommended for future MREs. Because some Minestrone soup items have been observed to be of a low quality in addition to this low rating, this product will be monitored for further problems. There was no difference in Minestrone soup acceptability when it was provided with a regular entree (Grilled Chicken Breast) and when it was provided with a sandwich (Tuna Salad), but it was reportedly heated more frequently when it was paired with the sandwich.

Sandwich Entrees: When asked how much they expect to like or dislike ready-made sandwiches and sandwich components in their MRE (Background Questionnaire), most expect to like them at least “slightly.” However, many expect to have the time to make a sandwich only half of the time they have an MRE in the field.

Two of the Concept MRE menus included sandwich components most of which, according to the Mealcard data, were assembled into sandwiches. The BBQ Pork sandwich was assembled more often than the Tuna Salad sandwich. The mean rating for the BBQ Pork sandwich is significantly higher than that for the Tuna Salad sandwich (a difference of over a point).

After the evaluation they were asked to rate how much they would like an MRE menu which contained an Entree or a Sandwich, with or without a Soup (Final Questionnaire). The “Entree” and “Sandwich” concepts are the most popular, and the “Sandwich and Soup” and “Entree and Soup” combinations are rated positively. This data shows that Sandwiches would be a good addition to the MRE, although there may be a preference for hot sandwiches, and that the soldiers like the idea of having a Soup in their MREs.

Starch: Of the twelve starch items, nine MRE XX items have positive mean ratings, and these dishes may continue to be part of the MRE. The Crackers and Snack breads are discussed separately below. The mean rating for Buttered Noodles, however, is neutral, and the mean rating for White Rice falls below the neutral point. Either or both of these items may be monitored for use in future MREs.

It is anticipated that one of the Crackers and Snack breads options will be included in every MRE. Therefore, these items were separated out for analysis. Additional questions were included on the Final Questionnaire, when the soldiers were asked to choose which they most and least preferred. Overall, both flavors of MRE Crackers have positive mean ratings, which fall between “like slightly” and “like moderately” on the scale. The Plain Crackers has a slightly (less than half a point) more positive rating than the Vegetable Crackers; this difference approaches significance. The Wheat and the Plain Snack breads both have positive ratings and are suitable for the MRE.

For the MRE XX group there are no significant differences in acceptability ratings for these items. However, on the Final Questionnaire, the MRE XX group shows a preference for the Plain Cracker, followed by the Wheat Snack bread and the Vegetable Cracker.

For the Concept MRE group, the Wheat Snack bread has a higher mean rating than both the Plain and Vegetable Crackers, and the Plain Snack bread has a higher mean rating than the Vegetable Cracker. On the Final Questionnaire, this group shows a preference for the Wheat Snack bread. Nearly half of this group is split between preferring Plain Cracker and Plain Snack bread, and the Vegetable Cracker was preferred by the lowest percentage.

The Vegetable Cracker consistently comes in last for both acceptability (Mealcards; significant for the Concept group, only) and when the soldiers are forced to choose between each of these options (Final Questionnaire). When forced to choose, at least half of the respondents from both the MRE XX and Concept MRE groups least prefer the Vegetable Cracker, but the actual mean rating for this item is positive. Currently the two different Cracker flavors are not assigned to any particular menu, but are available in different menus depending on availability during packaging. Assigning the Vegetable Cracker to certain menus (for example, vegetarian menus, or menus which contain a cheese rather than peanut butter or jelly) may improve this item's standing.

Beverages: The Background and Final Questionnaires show that hot beverages (other than coffee) and hot water are not readily available in the field. Water is usually heated with a stove, or with heat tabs, and is used to prepare MRE beverages and for personal hygiene. Half usually have a beverage (other than water) with their MRE and half say that they prepare their beverage in a canteen cup. Those who do not say that this is because the cup becomes dirty and it takes too long to both prepare a beverage and clean up. When they do not use their canteen cup, they use either their canteen or the MRE pouches to hydrate the beverages, or they eat the beverages without hydrating them first. Asked if they would like to use a disposable pouch instead of a canteen cup, they would prefer to use the pouch because they feel that such a pouch would be easier to use than the canteen cup, and that a disposable pouch would be cleaner. Those who would not like to use a disposable pouch say that it would result in too much trash. From

these data it seems that a disposable rehydration pouch would be well received. It seems, in fact, that some of the soldiers already use the MRE pouches and beverages in a similar fashion.

Acceptability ratings for the beverages were given on the mealcards. There are no Concept items in the beverage category. All of the mean ratings for the MRE beverages fall on the positive side of the scale and may be suitable for future MREs. It should be noted that while the Tea bag does have a high mean rating (8.00), it was rated by only two soldiers during the evaluation.

Cocoa and Beverage bases were selected by the majority of the respondents to be included in a case of MREs; these items were highly rated on the mealcards. Coffee, which has the next highest acceptability mean, was included by many in a case of MREs. Apple cider and Lemon tea were also included by at least half of the respondents, which is also consistent with mealcard acceptability. Less than half included the Tea bag in their ideal case of MREs, but this is actually a high percentage since only two soldiers used and rated the Tea bag over the course of the evaluation. These data indicate that while the Tea Bag is not a necessary item for half of these soldiers, it is desired and enjoyed by a large minority. Continuing to provide the Tea bag in a few MRE menus (as it is now) would be consistent with these data.

Most prefer to have at least 2 beverages in their MRE, including some who would like to have more. The respondents are split between finding the *variety* of the MRE beverages to be “just right” and finding it to be “too little.” Most of the *portion size* ratings for Beverage base, Cocoa, Apple Cider, Lemon tea and Tea bag are “just right.” For Coffee, however, most of the responses are that this beverage is “too small.” Most of the *beverage strength* ratings for all of the beverages, including coffee, are “just right.”

Fruit: All of the five kinds of fruit have mean ratings that are at least “like moderately” which suggests that these items may continue to be a part of the MRE. The Concept item Zapplesauce has the lowest mean rating, one which is significantly lower than the Fruit and the Raspberry Applesauce, but is still positive.

Spices: According to the Background Questionnaires, most of the soldiers use the MRE Hot sauce, and some are familiar with Cayenne pepper and Mrs. Dash. Hot sauce is the most popular of these three spices in terms of projected use, and many indicated that they are willing to have the Cayenne pepper and/or Mrs. Dash in their MREs. The three spices available to the Concept group all received positive mean ratings on the daily Mealcards. At the end of the evaluation, the Concept group was again asked to rate how often they would like to receive the three spices in their MREs. Their responses did not change from the Background questionnaire data. These data suggest that all of these spices would be suitable for future MREs.

Condiments: Most would like to have new condiments in their MRE (Final Questionnaire). At least half of the respondents showed interest in receiving BBQ Sauce, ketchup, and mustard. Picante sauce was also frequently selected. Generally speaking, adding new condiments to future MREs would be well-received.

Spreads: On the Background Questionnaire, the concept of having both peanut butter and jelly in some MREs was well-received. Of the five spreads available during the evaluation, all of the mealcard mean ratings are statistically the same except for MRE Peanut butter and MRE Jelly which have lower mean ratings than the other spreads. However, due to their positive mean ratings, these data indicate that all of these spreads are suitable for future MREs. At the end of the evaluation, the Peanut butter & Jelly concept was rated highly by both groups. From these data it appears that the Peanut butter and Jelly combination could be provided in some MRE menus to replace the MRE Peanut butter or the MRE Jelly.

When it came to describing their ideal case of MREs, the soldiers often included Jalapeno Cheese, Peanut butter & Jelly combination, and Plain Cheese, but the Peanut butter and Jelly, considered separately, were not included very often. If the Peanut butter and Jelly combination is adopted for the MRE, a case of MREs could contain equal proportions of each of the spreads [Jalapeno Cheese (4 menus), Plain Cheese (4 menus), and Peanut butter & Jelly combination (4 menus)]. Another possible arrangement would be to have Cheese in half of the menus (3 menus with Jalapeno and 3 menus with Plain) and Peanut butter & Jelly combination in the other half.

Because of the way the question was asked, it is not obvious what the proportion of Cheese and Peanut butter/Jelly spreads should be in the event that the Peanut butter & Jelly combination is not adopted. The data were looked at in two other ways in order to try to get an answer to this question. When the data are collapsed into "Cheese" and "Peanut butter and/or Jelly" categories, the Cheese spreads are favored. The data were also looked at in terms of how many requests were there for Cheese, and how many requests were there for Peanut butter and/or Jelly. Cheese again comes out on top: ninety percent chose cheese. However, seventy percent chose either Peanut butter and/or Jelly. The implication seems to be that the soldiers would like to see Cheese included in a higher proportion of menus, with Peanut butter or Jelly in the balance of the menus. An example of this would be 4 menus with Jalapeno Cheese, 4 with Plain Cheese, 2 with Peanut butter and 2 with Jelly in a case of 12 MREs.

Dessert and snack items: All of the ratings for the twenty-seven dessert and snack items are positive. Separating out the eight Pound cakes, we find that the Concept Pound cakes (Pumpkin and Almond Poppy) are highly rated. These data suggest that all of the dessert and snack items, current and Concept, may be included in future MREs.

Overall meal: The ratings for overall meal are reminiscent of the ratings for the entrees. Seven of the ten Concept menus are among the highest rated menus. The Concept menus with lower ratings include Dirty Rice with Sausage (positive), Chicken with Oriental Vegetables (neutral), and Tuna Salad (neutral). According to these data, all of the Concept menus except the Chicken with Oriental Vegetables and Tuna Salad may be recommended for the MRE. MRE XX menus with neutral mean ratings include Cheese Tortellini, Bean and Rice Burrito, Beef Steak, Pasta with Vegetables with Alfredo sauce, Pork Chow Mein, and Beef Teriyaki.

Flameless Ration Heater: According to the Background Questionnaire, virtually all of the soldiers currently use the FRH. Unused FRHs are often thrown away, but some unused heaters are saved or traded. During the evaluation, most of the available FRHs were used. Usually they were used to heat the entree alone, but they were also used to heat the side dishes, the spreads,

and the soup, either alone or in different combinations. Soup was included in three menus: the Grilled Chicken Breast (MRE XX), the Pepperoni Pocket (Concept MRE), and the Tuna Salad (Concept MRE). When receiving soup with the Grilled Chicken Breast, seventy-nine percent preferred to heat the entree and six percent preferred to heat the soup. When receiving soup with a prepared sandwich (the Pepperoni Pocket), sixty percent heated their soup and fifteen percent heated their sandwich. When receiving soup with a sandwich which should not be heated (Tuna Salad), seventy percent heated the soup.

Supplements: Data about Performance Enhancing Products and Vitamin and Mineral supplements were collected on the Background and Final Questionnaires. Half report bringing Performance Enhancing Products to the field, but less than twenty percent report bringing Vitamins and Minerals into the field. The write-in responses include Hooah and Power bars, Electrolyte drinks such as Gatorade, and multi-vitamins.

Even though eighty percent report that they do not use Vitamin or Mineral supplements in the field, seventy percent said that they would use a supplement if one was included in the MRE. These soldiers say that they would take an MRE supplement in the field for the perceived health benefits and increased energy. Others state that they would not take an MRE supplement in the field because they do not take them normally. The addition of a Vitamin and/or Mineral supplement to the MRE is, according to these data, worth pursuing.

MRE add/remove: The two groups had different ideas about what items should be added to the MREs. The MRE XX group requested entrees the most often, followed by tobacco. The Concept MRE group requested tobacco the most often, and did not request any entrees at all. When it came to suggesting what items should be removed from the MRE, the two groups were more in agreement. The MRE XX group had 22 suggestions concerning entree removal, and the Concept MRE group had 10 suggestions for entree removal. The top items the MRE XX group wanted removed are Pork Chow Mein, Peanut butter and Vegetable Crackers. The top items the Concept MRE group wanted removed are Vegetable Crackers, Pork Chow Mein and Peanut butter.

CONCLUSIONS

Entrees: According to the acceptability ratings, all of the Concept entrees, with the exception of Chicken with Oriental Vegetables, and all of the MRE XX menus, with the exception of Pasta with Vegetables in Alfredo Sauce, would be suitable for future versions of the MRE.

Soup: These data suggest that the Hearty Claim Chowder would be suitable for future MREs. The acceptability data suggest, however, that there are problems with the Minestrone Soup. More studies concerning the quality of this product should be conducted.

Sandwich Entrees: Sandwiches would be a good addition to the MRE. The acceptability ratings may indicate a preference for hot sandwiches like the BBQ Pork or the Pepperoni Pocket, rather than “cold” sandwiches like the Tuna Salad. Questionnaires on future evaluations may pose this question directly.

Starch: Due to low mean ratings they received on the mealcards, either the Buttered Noodles and/or the White Rice side dishes may be replaced in future MREs. The remaining side dishes are positively rated and are suitable for the MRE.

Both flavors of MRE Crackers have positive mean ratings, which fall between “like slightly” and “like moderately” on the scale, and would be suitable for future versions of the MRE. The Vegetable Cracker, however, has a mean rating which is almost significantly lower than that for the Plain Cracker. In addition, the Vegetable Cracker was often selected as being least preferred to the Plain Cracker and both Snack breads. Currently the two different Cracker types are not assigned to any particular menu, and are available in different menus depending on availability. The Vegetable Cracker is the least preferred of these four items, but its mean ratings are positive. Assigning the Vegetable Cracker to certain menus (for example, vegetarian menus, or menus which contain a cheese spread rather than peanut butter or jelly) may make this item more acceptable as part of the MRE. According to these data, both the Plain Snack bread (Concept) and the Wheat Snack bread (MRE XX) are suitable for the MRE.

Beverages: All of the mean ratings for the MRE beverages fall on the positive side of the scale, which suggests that they are all suitable for future MREs.

This evaluation also shows that the Cocoa, Beverage base and Coffee are popular and should continue to be offered in several MRE menus.

Forty-four percent of the soldiers included the Tea bag when stocking their ideal case of MREs. This item has a high mean rating (8.00), but was rated by only two soldiers during this evaluation. These data indicate that the current practice of including a Tea bag in a few MRE menus appears meets the current need.

Most of these soldiers think that 2 or more beverages per MRE menu are desirable. The respondents are split between finding the *variety* of the MRE beverages to be “just right” and finding it to be “too little.” Increasing beverage variety would be well-received, but is not a priority for these soldiers.

Most of the *portion size* ratings for Beverage base, Cocoa, Apple Cider, Lemon tea and Tea bag are “just right.” For Coffee, however, most of the responses are that this beverage is “too small.” Most of the *beverage strength* ratings for all of the beverages, including coffee, are “just right.” Based on these data, the portion size and strength of the beverages is generally appropriate and does not need to be changed.

According to this evaluation, a disposable pouch for hydrating beverages would be a good addition to the MRE. Indeed, some of the soldiers are already using MRE pouches when they hydrate their beverages. The soldiers expect that a disposable pouch would be clean and convenient.

Fruit: The data collected during this evaluation show positive mean ratings for each of the MRE fruit items. These items are suitable for future MREs.

Spices: All of the spices (Hot sauce, Cayenne, Mrs. Dash) were well-received by those who received them during this evaluation. Generally, even those who did not actually receive these items anticipate that they would like them as part of the MRE. These data indicate that each of these spices would be suitable for future MREs.

Condiments: Adding new condiments to future MREs would be well-received by these soldiers, particularly the BBQ Sauce, ketchup and mustard.

Spreads: Based on acceptability ratings, all of the spreads are suitable for future MREs. However, there is a preference for Cheese spreads (especially Jalapeno) over Peanut butter and Jelly (whether packaged separately or together). They would prefer to receive Peanut butter and Jelly in the same MRE, rather than in different menus.

Assuming that the Peanut butter & Jelly Squeezers are approved for the MRE, one possible distribution of spreads in a case of MREs is 4 menus with Jalapeno Cheese, 4 with Plain Cheese, and 4 with Peanut butter & Jelly Squeezers. Another possible arrangement would be to have Cheese in half of the menus (3 menus with Jalapeno and 3 menus with Plain) and Peanut butter & Jelly in the other half.

In the event that the Peanut butter & Jelly combination is not adopted, these data suggest that Cheese could be included in a higher proportion of menus, and MRE Peanut butter and MRE Jelly could be included in the remaining menus (for example: Jalapeno in 4 menus, Plain Cheese in 4 menus, MRE Peanut butter in 2, and MRE Jelly in 2).

Dessert and snack items: All of the ratings for the twenty-seven dessert and snack items, current and Concept, have positive mean ratings, indicating that they would be suitable for future MREs.

Overall meal: The ratings for overall meal are reminiscent of the ratings for the entrees. Seven of the ten Concept menus are among the highest rated menus. The Concept menus with mean ratings which fall at or below the neutral point, Chicken with Oriental Vegetables (neutral), and Tuna Salad (neutral).

Flameless Ration Heater: The FRH remains a popular item which is often used to heat the entree (its originally intended use), as well as other items.

Supplements: Some of these soldiers report bringing performance enhancing products to the field, typically energy bars and electrolyte beverages.

The addition of a Vitamin and/or Mineral supplement to the MRE is, according to this data, worth pursuing, since a high percentage would consider using one. Those who already use supplements frequently cite using multi-vitamins.

This document reports research undertaken at the U.S. Army Soldier and Biological Chemical Command, Soldier Systems Center, Natick, MA, and has been assigned No. NATICK/TR-02/014 in a series of reports approved for publication.

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Appendix A
MRE XX Menus

MENU 1	MENU 2	MENU 3	MENU 4	MENU 5	MENU 6	MENU 7	MENU 8	MENU 9	MENU10	MENU 11	MENU 12
BEEF STEAK	BONELESS PORK JAMAICAN	BEEF TERIYAKI	COUNTRY CAPTAIN CHICKEN	GRILLED CHICKEN BREAST	CHICKEN WITH NOODLES	CHICKEN WITH SALSA	CHICKEN WITH RICE	BEEF STEW	CHILI WITH MACARONI	PASTA W/VEG TOM SCE (VEG)	BEAN & RICE BURRITO (VEG)
MEXICAN RICE	SPICED APPLES TS	WHITE RICE	BUTTERED NOODLES	MINNESTR-ONE SOUP	RASP-BERRY APPLESCES TS	POTATO STICKS				FRUIT TS	FRUIT TS
	POUND CAKE	CHEESE AND PEANUT BUTTER CRACKERS	MARSH-MALLOW TREATS	POUND CAKE	FIG BAR	SHORT-BREAD COOKIE	FUDGE BROWNIE	DRY ROASTED NUTS	POUND CAKE	GRANOLA BAR	FRUIT FILLED BAR
PEANUT BUTTER	JALAPENO CHEESE SPREAD	JAM	PEANUT BUTTER	JELLY	JALAPENO CHEESE SPREAD	PEANUT BUTTER	PEANUT BUTTER	JALAPENO CHEESE SPREAD	PEANUT BUTTER	PEANUT BUTTER	PEANUT BUTTER
CRACKER	CRACKER		CRACKER	CRACKER	CRACKERS	CRACKER	CRACKER	CRACKER		CRACKER	CRACKER
BEEF JERKY		WHEAT SNACK BREAD		CANDY	CANDY	CANDY		CANDY	WHEAT SNACK BREAD	PEANUT BRITTLE BAR	PEANUT BRITTLE BAR
		CANDY	COCOA	COCOA	COCOA			COCOA	COCOA		
BEV-BASE W/SUGAR	BEV-BASE W/SUGAR	BEV-BASE W/SUGAR					BEV-BASE W/SUGAR				
HOT SCE	HOT SCE	HOT SCE	HOT SCE	HOT SCE	HOT SCE	HOT SCE	HOT SCE	HOT SCE	HOT SCE	HOT SCE	HOT SCE
SPOON	SPOON	SPOON	SPOON	SPOON	SPOON	SPOON	SPOON	SPOON	SPOON	SPOON	SPOON
ACC PKT-B	ACC PKT-A	ACC PKT-A	ACC PKT-A	ACC PKT-D	ACC PKT-A	ACC PKT-C	ACC PKT-A	ACC PKT-C	ACC PKT-E	ACC PKT-C	ACC PKT-D
FRH	FRH	FRH	FRH	FRH	FRH	FRH	FRH	FRH	FRH	FRH	FRH

*CASE A - MENUS 1-12

ACCESSORY PACKET A: COFFEE, CREAM SUB, SUGAR, SALT, GUM, MATCHES, TISSUE, TOWELETTE

ACCESSORY PACKET B: COFFEE, CREAM SUB, SUGAR, SALT, GUM, MATCHES, TISSUE, TOWELETTE, CANDY (VANILLA CARMELS, TOOTSIE ROLL)

ACCESSORY PACKET C: LEMON TEA W/SUGAR, SALT, GUM, MATCHES, TISSUE, TOWELETTE

ACCESSORY PACKET D: LEMON TEA W/SUGAR, APPLE CIDER, SALT, GUM, MATCHES, TISSUE, TOWELETTE

ACCESSORY PACKET E: TEA BAG, CREAM SUB, SUGAR, GUM, MATCHES, TISSUE, TOWELETTE

*JOLLY RANCHER CANDY OR CHARMS, HEAT STABLE M&Ms, PEANUT BRITTLE BAR, FRUIT FLAVORED DISCS

(VEG) - VEGETARIAN MEAL

MENU 13	MENU 14	MENU 15	MENU 16	MENU 17	MENU 18	MENU 19	MENU 20	MENU 21	MENU 22	MENU 23	MENU 24
CHEESE TORTELLINI (VEG)	PASTA W/VEG ALFREDO SAUCE (VEG)	FRANKS, BEEF	CHICKEN W/THAI SAUCE	BEEF RAVIOLI	TURKEY BREAST POT/GRAVY	BEEF WITH MUSHROOM S	SPAGHETTI WITH MEAT SAUCE	TURKEY TETRA-ZINI	PORK CHOW MEIN	CHICKEN W/CAVATELLI	MEATLOAF W/GRAVY
APPLESAUCE TS	FRUIT TS	WESTERN BEANS	WHITE RICE	DRY ROASTED NUTS		YELLOW & WILD RICE PILAF		PRETZELS	CHOW MEIN NOODLES		MEXICAN RICE
GRANOLA BAR	GRANOLA BAR		RAISIN NUT MIX	FUDGE BROWNIE	POUND CAKE	OATMEAL COOKIE	TOASTED PEANUT BUTTER CRACKER	GRAHAM TREAT	CHOC COVERED COOKIE	POUND CAKE	TOASTER PASTRY
PEANUT BUTTER	PEANUT BUTTER	PEANUT BUTTER	JALAPENO CHEESE SPREAD	CHEESE SPREAD	CHEESE SPREAD	JAM	CHEESE SPREAD	PEANUT BUTTER	PEANUT BUTTER	JALAPENO CHEESE SPREAD	JELLY
CRACKER	CRACKER		CRACKER	CRACKER	CRACKER	CRACKER		CRACKER	CRACKER	CRACKER	CRACKER
HARD CANDY	FRUIT FILLED BAR	WHEAT SNACK BREAD			CHOCOLATE SPORTS BAR		WHEAT SNACK BREAD			CANDY	CANDY
						COCOA	COCOA	COCOA			COCOA
		BEV-BASE W/SUGAR	BEV-BASE W/SUGAR		BEV-BASE W/SUGAR		CANDY		BEV-BASE W/SUGAR	BEV-BASE W/SUGAR	
HOT SAUCE	HOT SAUCE	HOT SAUCE	HOT SAUCE	HOT SAUCE	HOT SAUCE	HOT SAUCE	HOT SAUCE	HOT SAUCE	HOT SAUCE	HOT SAUCE	HOT SAUCE
SPOON	SPOON	SPOON	SPOON	SPOON	SPOON	SPOON	SPOON	SPOON	SPOON	SPOON	SPOON
ACC PKT-C	ACC PKT-D	ACC PKT-B	ACC PKT-E	ACC PKT-C	ACC PKT-A	ACC PKT-A	ACC PKT-A	ACC PKT-D	ACC PKT-A	ACC PKT-A	ACC PKT-A
FRH	FRH	FRH	FRH	FRH	FRH	FRH	FRH	FRH	FRH	FRH	FRH

*CASE B - MENUS 13 - 24

ACCESSORY PACKET A: COFFEE, CREAM SUB, SUGAR, SALT, GUM, MATCHES, TISSUE, TOWELETT

ACCESSORY PACKET B: COFFEE, CREAM SUB, SUGAR, SALT, GUM, MATCHES, TISSUE, TOWELETT, CANDY (VANILLA CARAMELS, TOOTSIE ROLL)

ACCESSORY PACKET C: LEMON TEA W/SUGAR, SALT, GUM, MATCHES, TISSUE, TOWELETT

ACCESSORY PACKET D: LEMON TEA W/SUGAR, APPLE CIDER, SALT, GUM, MATCHES, TISSUE, TOWELETT

ACCESSORY PACKET E: TEA BAG, CREAM SUB, SUGAR, GUM, MATCHES, TISSUE, TOWELETT

*JOLLY RANCHER CANDY OR CHARMS, HEAT STABLE M&Ms, PEANUT BRITTLE BAR, FRUIT FLAVORED DISCS

(VEG) - VEGETARIAN MEAL

Appendix B

Background Questionnaire

BACKGROUND QUESTIONNAIRE

Thank you for participating in this evaluation. Please answer the following questions for our records. All of the information you provide will be kept confidential. This information is necessary in order to provide a combat ration that will meet everyone's needs. Please respond to each question by filling in the circle that corresponds with your answer. Thank-you.

1. Rank:

O	(1)	(2)	(3)	(4)	(5)	(6)				
WO	(1)	(2)	(3)	(4)	(5)					
E	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	

2. Age:

—	—	years
(1)	(1)	
(2)	(2)	
(3)	(3)	
(4)	(4)	
(5)	(5)	
(6)	(6)	
(7)	(7)	
(8)	(8)	
(9)	(9)	
(0)	(0)	

3. How many **years** have you been in the Armed Services?

—	—	years	
(1)	(1)		☐ Less than 1 year.
(2)	(2)		
(3)	(3)		
(4)	(4)		
(5)	(5)		
(6)	(6)		
(7)	(7)		
(8)	(8)		
(9)	(9)		
(0)	(0)		

4. MOS: _____

5. What race/ethnic group do you belong to? (Please mark all that apply.)

- ☐ ① American Indian/Alaskan Native
- ☐ ② Asian/Pacific Islander
- ☐ ③ Black
- ☐ ④ Hispanic
- ☐ ⑤ White
- ☐ ⑥ Other (Please specify):

6. In what part of the country did you live in the longest before the age of 16?

- ☐ ① New England (ME, NH, VT, MA, CT, RI)
- ☐ ② Middle Atlantic (NJ, NY, PA, DE, MD)
- ☐ ③ South Atlantic (DC, VA, WV, NC, SC, GA, FL)
- ☐ ④ North Central (OH, IN, IL, MI, WI, MN, IA, MO, ND, SD, NE,
- ☐ ⑤ South Central (KY, TN, AL, MS, AR, LA, OK, TX)
- ☐ ⑥ Mountain (ID, WY, CO, MT, AZ, NM, UT, NV)
- ☐ ⑦ Pacific (WA, OR, CA, AK, HI)
- ☐ ⑧ Other (Please specify): _____

RATION TYPE

7. When in the field, how often each day do you typically receive the following rations?

	NEVER	ONCE PER DAY	TWICE PER DAY	THREE TIMES PER DAY
MREs	☐ 0	☐ 1	☐ 2	☐ 3
HOT RATIONS	☐ 0	☐ 1	☐ 2	☐ 3

8. Which rations do you typically receive for the following meals?

	MRE	Hot rations	Other (Which ones):
BREAKFAST	☐ 1	☐ 2	☐ 0 _____
LUNCH	☐ 1	☐ 2	☐ 0 _____
DINNER	☐ 1	☐ 2	☐ 0 _____

MRE HEATER

9. How often do you use the MRE heater?

- | | | | | | | | |
|-------|-----------------|--------------------------------|--------------------------|--------------------------------|---------------------------|-----------------|------------------------|
| NEVER | ALMOST
NEVER | ONE OUT OF
THREE
ENTREES | EVERY
OTHER
ENTREE | TWO OUT
OF THREE
ENTREES | ALMOST
EVERY
ENTREE | EVERY
ENTREE | OTHER:
(How often?) |
| ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | _____ |

10. When you have an MRE but do not use the heater, what do you usually do with the **unused heater**?

- ① Save
- ② Activate and throw away
- ③ Give or trade away
- ④ Always use the MRE heater
- ⑤ OTHER (please explain) _____

MRE BEVERAGES

11. How often is **hot water for beverages** (coffee, tea, cocoa, etc) available in the field?

- | | | | | |
|-------|--------|------------------|-------|--------|
| NEVER | SELDOM | HALF OF THE TIME | OFTEN | ALWAYS |
| ① | ② | ③ | ④ | ⑤ |

12. How often is **hot coffee** available in the field?

- | | | | | |
|-------|--------|------------------|-------|--------|
| NEVER | SELDOM | HALF OF THE TIME | OFTEN | ALWAYS |
| ① | ② | ③ | ④ | ⑤ |

13. How often do you **heat water for beverages** (coffee, tea, cocoa, etc) in the field?

- | | | | | |
|-------|--------|------------------|-------|--------|
| NEVER | SELDOM | HALF OF THE TIME | OFTEN | ALWAYS |
| ① | ② | ③ | ④ | ⑤ |

14. When you heat water to make MRE beverages in the field, what method do you **usually** use?

- | | |
|------------------|---------------------|
| ① Heat tabs | ④ Do not heat water |
| ② Personal stove | ⑤ Other: _____ |
| ③ MRE heater | |

15. When you heat water in the field for an MRE hot beverage, what do you heat it in?

- ① Do not heat water in the field
- ② Heat water in a canteen cup
- ③ OTHER (please explain): _____

16. When you have hot water in the field, what do you use it for?

	YES	NO		YES	NO
Coffee	Y	N	Ramen Noodles	Y	N
Cocoa	Y	N	Shaving	Y	N
Apple cider	Y	N	Washing	Y	N
Tea bag	Y	N	Other: _____	Y	N
Tea with lemon	Y	N	Other: _____	Y	N

MRE SPICES

17. How often do you use the MRE Tabasco sauce?

NEVER	ALMOST NEVER	ONE OUT OF THREE MREs	EVERY OTHER MRE	TWO OUT OF THREE MREs	ALMOST EVERY MRE	EVERY MRE	OTHER: (How often?)
①	②	③	④	⑤	⑥	⑦	_____

18. In the following table, please mark whether or not you have ever tried the following spices, and how often would you like to receive them in your MRE.

Have you ever tried this spice?

How often would you like to receive this spice?

	YES	NO	NEVER	ALMOST NEVER	ONE OUT OF THREE MREs	EVERY OTHER MRE	TWO OUT OF THREE MREs	ALMOST EVERY MRE	EVERY MRE
Hot sauce	Y	N	①	②	③	④	⑤	⑥	⑦
Cayenne pepper	Y	N	①	②	③	④	⑤	⑥	⑦
Mrs Dash	Y	N	①	②	③	④	⑤	⑥	⑦

MRE SANDWICHES

19. Please rate how much you would like/dislike an MRE which included a ready-made pocket sandwich as the entree.

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

20. Please rate how much you would like/dislike an MRE which included items items (bread, meats, spreads packaged separately in the MRE) which could be made into a sandwich.

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

21. How often would you have enough time to assemble a sandwich in the field?

NEVER	SELDOM	HALF OF THE TIME	OFTEN	ALWAYS
(0)	(1)	(2)	(3)	(4)

MRE SPREADS

22. How much would you like/dislike to have peanut butter and jelly in the same MRE menu?

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

23. How many of the following spreads would you, personally, like to see in a **case of twelve** MREs, if you could only have one spread per meal?

All of the below choices may add up to no more than twelve.

	Per case of twelve MREs												
	0	1	2	3	4	5	6	7	8	9	10	11	12
Cheese (plain)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Jalapeno Cheese	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Peanut butter & Jelly	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Peanut butter	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Jelly/Jam	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

SUPPLEMENTS

24. Do you bring any performance enhancing products with you to the field?

	YES	NO	→If YES, please identify:
Energy bars (Power bar, etc)	☐ Y	☐ N	_____
Electrolyte drinks (Gatorade, etc)	☐ Y	☐ N	_____
Protein drinks	☐ Y	☐ N	_____
Other	☐ Y	☐ N	_____ _____

25. Do you currently bring dietary supplements (vitamins, minerals, etc) with you to the field?

	YES	NO	→If YES, please identify:
Vitamins	☐ Y	☐ N	_____
Minerals	☐ Y	☐ N	_____
Other	☐ Y	☐ N	_____ _____

THANK-YOU.

Appendix C
MRE Mealcards

1. **AMOUNT:** Fill in the bubble which best describes the amount of each item you ate at this meal. If you saved or traded an item, please mark "S" or "T."

2. **RATING:** Please rate how much you liked or disliked the items you ate, according to the following scale:

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
1	2	3	4	5	6	7	8	9

1. AMOUNT EATEN or SAVED/TRADED ITEM

2. RATE LIKE/DISLIKE ITEM

ENTREES

	0	¼	½	¾	1	Other													
Beef Steak	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Boneless Pork Jamaican	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Beef Teriyaki	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Country Captain Chicken	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Grilled Chicken Breast	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Minestrone Soup	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Chicken with Noodles	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Chicken with Salsa	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Chicken with Rice	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Beef Stew	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Chili with Macaroni	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Pasta w/Veg Tomato Sce	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Bean and Rice Burrito	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	

STARCHES:

	0	¼	½	¾	1	Other													
Mexican Rice	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
White Rice	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Buttered Noodles	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Potato Sticks	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Crackers (Plain)	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Crackers (Vegetable)	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Cheese&PB Crackers	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Wheat Snack Bread	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	

FRUIT:

	0	¼	½	¾	1	Other													
Spiced Apples	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Raspberry Applesauce	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Fruit	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	

DESSERTS/SNACKS:

	0	¼	½	¾	1	Other													
Marshmallow Treats	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Fig Bar	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Shortbread Cookie	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Fruit filled bar	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Peanut Brittle Bar	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Granola Bar	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Fudge Brownie	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Pound Cake	☐	☐	☐	☐	☐	☐	___	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	

→ Type of Cake (A) Choc mint chip (B) Vanilla (C) Lemon (D) Pineapple (E) Lemon Poppyseed (F) Orange

DESSERTS/SNACKS:

	0	¼	½	¾	1	Other
Dry Roasted Nuts	☐	☐	☐	☐	☐	☐
Beef Jerky	☐	☐	☐	☐	☐	☐
Candy	☐	☐	☐	☐	☐	☐

(S)	(T)
(S)	(T)
(S)	(T)

RATING

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

SPREADS/MISC:

	0	¼	½	¾	1	Other
Jam/Jelly	☐	☐	☐	☐	☐	☐
Peanut Butter	☐	☐	☐	☐	☐	☐
Cheese	☐	☐	☐	☐	☐	☐
Jalapeno Cheese	☐	☐	☐	☐	☐	☐
Hot Sauce	☐	☐	☐	☐	☐	☐
Sugar	☐	☐	☐	☐	☐	☐
Salt	☐	☐	☐	☐	☐	☐
Gum	☐	☐	☐	☐	☐	☐

(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)

RATING

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

BEVERAGES:

	0	¼	½	¾	1	Other
Cocoa	☐	☐	☐	☐	☐	☐
Beverage Base	☐	☐	☐	☐	☐	☐
Apple Cider	☐	☐	☐	☐	☐	☐
Coffee	☐	☐	☐	☐	☐	☐
Creamer	☐	☐	☐	☐	☐	☐
Lemon Tea	☐	☐	☐	☐	☐	☐
Tea Bag	☐	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐	☐

(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)

RATING

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

3. How much did you like/dislike the overall MRE meal?

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

4. What did you heat with the enclosed MRE heater? (Please mark all that apply.)

(1) Did not use MRE heater (2) Entree (3) Other (Please specify): _____

→ If ENTREE, was it heated all of the way through? (Y) (N)

5. How satisfied/dissatisfied were you with the temperature of the entree (whether heated or not)?

Did not Eat	VERY DISSATISFIED	MODERATELY DISSATISFIED	SLIGHTLY DISSATISFIED	NEITHER SATISFIED NOR DISSATISFIED	SLIGHTLY SATISFIED	MODERATELY SATISFIED	VERY SATISFIED
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)

6. Did you have any pogy bait (non-ration foods) or saved Breakfast/Dinner items over the past 24 hours?

(Y) (N) FOOD AMOUNT FOOD AMOUNT

→ If YES, please list: _____

7. Comments:

THANK - YOU. PLEASE DO NOT WRITE BELOW THIS LINE

CO: (1) (2) (3) ID: (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) DAY: (1) (2) (3) (4) (5) (6) (7) (8) (9)

DC: (1) (2) (3) (4) (5) (6) (7) (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) MENU: (A) (B)

1. **AMOUNT:** Fill in the bubble which best describes the amount of each item you ate at this meal. If you saved or traded an item, please mark "S" or "T."

2. **RATING:** Please rate how much you liked or disliked the items you ate, according to the following scale:

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
1	2	3	4	5	6	7	8	9

1. AMOUNT EATEN or SAVED/TRADED ITEM

2. RATE LIKE/DISLIKE ITEM

ENTREES

	0	¼	½	¾	1	Other														
Cheese Tortellini	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Pasta w/Veg Alfredo Sce	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Beef Franks	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Chicken w/Thai Sce	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Beef Ravioli	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Turkey Breast w/Gravy	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Beef with Mushrooms	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Spaghetti w/meatsauce	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Chicken Tetrazzini	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Pork Chow Mein	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Chicken w/Cavatelli	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Meatloaf w/Gravy	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

STARCHES:

	0	¼	½	¾	1	Other														
Mexican Rice	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
White Rice	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Yellow&Wild Rice Pilaf	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Western Beans	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Chow Mein Noodles	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Pretzels	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crackers (Plain)	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crackers (Vegetable)	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Toasted PB Crackers	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Wheat Snack Bread	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

FRUIT:

	0	¼	½	¾	1	Other														
Applesauce	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Fruit (Other)	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

DESSERTS/SNACKS:

	0	¼	½	¾	1	Other														
Choc Covered Cookie	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Fruit filled bar	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Fudge Brownie	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Granola Bar	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Dry Roasted Nuts	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Raisin Nut Mix	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Pound Cake	☐	☐	☐	☐	☐	☐	___	☐	☐	(S)	(T)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Type of Cake (A) Choc mint chip (B) Vanilla (C) Lemon (D) Pineapple (E) Lemon Poppyseed (F) Orange

DESSERTS/SNACKS:

	0	¼	½	¾	1	Other
Graham Treat	☐	☐	☐	☐	☐	☐
Toaster Pastry	☐	☐	☐	☐	☐	☐
Chocolate Sports Bar	☐	☐	☐	☐	☐	☐
Candy	☐	☐	☐	☐	☐	☐

(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)

RATING

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

SPREADS/MISC:

	0	¼	½	¾	1	Other
Jam/Jelly	☐	☐	☐	☐	☐	☐
Peanut Butter	☐	☐	☐	☐	☐	☐
Cheese	☐	☐	☐	☐	☐	☐
Jalapeno Cheese	☐	☐	☐	☐	☐	☐
Hot Sauce	☐	☐	☐	☐	☐	☐
Sugar	☐	☐	☐	☐	☐	☐
Salt	☐	☐	☐	☐	☐	☐
Gum	☐	☐	☐	☐	☐	☐

(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)

RATING

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

BEVERAGES:

	0	¼	½	¾	1	Other
Cocoa	☐	☐	☐	☐	☐	☐
Beverage Base	☐	☐	☐	☐	☐	☐
Apple Cider	☐	☐	☐	☐	☐	☐
Coffee	☐	☐	☐	☐	☐	☐
Creamer	☐	☐	☐	☐	☐	☐
Lemon Tea	☐	☐	☐	☐	☐	☐
Tea Bag	☐	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐	☐

(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)
(S)	(T)

RATING

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

3. How much did you like/dislike the overall MRE meal?

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

4. What did you heat with the enclosed MRE heater? (Please mark all that apply.)

(1) Did not use MRE heater (2) Entree (3) Other (Please specify): _____

→ If ENTREE, was it heated all of the way through? (Y) (N)

5. How satisfied/dissatisfied were you with the temperature of the entree (whether heated or not)?

Did not Eat	VERY DISSATISFIED	MODERATELY DISSATISFIED	SLIGHTLY DISSATISFIED	NEITHER SATISFIED NOR DISSATISFIED	SLIGHTLY SATISFIED	MODERATELY SATISFIED	VERY SATISFIED
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)

6. Did you have any pogy bait (non-ration foods) or saved Breakfast/Dinner items over the past 24 hours?

(Y) (N)	FOOD	AMOUNT	FOOD	AMOUNT
✓ If YES, please list:	_____	_____	_____	_____

7. Comments: **THANK - YOU. PLEASE DO NOT WRITE BELOW THIS LINE**

CO: (1) (2) (3)	ID: (0) (1) (2) (3) (4) (5) (6) (7) (8) (9)	DAY: (1) (2) (3) (4) (5) (6) (7) (8) (9)
DC: (1) (2) (3) (4) (5) (6) (7)	(0) (1) (2) (3) (4) (5) (6) (7) (8) (9)	MENU: (A) (B)

1. **AMOUNT:** Fill in the bubble which best describes the amount of each item you ate at this meal. If you saved or traded an item, please mark "S" or "T."

2. **RATING:** Please rate how much you liked or disliked the items you ate, according to the following scale:

	DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
	1	2	3	4	5	6	7	8	9
	1. AMOUNT EATEN or SAVED/TRADED ITEM					2. RATE LIKE/DISLIKE ITEM			
	0	1/4	1/2	3/4	1	Other			
Spanish Omelet	☐	☐	☐	☐	☐	☐	☐	☐	☐
Crackers (Plain)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Crackers (Vegetable)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Zapplesauce	☐	☐	☐	☐	☐	☐	☐	☐	☐
Pound Cake, Pumpkin	☐	☐	☐	☐	☐	☐	☐	☐	☐
Jalapeno Cheese	☐	☐	☐	☐	☐	☐	☐	☐	☐
Hot Sauce	☐	☐	☐	☐	☐	☐	☐	☐	☐
Beverage Base	☐	☐	☐	☐	☐	☐	☐	☐	☐
Coffee	☐	☐	☐	☐	☐	☐	☐	☐	☐
Creamer	☐	☐	☐	☐	☐	☐	☐	☐	☐
Salt	☐	☐	☐	☐	☐	☐	☐	☐	☐
Sugar	☐	☐	☐	☐	☐	☐	☐	☐	☐
Gum	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐	☐	☐	☐	☐

3. How much you like/dislike the overall MRE meal?

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

4. What did you heat with the enclosed MRE heater? (Please mark all that apply.)

(1) Did not use MRE heater (2) Entree (3) Other (Please specify): _____

→ If ENTREE, was it heated all of the way through? (Y) (N)

5. How satisfied/dissatisfied were you with the temperature of the entree (whether heated or not)?

Did not Eat	VERY DISSATISFIED	MODERATELY DISSATISFIED	SLIGHTLY DISSATISFIED	NEITHER SATISFIED NOR DISSATISFIED	SLIGHTLY SATISFIED	MODERATELY SATISFIED	VERY SATISFIED
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)

6. Did you have any pogy bait (non-ration foods) or saved Breakfast/Dinner items over the past 24 hours?

(Y) (N) FOOD AMOUNT FOOD AMOUNT

→ If YES, please list: _____

7. Comments:

THANK - YOU. PLEASE DO NOT WRITE BELOW THIS LINE

CO: (1) (2) (3) ID: (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) DAY: (1) (2) (3) (4) (5) (6) (7) (8) (9)

DC: (1) (2) (3) (4) (5) (6) (7) (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) MENU: (1) (2) (3) (4) (5) (6) (7) (8) (9) (0)

1. **AMOUNT:** Fill in the bubble which best describes the amount of each item you ate at this meal. If you saved or traded an item, please mark "S" or "T."

2. **RATING:** Please rate how much you liked or disliked the items you ate, according to the following scale:

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
1	2	3	4	5	6	7	8	9

1. AMOUNT EATEN or SAVED/TRADED ITEM

2. RATE LIKE/DISLIKE ITEM

0 1/4 1/2 3/4 1 Other

BBQ Pork Rib	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Cheese&PB Crackers	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Wheat Snack Bread	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Candy	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Jalapeno Cheese	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Hot Sauce	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Beverage Base	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Coffee	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Creamer	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Salt	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Sugar	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Gum	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Other:	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)

3. How much did you like/dislike the overall MRE meal?

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

4. Did you assemble a sandwich? (Y) (N) → If YES, how much did you like/dislike the sandwich as a whole?

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

5. What did you heat with the enclosed MRE heater? (Please mark all that apply.)

(1) Did not use MRE heater (3) Heated the Soup (4) Other (Please specify): _____

→ If you heated an item, was it heated all of the way through? (Y) (N)

6. How satisfied/dissatisfied are you with the temperature of the Minestrone soup (whether heated or not)?

Did not Eat	VERY DISSATISFIED	MODERATELY DISSATISFIED	SLIGHTLY DISSATISFIED	NEITHER SATISFIED NOR DISSATISFIED	SLIGHTLY SATISFIED	MODERATELY SATISFIED	VERY SATISFIED
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)

7. Did you have any pogy bait (non-ration foods) or saved Breakfast/Dinner items over the past 24 hours?

(Y) (N) FOOD AMOUNT FOOD AMOUNT
→ If YES, please list: _____

8. Comments:

THANK - YOU. PLEASE DO NOT WRITE BELOW THIS LINE

CO: (1) (2) (3) ID: (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) DAY: (1) (2) (3) (4) (5) (6) (7) (8) (9)
DC: (1) (2) (3) (4) (5) (6) (7) (8) (9) (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) MENU: (1) (2) (3) (4) (5) (6) (7) (8) (9) (0)

1. **AMOUNT:** Fill in the bubble which best describes the amount of each item you ate at this meal. If you saved or traded an item, please mark "S" or "T."

2. **RATING:** Please rate how much you liked or disliked the items you ate, according to the following scale:

	DISLIKE EXTREMELY 1	DISLIKE VERY MUCH 2	DISLIKE MODERATELY 3	DISLIKE SLIGHTLY 4	NEITHER LIKE NOR DISLIKE 5	LIKE SLIGHTLY 6	LIKE MODERATELY 7	LIKE VERY MUCH 8	LIKE EXTREMELY 9
	1. AMOUNT EATEN or SAVED/TRADED ITEM						2. RATE LIKE/DISLIKE ITEM		
	0	¼	½	¾	1	Other			
Pot roast w/Veg	☐	☐	☐	☐	☐	☐	☐ S ☐ T	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9	
Buttered Noodles	☐	☐	☐	☐	☐	☐	☐ S ☐ T	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9	
Crackers (Plain)	☐	☐	☐	☐	☐	☐	☐ S ☐ T	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9	
Crackers (Vegetable)	☐	☐	☐	☐	☐	☐	☐ S ☐ T	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9	
Crispy M&Ms	☐	☐	☐	☐	☐	☐	☐ S ☐ T	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9	
Jam/Jelly	☐	☐	☐	☐	☐	☐	☐ S ☐ T	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9	
Peanut Butter	☐	☐	☐	☐	☐	☐	☐ S ☐ T	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9	
Cocoa	☐	☐	☐	☐	☐	☐	☐ S ☐ T	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9	
Mrs Dash	☐	☐	☐	☐	☐	☐	☐ S ☐ T	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9	
Coffee	☐	☐	☐	☐	☐	☐	☐ S ☐ T	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9	
Creamer	☐	☐	☐	☐	☐	☐	☐ S ☐ T	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9	
Salt	☐	☐	☐	☐	☐	☐	☐ S ☐ T	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9	
Sugar	☐	☐	☐	☐	☐	☐	☐ S ☐ T	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9	
Gum	☐	☐	☐	☐	☐	☐	☐ S ☐ T	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9	
Other: _____	☐	☐	☐	☐	☐	☐	☐ S ☐ T	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9	
Other: _____	☐	☐	☐	☐	☐	☐	☐ S ☐ T	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9	

3. How much did you like/dislike the overall MRE meal?

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8	☐ 9

4. What did you heat with the enclosed MRE heater? (Please mark all that apply.)

☐ 1 Did not use MRE heater
 ☐ 2 Entree
 ☐ 3 Other (Please specify): _____

→ If ENTREE, was it heated all of the way through? ☐ Y ☐ N

5. How satisfied/dissatisfied were you with the temperature of the entree (whether heated or not)?

Did not Eat	VERY DISSATISFIED	MODERATELY DISSATISFIED	SLIGHTLY DISSATISFIED	NEITHER SATISFIED NOR DISSATISFIED	SLIGHTLY SATISFIED	MODERATELY SATISFIED	VERY SATISFIED
☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7

6. Did you have any pogeey bait (non-ration foods) or saved Breakfast/Dinner items over the past 24 hours?

☐ Y ☐ N

FOOD	AMOUNT	FOOD	AMOUNT
_____	_____	_____	_____
_____	_____	_____	_____

↳ If YES, please list:

7. Comments:

THANK - YOU. PLEASE DO NOT WRITE BELOW THIS LINE

CO: ☐ 1 ☐ 2 ☐ 3 ID: ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 DAY: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9
 DC: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 MENU: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 0

1. **AMOUNT:** Fill in the bubble which best describes the amount of each item you ate at this meal. If you saved or traded an item, please mark "S" or "T."

2. **RATING:** Please rate how much you liked or disliked the items you ate, according to the following scale:

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
1	2	3	4	5	6	7	8	9

1. AMOUNT EATEN or SAVED/TRADED ITEM

2. RATE LIKE/DISLIKE ITEM

0 1/4 1/2 3/4 1 Other

Pepperoni Pocket	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Hearty Clam Chowder	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Crackers (Plain)	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Crackers (Vegetable)	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Choc Mint Cookie	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Candy	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Cheese	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Cocoa	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Lemon Tea	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Apple Cider	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Salt	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Sugar	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Gum	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Other:	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)

3. How much did you like/dislike the overall MRE meal?

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

4. What did you heat with the enclosed MRE heater? (Please mark all that apply.)

- (1) Did not use MRE heater (2) Heated the Pepperoni Pocket
(3) Heated the Clam Chowder (4) Other (Please specify): _____

→ If you heated the POCKET, was it heated all of the way through? (Y) (N)

5. How satisfied/dissatisfied were you with the temperature of the following items (whether heated or not)?

	Did not Eat	VERY DISSATISFIED	MODERATELY DISSATISFIED	SLIGHTLY DISSATISFIED	NEITHER SATISFIED NOR DISSATISFIED	SLIGHTLY SATISFIED	MODERATELY SATISFIED	VERY SATISFIED
POCKET	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
CHOWDER	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)

6. Did you have any pogeey bait (non-ration foods) or saved Breakfast/Dinner items over the past 24 hours?

(Y) (N) FOOD AMOUNT FOOD AMOUNT
If YES, _____
please list: _____

7. Comments:

THANK - YOU. PLEASE DO NOT WRITE BELOW THIS LINE

CO: (1) (2) (3) ID: (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) DAY: (1) (2) (3) (4) (5) (6) (7) (8) (9)
DC: (1) (2) (3) (4) (5) (6) (7) (8) (9) MENU: (1) (2) (3) (4) (5) (6) (7) (8) (9) (0)

1. **AMOUNT:** Fill in the bubble which best describes the amount of each item you ate at this meal. If you saved or traded an item, please mark "S" or "T."

2. **RATING:** Please rate how much you liked or disliked the items you ate, according to the following scale:

	DISLIKE EXTREMELY 1	DISLIKE VERY MUCH 2	DISLIKE MODERATELY 3	DISLIKE SLIGHTLY 4	NEITHER LIKE NOR DISLIKE 5	LIKE SLIGHTLY 6	LIKE MODERATELY 7	LIKE VERY MUCH 8	LIKE EXTREMELY 9
	1. AMOUNT EATEN or SAVED/TRADED ITEM						2. RATE LIKE/DISLIKE ITEM		
	0	1/4	1/2	3/4	1	Other			
Pizza Wrap	☐	☐	☐	☐	☐	☐	☐	☐	☐
Crackers (Plain)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Crackers (Vegetable)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Raspberry Applesauce	☐	☐	☐	☐	☐	☐	☐	☐	☐
Peanut Butter M&Ms	☐	☐	☐	☐	☐	☐	☐	☐	☐
Jalapeno Cheese	☐	☐	☐	☐	☐	☐	☐	☐	☐
Hot Sauce	☐	☐	☐	☐	☐	☐	☐	☐	☐
Cocoa	☐	☐	☐	☐	☐	☐	☐	☐	☐
Coffee	☐	☐	☐	☐	☐	☐	☐	☐	☐
Creamer	☐	☐	☐	☐	☐	☐	☐	☐	☐
Salt	☐	☐	☐	☐	☐	☐	☐	☐	☐
Sugar	☐	☐	☐	☐	☐	☐	☐	☐	☐
Gum	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐	☐	☐	☐	☐

3. How much did you like/dislike the overall MRE meal?

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

4. What did you heat with the enclosed MRE heater? (Please mark all that apply.)

(1) Did not use MRE heater (2) Entree (3) Other (Please specify): _____

→ If ENTREE, was it heated all of the way through? (Y) (N)

5. How satisfied/dissatisfied were you with the temperature of the entree (whether heated or not)?

Did not Eat	VERY DISSATISFIED	MODERATELY DISSATISFIED	SLIGHTLY DISSATISFIED	NEITHER SATISFIED NOR DISSATISFIED	SLIGHTLY SATISFIED	MODERATELY SATISFIED	VERY SATISFIED
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)

6. Did you have any poge bait (non-ration foods) or saved Breakfast/Dinner items over the past 24 hours?

(Y) (N) FOOD AMOUNT FOOD AMOUNT

→ If YES, please list: _____

7. Comments:

THANK - YOU. PLEASE DO NOT WRITE BELOW THIS LINE

CO: (1) (2) (3) ID: (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) DAY: (1) (2) (3) (4) (5) (6) (7) (8) (9)

DC: (1) (2) (3) (4) (5) (6) (7) (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) MENU: (1) (2) (3) (4) (5) (6) (7) (8) (9) (0)

1. **AMOUNT:** Fill in the bubble which best describes the amount of each item you ate at this meal. If you saved or traded an item, please mark "S" or "T."

2. **RATING:** Please rate how much you liked or disliked the items you ate, according to the following scale:

	DISLIKE EXTREMELY 1	DISLIKE VERY MUCH 2	DISLIKE MODERATELY 3	DISLIKE SLIGHTLY 4	NEITHER LIKE NOR DISLIKE 5	LIKE SLIGHTLY 6	LIKE MODERATELY 7	LIKE VERY MUCH 8	LIKE EXTREMELY 9
	1. AMOUNT EATEN or SAVED/TRADED ITEM						2. RATE LIKE/DISLIKE ITEM		
	0	¼	½	¾	1	Other			
Chicken w/Oriental Veg	☐	☐	☐	☐	☐	☐	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)	
White Rice	☐	☐	☐	☐	☐	☐	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)	
Crackers (Plain)	☐	☐	☐	☐	☐	☐	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)	
Crackers (Vegetable)	☐	☐	☐	☐	☐	☐	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)	
Pnd Cake, Almond Poppy	☐	☐	☐	☐	☐	☐	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)	
Candy	☐	☐	☐	☐	☐	☐	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)	
Jam/Jelly	☐	☐	☐	☐	☐	☐	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)	
Peanut Butter	☐	☐	☐	☐	☐	☐	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)	
Hot Sauce	☐	☐	☐	☐	☐	☐	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)	
Beverage Base	☐	☐	☐	☐	☐	☐	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)	
Coffee	☐	☐	☐	☐	☐	☐	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)	
Creamer	☐	☐	☐	☐	☐	☐	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)	
Salt	☐	☐	☐	☐	☐	☐	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)	
Sugar	☐	☐	☐	☐	☐	☐	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)	
Gum	☐	☐	☐	☐	☐	☐	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)	
Other: _____	☐	☐	☐	☐	☐	☐	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)	

3. How much did you like/dislike the overall MRE meal?

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

4. What did you heat with the enclosed MRE heater? (Please mark all that apply.)

(1) Did not use MRE heater (2) Entree (3) Other (Please specify): _____

→ If ENTREE, was it heated all of the way through? (Y) (N)

5. How satisfied/dissatisfied were you with the temperature of the entree (whether heated or not)?

Did not Eat	VERY DISSATISFIED	MODERATELY DISSATISFIED	SLIGHTLY DISSATISFIED	NEITHER SATISFIED NOR DISSATISFIED	SLIGHTLY SATISFIED	MODERATELY SATISFIED	VERY SATISFIED
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)

6. Did you have any pogeys (non-ration foods) or saved Breakfast/Dinner items over the past 24 hours?

(Y) (N) FOOD AMOUNT FOOD AMOUNT

→ If YES, please list: _____

7. Comments:

THANK - YOU. PLEASE DO NOT WRITE BELOW THIS LINE

CO: (1) (2) (3) ID: (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) DAY: (1) (2) (3) (4) (5) (6) (7) (8) (9)

DC: (1) (2) (3) (4) (5) (6) (7) (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) MENU: (1) (2) (3) (4) (5) (6) (7) (8) (9) (0)

1. **AMOUNT:** Fill in the bubble which best describes the amount of each item you ate at this meal. If you saved or traded an item, please mark "S" or "T."

2. **RATING:** Please rate how much you liked or disliked the items you ate, according to the following scale:

	DISLIKE EXTREMELY 1	DISLIKE VERY MUCH 2	DISLIKE MODERATELY 3	DISLIKE SLIGHTLY 4	NEITHER LIKE NOR DISLIKE 5	LIKE SLIGHTLY 6	LIKE MODERATELY 7	LIKE VERY MUCH 8	LIKE EXTREMELY 9
	1. AMOUNT EATEN or SAVED/TRADED ITEM						2. RATE LIKE/DISLIKE ITEM		
	0	1/4	1/2	3/4	1	Other			
Dirty rice w/sausage	☐	☐	☐	☐	☐	☐	☐	☐	☐
Crackers (Plain)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Crackers (Vegetable)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Fig bar	☐	☐	☐	☐	☐	☐	☐	☐	☐
Dry Roasted Nuts	☐	☐	☐	☐	☐	☐	☐	☐	☐
Candy	☐	☐	☐	☐	☐	☐	☐	☐	☐
Jelly	☐	☐	☐	☐	☐	☐	☐	☐	☐
Cocoa	☐	☐	☐	☐	☐	☐	☐	☐	☐
Hot Sauce	☐	☐	☐	☐	☐	☐	☐	☐	☐
Lemon Tea	☐	☐	☐	☐	☐	☐	☐	☐	☐
Salt	☐	☐	☐	☐	☐	☐	☐	☐	☐
Sugar	☐	☐	☐	☐	☐	☐	☐	☐	☐
Gum	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐	☐	☐	☐	☐

3. How much did you like/dislike the overall MRE meal?

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

4. What did you heat with the enclosed MRE heater? (Please mark all that apply.)

(1) Did not use MRE heater (2) Entree (3) Other (Please specify): _____

→ If ENTREE, was it heated all of the way through? (Y) (N)

5. How satisfied/dissatisfied were you with the temperature of the entree (whether heated or not)?

Did not Eat	VERY DISSATISFIED	MODERATELY DISSATISFIED	SLIGHTLY DISSATISFIED	NEITHER SATISFIED NOR DISSATISFIED	SLIGHTLY SATISFIED	MODERATELY SATISFIED	VERY SATISFIED
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)

6. Did you have any pogy bait (non-ration foods) or saved Breakfast/Dinner items over the past 24 hours?

(Y) (N) FOOD AMOUNT FOOD AMOUNT

→ If YES, please list: _____

7. Comments:

THANK - YOU. PLEASE DO NOT WRITE BELOW THIS LINE

CO: (1) (2) (3) ID: (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) DAY: (1) (2) (3) (4) (5) (6) (7) (8) (9)

DC: (1) (2) (3) (4) (5) (6) (7) (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) MENU: (1) (2) (3) (4) (5) (6) (7) (8) (9) (0)

1. **AMOUNT:** Fill in the bubble which best describes the amount of each item you ate at this meal. If you saved or traded an item, please mark "S" or "T."

2. **RATING:** Please rate how much you liked or disliked the items you ate, according to the following scale:

	DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
	1	2	3	4	5	6	7	8	9
	1. AMOUNT EATEN or SAVED/TRADED ITEM					2. RATE LIKE/DISLIKE ITEM			
	0	¼	½	¾	1	Other			
Manicotti	☐	☐	☐	☐	☐	☐	☐	☐	☐
Wheat Snack Bread	☐	☐	☐	☐	☐	☐	☐	☐	☐
Jam/Jelly	☐	☐	☐	☐	☐	☐	☐	☐	☐
Peanut Butter	☐	☐	☐	☐	☐	☐	☐	☐	☐
Cocoa	☐	☐	☐	☐	☐	☐	☐	☐	☐
Cayenne Pepper	☐	☐	☐	☐	☐	☐	☐	☐	☐
Coffee	☐	☐	☐	☐	☐	☐	☐	☐	☐
Creamer	☐	☐	☐	☐	☐	☐	☐	☐	☐
Salt	☐	☐	☐	☐	☐	☐	☐	☐	☐
Sugar	☐	☐	☐	☐	☐	☐	☐	☐	☐
Gum	☐	☐	☐	☐	☐	☐	☐	☐	☐
Pound Cake	☐	☐	☐	☐	☐	☐	☐	☐	☐
Type of Cake	☐ (A) Choc mint chip ☐ (B) Vanilla ☐ (C) Lemon ☐ (D) Pineapple ☐ (E) Lemon Poppy ☐ (F) Orange								
Other: _____	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐	☐	☐	☐	☐

3. How much did you like/dislike the overall MRE meal?

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

4. What did you heat with the enclosed MRE heater? (Please mark all that apply.)

(1) Did not use MRE heater (2) Entree (3) Other (Please specify): _____

→ If ENTREE, was it heated all of the way through? (Y) (N)

5. How satisfied/dissatisfied were you with the temperature of the entree (whether heated or not)?

Did not Eat	VERY DISSATISFIED	MODERATELY DISSATISFIED	SLIGHTLY DISSATISFIED	NEITHER SATISFIED NOR DISSATISFIED	SLIGHTLY SATISFIED	MODERATELY SATISFIED	VERY SATISFIED
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)

6. Did you have any pogeay bait (non-ration foods) or saved Breakfast/Dinner items over the past 24 hours?

(Y) (N) FOOD AMOUNT FOOD AMOUNT

→ If YES, please list: _____

7. Comments:

THANK - YOU. PLEASE DO NOT WRITE BELOW THIS LINE

CO: (1) (2) (3) ID: (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) DAY: (1) (2) (3) (4) (5) (6) (7) (8) (9)

DC: (1) (2) (3) (4) (5) (6) (7) (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) MENU: (1) (2) (3) (4) (5) (6) (7) (8) (9) (0)

1. **AMOUNT:** Fill in the bubble which best describes the amount of each item you ate at this meal. If you saved or traded an item, please mark "S" or "T."

2. **RATING:** Please rate how much you liked or disliked the items you ate, according to the following scale:

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
1	2	3	4	5	6	7	8	9

1. AMOUNT EATEN or SAVED/TRADED ITEM

2. RATE LIKE/DISLIKE ITEM

0 1/4 1/2 3/4 1 Other

Tuna Salad	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Minestrone Soup	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Plain Snack Bread	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Granola Bar	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Peanut Brittle Bar	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Hot Sauce	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Lemon Tea	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Salt	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Sugar	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Gum	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Other:	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Other:	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Other:	☐	☐	☐	☐	☐	☐	_____	(S) (T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)

3. How much did you like/dislike the overall MRE meal?

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

4. Did you assemble a sandwich? (Y) (N) → If YES, how much did you like/dislike the sandwich as a whole?

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

5. What did you heat with the enclosed MRE heater? (Please mark all that apply.)

(1) Did not use MRE heater (3) Heated the Soup (4) Other (Please specify): _____

→ If you heated an item, was it heated all of the way through? (Y) (N)

6. How satisfied/dissatisfied are you with the temperature of the Minestrone soup (whether heated or not)?

Did not Eat	VERY DISSATISFIED	MODERATELY DISSATISFIED	SLIGHTLY DISSATISFIED	NEITHER SATISFIED NOR DISSATISFIED	SLIGHTLY SATISFIED	MODERATELY SATISFIED	VERY SATISFIED
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)

7. Did you have any pogy bait (non-ration foods) or saved Breakfast/Dinner items over the past 24 hours?

(Y) (N) FOOD AMOUNT FOOD AMOUNT
→ If YES, please list: _____

8. Comments: **THANK - YOU. PLEASE DO NOT WRITE BELOW THIS LINE**

CO: (1) (2) (3) ID: (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) DAY: (1) (2) (3) (4) (5) (6) (7) (8) (9)
DC: (1) (2) (3) (4) (5) (6) (7) (8) (9) MENU: (1) (2) (3) (4) (5) (6) (7) (8) (9) (0)

1. **AMOUNT:** Fill in the bubble which best describes the amount of each item you ate at this meal. If you saved or traded an item, please mark "S" or "T."

2. **RATING:** Please rate how much you liked or disliked the items you ate, according to the following scale:

	DISLIKE EXTREMELY 1	DISLIKE VERY MUCH 2	DISLIKE MODERATELY 3	DISLIKE SLIGHTLY 4	NEITHER LIKE NOR DISLIKE 5	LIKE SLIGHTLY 6	LIKE MODERATELY 7	LIKE VERY MUCH 8	LIKE EXTREMELY 9
	1. AMOUNT EATEN or SAVED/TRADED ITEM					2. RATE LIKE/DISLIKE ITEM			
	0	¼	½	¾	1	Other	(S)	(T)	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Lasagna	☐	☐	☐	☐	☐	☐	☐	☐	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Crackers (Plain)	☐	☐	☐	☐	☐	☐	☐	☐	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Crackers (Vegetable)	☐	☐	☐	☐	☐	☐	☐	☐	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Fruit	☐	☐	☐	☐	☐	☐	☐	☐	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Fruit filled bar	☐	☐	☐	☐	☐	☐	☐	☐	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Peanut Brittle Bar	☐	☐	☐	☐	☐	☐	☐	☐	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Cheese	☐	☐	☐	☐	☐	☐	☐	☐	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Hot Sauce	☐	☐	☐	☐	☐	☐	☐	☐	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Lemon Tea	☐	☐	☐	☐	☐	☐	☐	☐	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Apple Cider	☐	☐	☐	☐	☐	☐	☐	☐	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Salt	☐	☐	☐	☐	☐	☐	☐	☐	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Sugar	☐	☐	☐	☐	☐	☐	☐	☐	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Gum	☐	☐	☐	☐	☐	☐	☐	☐	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Other: _____	☐	☐	☐	☐	☐	☐	☐	☐	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Other: _____	☐	☐	☐	☐	☐	☐	☐	☐	(1) (2) (3) (4) (5) (6) (7) (8) (9)
Other: _____	☐	☐	☐	☐	☐	☐	☐	☐	(1) (2) (3) (4) (5) (6) (7) (8) (9)

3. How much did you like/dislike the overall MRE meal?

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

4. What did you heat with the enclosed MRE heater? (Please mark all that apply.)

(1) Did not use MRE heater (2) Entree (3) Other (Please specify): _____

→ If ENTREE, was it heated all of the way through? (Y) (N)

5. How satisfied/dissatisfied were you with the temperature of the entree (whether heated or not)?

Did not Eat	VERY DISSATISFIED	MODERATELY DISSATISFIED	SLIGHTLY DISSATISFIED	NEITHER SATISFIED NOR DISSATISFIED	SLIGHTLY SATISFIED	MODERATELY SATISFIED	VERY SATISFIED
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)

6. Did you have any pogeiy bait (non-ration foods) or saved Breakfast/Dinner items over the past 24 hours?

(Y) (N) FOOD AMOUNT FOOD AMOUNT

→ If YES, please list: _____

7. Comments:

THANK - YOU. PLEASE DO NOT WRITE BELOW THIS LINE

CO: (1) (2) (3) ID: (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) DAY: (1) (2) (3) (4) (5) (6) (7) (8) (9)

DC: (1) (2) (3) (4) (5) (6) (7) (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) MENU: (1) (2) (3) (4) (5) (6) (7) (8) (9) (0)

Appendix D
Final Questionnaire

Name: _____

FINAL QUESTIONNAIRE

Company: _____

Platoon: _____

Thank you for participating in our evaluation. We would like to have your overall opinion of the rations you ate during this exercise. Your answers will be kept confidential. Please answer honestly and thoughtfully. Your responses will be very important in determining any changes that will be made in the rations.

MRE SOUP/SANDWICHES

1. Using the following scale, please indicate how much would you like/dislike to have an MRE which includes the following items.

	DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
	1	2	3	4	5	6	7	8	9
Entree	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Sandwich	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Soup	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Entree and soup	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Sandwich and soup	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

2. How often would you like to have a sandwich as the MRE entree?

NEVER	ONE OUT OF THREE ENTREES	EVERY OTHER ENTREE	TWO OUT OF THREE ENTREES	EVERY ENTREE	OTHER:
(0)	(1)	(2)	(3)	(4)	(5) _____

3. If your MRE sometimes included individual sandwich items (bread, meats, spreads packaged separately in the MRE), would you make a sandwich?

(Y) (N) → If NO, why not? _____

4. How often do you have enough time to assemble a sandwich in the field?

NEVER	SELDOM	HALF OF THE TIME	OFTEN	ALWAYS
(0)	(1)	(2)	(3)	(4)

PLEASE DO NOT WRITE BELOW THIS LINE

CO: (1) (2) (3)

ID: (0) (1) (2) (3) (4) (5) (6) (7) (8) (9)
(0) (1) (2) (3) (4) (5) (6) (7) (8) (9)

MRE BEVERAGES

5. How many of the following beverages should be included in each **case of twelve** MREs?

	Per case of twelve MREs								OTHER (How many?)
Coffee	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	○ _____
Lemon tea	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	○ _____
Tea bag	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	○ _____
Apple cider	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	○ _____
Beverage base	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	○ _____
Cocoa	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	○ _____

6. How many different beverages would you like to have in each MRE?

NONE	ONE	TWO	THREE	OTHER:
(0)	(1)	(2)	(3)	○ _____

7. Do you usually drink a beverage (other than water) with your MRE in the field? (Y) (N)

↘ If YES, please answer the following:

Do you prepare the beverage in a canteen cup? (Y) (N) If NO, why not? _____

Do you prepare the beverage in another container? (Y) (N) If YES, what kind? _____

Do you receive the beverage from a bulk source? (Y) (N)

Other (Y) (N) Please describe: _____

8. Would you prefer to drink beverages from a disposable pouch instead of a canteen cup?

(Y) (N) ↘ Why or why not? _____

9. Please use the following scale to rate the **portion size** of the MRE beverages. If you have not had a beverage, fill in the 'HAVE NOT TRIED' circle.

	HAVE NOT TRIED	TOO SMALL	JUST RIGHT	TOO LARGE	If not "just right," ideal size would be:
Coffee	(0)	(1)	(2)	(3)	_____
Lemon tea	(0)	(1)	(2)	(3)	_____
Tea bag	(0)	(1)	(2)	(3)	_____
Apple cider	(0)	(1)	(2)	(3)	_____
Beverage base	(0)	(1)	(2)	(3)	_____
Cocoa	(0)	(1)	(2)	(3)	_____

10. Please use the following scale to rate the **portion size** of the MRE beverages. If you have not had a beverage, fill in the 'HAVE NOT TRIED' circle.

	TOO WEAK	JUST RIGHT	TOO STRONG	If not "just right," make suggestions below
Coffee	①	②	③	_____
Lemon tea	①	②	③	_____
Tea bag	①	②	③	_____
Apple cider	①	②	③	_____
Beverage base	①	②	③	_____
Cocoa	①	②	③	_____

11. What is your opinion of the variety of the MRE beverages?

TOO LITTLE	JUST RIGHT	TOO MUCH
①	②	③

✎ If NOT "Just Right," use the space below for suggestions:

MRE CRACKERS/BREAD

12. Which of the following items would you **most like** to receive in your MRE?

Please choose one only:

- ① Plain cracker
- ② Vegetable cracker
- ③ Wheat snack bread
- ④ Plain snack bread

13. Generally speaking, which of these items would you **least like** to receive in your MRE?

Please choose one only:

- ① Plain cracker
- ② Vegetable cracker
- ③ Wheat snack bread
- ④ Plain snack bread

MRE CONDIMENTS

14. Would you like to see new condiments in the MRE? ☐ Y ☐ N

↖ If YES, which condiments would you like to have in your MRE?

- ① BBQ sauce
- ② Picante sauce
- ③ Mustard
- ④ Ketchup
- ⑤ Relish
- ⑥ Other (please list): _____
- ⑦ Other (please list): _____

MRE SPREADS

15. How much would you like/dislike to have peanut butter and jelly in the same MRE menu?

DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

VITAMIN/MINERAL SUPPLEMENTS

16. Do you currently use vitamin/mineral supplements?

In Garrison?	(Y)	(N)
In the Field?	(Y)	(N)

17. If the MRE had a mineral/vitamin supplement would you take it? (Y) (N)

Please explain why or why not: _____

Continue to next page please

GENERAL QUESTIONS

18. Are there any items you would like to see added to the MRE?

☐ Y

☐ N

↘ If YES, please list:

19. Are there any items you would like to see removed from the MRE?

☐ Y

☐ N

↘ If YES, please list:

20. Are there any items you would like to see added to the Hot Meals?

☐ Y

☐ N

↘ If YES, please list:

21. Are there any items you would like to see removed from the Hot Meals?

☐ Y

☐ N

↘ If YES, please list:

THANK-YOU.

Name: _____

FINAL QUESTIONNAIRE

Company: _____

Platoon: _____

Thank you for participating in our evaluation. We would like to have your overall opinion of the rations you ate during this exercise. Your answers will be kept confidential. Please answer honestly and thoughtfully. Your responses will be very important in determining any changes that will be made in the rations.

MRE SOUP/SANDWICHES

1. Using the following scale, please indicate how much you like/dislike to have an MRE which includes the following items.

	DISLIKE EXTREMELY	DISLIKE VERY MUCH	DISLIKE MODERATELY	DISLIKE SLIGHTLY	NEITHER LIKE NOR DISLIKE	LIKE SLIGHTLY	LIKE MODERATELY	LIKE VERY MUCH	LIKE EXTREMELY
	1	2	3	4	5	6	7	8	9
Entree	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Sandwich	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Pocket sandwich	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Soup	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Entree and soup	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Sandwich and soup	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Pocket and soup	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

2. How often would you like to have a sandwich as the MRE entree?

NEVER	ONE OUT OF THREE ENTREES	EVERY OTHER ENTREE	TWO OUT OF THREE ENTREES	EVERY ENTREE	OTHER:
(0)	(1)	(2)	(3)	(4)	(5) _____

3. If your MRE sometimes included individual sandwich items (bread, meats, spreads packaged separately in the MRE), would you make a sandwich?

(Y) (N) → If NO, why not? _____

PLEASE DO NOT WRITE BELOW THIS LINE

CO: (1) (2) (3)

ID: (0) (1) (2) (3) (4) (5) (6) (7) (8) (9)
(0) (1) (2) (3) (4) (5) (6) (7) (8) (9)

4. How often do you have enough time to assemble a sandwich in the field?

NEVER

SELDOM

HALF OF THE TIME

OFTEN

ALWAYS

(0)

(1)

(2)

(3)

(4)

5. If included in your MRE, would you prefer receiving a pocket sandwich (like the Pepperoni Pocket) or items which can be made into a sandwich (like the Tuna Salad)?

☐ Pocket sandwich

☐ Sandwich items

MRE BEVERAGES

6. How many of the following beverages should be included in each **case of twelve** MREs?

	Per case of twelve MREs								OTHER (How many?)
Coffee	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	☐ _____
Lemon tea	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	☐ _____
Tea bag	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	☐ _____
Apple cider	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	☐ _____
Beverage base	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	☐ _____
Cocoa	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	☐ _____

7. How many different beverages would you like to have in each MRE?

NONE

ONE

TWO

THREE

OTHER:

(0)

(1)

(2)

(3)

☐ _____

8. Do you usually drink a beverage (other than water) with your MRE in the field? ☐ (Y) ☐ (N)

↘ If YES, please answer the following:

Do you prepare the beverage in a canteen cup? ☐ (Y) ☐ (N) If NO, why not? _____

Do you prepare the beverage in another container? ☐ (Y) ☐ (N) If YES, what kind? _____

Do you receive the beverage from a bulk source? ☐ (Y) ☐ (N)

Other ☐ (Y) ☐ (N) Please describe: _____

9. Would you prefer to drink beverages from a disposable pouch instead of a canteen cup?

☐ (Y) ☐ (N) ↘ Why or why not? _____

10. Please use the following scale to rate the **portion size** of the MRE beverages. If you have not had a beverage, fill in the 'HAVE NOT TRIED' circle.

	HAVE NOT TRIED	TOO SMALL	JUST RIGHT	TOO LARGE	If not "just right," ideal size would be:
Coffee	①	②	③	④	_____
Lemon tea	①	②	③	④	_____
Tea bag	①	②	③	④	_____
Apple cider	①	②	③	④	_____
Beverage base	①	②	③	④	_____
Cocoa	①	②	③	④	_____

11. Please use the following scale to rate the **portion size** of the MRE beverages. If you have not had a beverage, fill in the 'HAVE NOT TRIED' circle.

	TOO WEAK	JUST RIGHT	TOO STRONG	If not "just right," make suggestions below
Coffee	①	②	③	_____
Lemon tea	①	②	③	_____
Tea bag	①	②	③	_____
Apple cider	①	②	③	_____
Beverage base	①	②	③	_____
Cocoa	①	②	③	_____

12. What is your opinion of the variety of the MRE beverages?

TOO LITTLE	JUST RIGHT	TOO MUCH
①	②	③

✎ If NOT "Just Right," use the space below for suggestions:

MRE SPICES

13. How often would you like to receive the following spices in your MRE.

	NEVER	ONE OUT OF THREE MREs	EVERY OTHER MRE	TWO OUT OF THREE MREs	EVERY MRE	Other (Please specify)
Hot sauce	①	②	③	④	⑤	_____
Cayenne pepper	①	②	③	④	⑤	_____
Mrs Dash	①	②	③	④	⑤	_____

MRE CRACKERS/BREAD

14. Which of the following items would you **most like** to receive in your MRE?

Please choose one only:

- ① Plain cracker
- ② Vegetable cracker
- ③ Wheat snack bread
- ④ Plain snack bread

15. Generally speaking, which of these items would you **least like** to receive in your MRE?

Please choose one only:

- ① Plain cracker
- ② Vegetable cracker
- ③ Wheat snack bread
- ④ Plain snack bread

MRE CONDIMENTS

16. Would you like to see new condiments in the MRE? ☐ Y ☐ N

✎ If YES, which condiments would you like to have in your MRE?

- ☐ 1 BBQ sauce
- ☐ 2 Picante sauce
- ☐ 3 Mustard
- ☐ 4 Ketchup
- ☐ 5 Relish
- ☐ 6 Other (please list): _____
- ☐ 7 Other (please list): _____

MRE SPREADS

17. How much would you like/dislike to have peanut butter and jelly in the same MRE menu?

- | | | | | | | | | |
|-------------------------|-------------------------|-------------------------|-------------------------|-----------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| DISLIKE
EXTREMELY | DISLIKE
VERY
MUCH | DISLIKE
MODERATELY | DISLIKE
SLIGHTLY | NEITHER LIKE
NOR DISLIKE | LIKE
SLIGHTLY | LIKE
MODERATELY | LIKE
VERY
MUCH | LIKE
EXTREMELY |
| ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 | ☐ 6 | ☐ 7 | ☐ 8 | ☐ 9 |

VITAMIN/MINERAL SUPPLEMENTS

18. Do you currently use vitamin/mineral supplements?

In Garrison? ☐ Y ☐ N

In the Field? ☐ Y ☐ N

19. If the MRE had a mineral/vitamin supplement would you take it? ☐ Y ☐ N

Please explain why or why not: _____

GENERAL QUESTIONS

20. Are there any items you would like to see added to the MRE?

☐ Y

☐ N

↘ If YES, please list:

21. Are there any items you would like to see removed from the MRE?

☐ Y

☐ N

↘ If YES, please list:

22. Are there any items you would like to see added to the Hot Meals?

☐ Y

☐ N

↘ If YES, please list:

23. Are there any items you would like to see removed from the Hot Meals?

☐ Y

☐ N

↘ If YES, please list:

THANK-YOU.

Appendix E Supplements

Performance Enhancing Products

Energy Bars (n = 52): Power Bars (22), Hooah Bars (14), Protein (3), Energy/Power Gel (2), Granola Bars (2), Harvest Bars (2), Energy Boost Bar, Goo, Tiger Milk, Promax, Protein Bars, Nutrigrain, Pay Day, Ripped Fuel, WHOC bars.

Electrolyte Drinks (n = 51): Gatorade (36), Powerade (3), Endurox, Tang, Capri Sun, Isostar, Xenodrine.

Protein Drinks (n = 8): Carnation, GNC, Myoplex, Protein shake mix, Ripped Fuel, Waze Whey Protein.

Other products (n = 37): Ripped Fuel (15), Nicotine (5), Coffee (2), Mountain Dew (2), Snickers (2), M&Ms, Candy, Caffeine plus vivarin, energy pills, potassium pills, Power gel, energy bars, Tang, Therma Pro (2), Creatine.

Vitamin/mineral Supplements

Vitamins (n = 30): Vitamin A (2), Vitamin B (2), Vitamin B12 (2), Vitamin C (6), Vitamin E, Bee pollen, Calcium, Multi vitamins (15), Energize classic, muscle enhancer, Ripped Fuel, Theragram, "Vitamins."

Minerals (n = 7): Bee pollen, Multi vitamin, Ginko Bilboa tabs, "Minerals," Potassium pills, zinc.

Other (n = 24): Ripped Fuel (9), Therma Pro (2), Andio 6, Approxin, Tylenol, Motrin, Energy pills, Ephedrine capsules, fat burner, garlic pills, herbs, hydroxy cut thermogenic, nicotine, multi vitamin, pain medicine, raisins for fiber, Xenodrine, "would like to have them in the MRE."