

## CHAPTER 3 RATIONS AND MENUS

### RATIONS

A ration is an amount of food which is nutritionally adequate to subsist one person for one day. The Army has fielded a family of rations, and commanders must choose the appropriate ration mix according to their tactical and logistical situations. The UGR rations, Figure 3-1, and the packaged individual operational rations constitute the primary rations used in the field. The MRE is the primary packaged individual operational ration. When fully fielded, the UGR will replace the modularized B-Rations, T-Rations, and loose A-Ration meals.

#### UNITIZED GROUP RATIONS

- *A-Ration* - refrigeration, food preparation, and cooking.
- *B-Ration* - food preparation and cooking.
- *Heat and Serve (H&S)* - heat or add water and serve.

*Figure 3-1. Types of UGR Rations*

#### UNITIZED GROUP RATION

The UGR is a depot packed, modularized ration that reduces the number of line items handled by Class I activities and significantly reduces the occurrence of not-in-stock status. The only separate line items to be handled are the entree components of the A-Ration meal, authorized enhancements, and supplements. Milk and bread must be issued with all UGRs as they are not in the modules.

The UGR utilizes name-brand items and develops a standard product throughout the battlefield. The use

of off-the-shelf products like instant gravies and sauces permits easier food preparation.

The UGR provides commanders the flexibility to serve either an A-Ration, B-Ration, H&S-Ration, or an MRE, based on the METT-T.

UGRs are palletized by meal, breakfast 1-5, lunch/dinner 1-10, and by ration option A, B, or H&S. Each UGR is then palletized in groups of four 100-man increments for specific meals (A, B, or H&S). For example, a pallet would contain 400 UGR B-Ration dinner meals, menu 1.

#### A-RATIONS

A-Rations include perishable and semiperishable items. Perishable items require refrigeration and increased transportation, fuel, equipment, and water requirements. The work load, liquid and solid waste disposal, and sanitation problems for food service personnel are also increased. Concurrent with the introduction of perishable rations into the TO, refrigerated transportation and storage assets are required from the receiving theater subsistence distribution activity to the using field kitchen. Peacetime requirements for refrigeration continue to be satisfied by civilian direct hire and contractors operating TISAs. Other possible sources of refrigeration include existing TOE assets, ISU 96 refrigerated containers, host-nation support, or local purchase from commercial sources.

#### B-RATIONS

The B-Ration consists of semiperishable items. There are approximately 100 semiperishable foods used in the 10-day menu. The ration provides breakfast,

lunch, and dinner menus. The components are primarily canned and dehydrated foods and are packaged in bulk containers of various sizes and types. Table 4-3, page 4-6, gives weight and planning factors for B-Rations. The shelf life varies depending on the item. The food is susceptible to damage from freezing, heating, insects, rodents, humidity, puncture, and breakage.

### Use

The standard B-Ration is used for feeding in areas where kitchen facilities, without refrigeration, are available. It is also used in situations that do not permit resupply of perishable foods. It is designed to aid substitution of perishable items on a line-item basis. Unitized B-Rations are currently available from the wholesale supply system only when special coordination is made with HQDA DCSLOG or DPSC. Unitized B-Rations are composite stocks palletized in quantities sufficient to feed a group of 100 personnel two breakfast and two lunch/dinner meals. Presently there is a 10-day menu cycle published in SB 10-495. Menus for hospital regular and special diets are contained in SB 10-495-1.

### Preparation Requirements

Cooks must be trained to prepare B-Rations. The B-Ration must be reconstituted according to the procedures printed on or included in each container.

**Water.** To prepare food for 100 persons for one day, you need 64 to 86 (75 average) gallons of water. This includes water for beverages on the menu, but not for refilling canteens or for personal sanitation.

**Time.** Two cooks need approximately two to three hours to prepare a meal for 100 personnel; additional personnel are required for serving and sanitation.

**Special handling.** All dehydrated meat items and certain other food items must be carefully handled during preparation to prevent the product from breaking apart. Fish must be prepared as close as possible

to serving times. It is essential to follow the instructions on the can for dehydrated egg mix to ensure proper product consistency and quality. Cheese, applesauce, and cabbage must be handled carefully also.

### Nutritional Data

The ration provides approximately 4300 kilocalories per day (13 percent protein, 33 percent fat, and 54 percent carbohydrate).

## STANDARD MEDICAL B-RATIONS

The standard medical B-Ration is used to subsist staff and patients in Army medical treatment facilities during organized food service operations when semiperishable rations are required. For planning purposes, it is assumed that 100 percent of the staff and 77 percent of the total patient strength will subsist on the medical B-Ration when semiperishables are required. The remaining 23 percent of hospitalized patient strength will require modified diets of liquid medical B-Rations.

### Medical B-Ration Menus

The standard B-Ration menus, with added food items to satisfy nutritional and dietary requirements, are the basic medical B-Ration menus. Additional medical B-Ration unique items are required for patient feeding. Special subsistence requirements to support the medical B-Ration menus are identified in SB 10-495-1 and are required for medical feeding immediately when hospital units are set up in a TO. Tables in SB 10-495-1 have been written to provide separate requirements for 100 patients or staff rations per day.

### Medical B-Rations

Medical B-Rations must be planned for all patient feeding requirements. They will be supplied in a TO when hospital units are deployed until a medical UGR module is developed and approved for patient feeding.

## DENTAL LIQUID RATION

The dental liquid ration is designed for military personnel who are unable to eat solid foods due to broken jaws or other maxillofacial injuries. The components are easy to prepare and require no refrigeration prior to reconstitution. The consistency of the mixture can be varied by adjusting the amount of water added.

### Characteristics

The components in the five-day cycle menu consist of dehydrated food powders. The products, when reconstituted with water, taste like their solid counterparts, but are in a liquid form. Each one is easily sipped through a straw. Milk shakes have also been developed and are used as between meal nourishments. The products are available in single-serving packages or 10-patient meal modules. The shelf life of each product is a minimum of three years at 80 degrees Fahrenheit.

### Nutritional Data

Each menu, including three milk shake nourishments, provides an average of 3500 kilocalories (15 percent protein, 35 percent fat, and 50 percent carbohydrate). Each milk shake provides approximately 400 kilocalories.

### Preparation Requirements

Products are dehydrated with water and mixed in a blender. They can also be dehydrated by whisking them into solution if a blender is not available.

## T-RATIONS

T-Rations are heat and serve operational rations consisting of semiperishable items. T-Rations are designed to sustain the Army in highly mobile field situations with good quality, nutritionally adequate, heat and serve meals. This ration includes a variety of fully cooked tray pack entrees, vegetables, desserts, and starches. The tray pack, which is the main component of the T-Ration, is packaged in a heat processed, low-profile, rectangular,

half-sized serving line steel pan. This container serves as a package, heating pan, and serving tray.

### Packaging

Unitized T-Rations are palletized according to the menu. A separate T-Ration menu is on each pallet. Pallets consist of 432 T-Ration meals in twenty-four 18-meal modules. The T-Ration is packaged in modules by DLA depots. Table 4-3, page 4-6, gives weight and planning factors for T-Rations. The ration is designed to have a shelf life of 12 months at 100 degrees Fahrenheit and 36 months at 80 degrees Fahrenheit.

### Supplements

Bread and milk must be available with each T-Ration meal. Bread may be canned, pouched, or fresh. Milk may be fresh, powdered whole milk, or WIT. Two half-pint containers of milk are served for breakfast with cereal and one half-pint container is served for lunch and/or dinner.

### Nutritional Data

The breakfast menus, including milk and bread supplements, provide an average of 1400 kilocalories (16 percent protein, 31 percent fat, and 53 percent carbohydrates). The lunch or dinner menus, including bread and milk supplements, provide an average of 1500 kilocalories (17 percent protein, 29 percent fat, and 54 percent carbohydrates). The cold weather supplement provides an additional 1200 kilocalories.

## SPECIAL OPERATIONAL RATIONS

Special operational rations are prepackaged, pre-cooked foods. They are used under special operational conditions when general operational rations cannot be issued.

### General Purpose Food Packet, Survival

This food packet contains four food bars and accessory foods that provide the required calories

and nutrients to feed a soldier for one day. It is designed for use in case of disaster.

### **Meal, Ready-To-Eat**

MREs are packaged meals designed for consumption either as individual units for a meal or in multiples of three as a complete day's ration. This ration is used to sustain individuals during operations that preclude organized food service facilities but where resupply is established or planned.

***NOTE:** On 21 June 95, The Surgeon General released a revised policy on the use of the MRE as the sole source of subsistence. This revised policy allows MREs to be consumed as the sole source of subsistence for up to 21 days. When available, bread, fruit, and milk as enhancements to the MRE are recommended.*

There are currently 12 different menus in each box. The Army plans to increase the total number of menus to 18. The MRE also comes with the FRH included in each pouch. The ration has a shelf-life of three years at 80 degrees Fahrenheit and six months at 100 degrees Fahrenheit.

Each meal provides an average of 1300 kilocalories (15 percent protein, 36 percent fat, and 49 percent carbohydrates). When supplemented with pouch bread, an additional 1200 kilocalories are provided.

Beginning in FY 97, two multifaith/vegetarian meals will be packaged in each box of MREs. In the interim, separate boxes containing 12 meals (6 of each menu) may be ordered.

### **Ration Cold Weather**

The RCW is a lightweight, compact, high caloric, packaged (same as MRE) ration. It is used to sustain individuals during operations occurring under frigid conditions. The components are dehydrated and compressed and contain low-moisture items designed for use in extreme-cold environments. The ration contains approximately 4,500

calories and is designed to feed one person for one day. The ration has a shelf-life of three years at 80 degrees Fahrenheit.

### **Meal Module, Tray Pack, Arctic**

The MTPA is specifically configured for use in extreme cold. It consists of two shipping containers strapped together. One box contains supplemental warming beverages, clam-shell type serving trays, and cups. The second box contains an 18-meal module similar to the standard T-Ration.

### **MENUS**

The field feeding A-Ration menu is now being developed by each installation. A standard Army field menu, employing the UGR concept, is being developed for publication. When this menu is approved and distributed, it will supersede all group field menus, except the medical B-Ration menu.

### **ENHANCEMENTS**

Enhancements are additional item components added to the meal to provide increased soldier acceptability. Enhancements are authorized for MREs when they are the sole daily diet. Enhancements are limited to hot or cold beverages, soups, hardy fruits, vegetables, bread, and UHT milk. The cost for the enhancements is not to exceed eight percent of the cost of one MRE per soldier. Enhancements (Table 3-1, page 3-5) are authorized for optional use with T-Ration and all UGR menus. In addition to individual cereal, fresh fruits and salads, enhancements for T-Rations include bulk condiments for cooks to enhance T-Ration meals and for special preparations such as soups prepared from excess T-Rations. TB MED-53 O requires that individual condiments served in the field be individually packaged. Unopened condiments in acceptable condition (no crushed boxes or cans) will be returned to the supporting Class I activity.

**SUPPLEMENTS**

Supplements are additions to the menu to provide the total nutritional adequacy of the meal. Bread and milk must be available with each T-Ration and UGR meal. Bread may be canned, pouched, or commercially produced. Milk may be fresh, powdered whole milk, or UHT. Two half-pint containers of milk are served for breakfast with cereal, and one half pint container is served for lunch and/or dinner.

**MENU BOARD OPTIONS**

Local menu boards may adjust the issue factors for enhancements and may vary the recipes for green salad. Menu boards are not authorized to

add additional condiments to the authorized list, but they may adjust the unit size for large group feeding.

**ADDITIONAL BEVERAGES**

The installation forecasts cooling and warming beverage requirements as special food allowances through command channels as part of their command operating budget according to AR 30-21. Subsistence items considered warming beverages are coffee, hot tea, hot chocolate, and dehydrated canned soup mix. Cooling beverage is cool water with or without a flavored beverage base.

*Table 3-1. Authorized enhancement items and maximum issue quantities*

| <b>FRUIT</b>  |                     |
|---|---------------------|
| The following fruits and their issue factors are authorized to be issued with the T-Ration meal.  |                     |
| <b>ITEM</b>   | <b>ISSUE FACTOR</b> |
| Apples .....  | 35 lb/100           |
| Oranges .....   | 35 lb/100           |
| Pears .....   | 35 lb/100           |
| Plums .....   | 35 lb/100           |
| Bananas .....   | 35 lb/100           |
| <b>DRY CEREAL</b>   |                     |
| The following dry cereal bowl packs may be used with the T-Ration (an additional 1/2 pint of UHT or pasteurized milk per person is required). |                     |
| <b>ITEM</b>   | <b>NSN</b>          |
| Bran Flakes with raisins .....  | 8920-01-082-2311    |
| Corn, Puffed, sugar coated .....  | 8920-00-924-7627    |
| Corn, Flakes, sugar coated .....  | 8920-00-940-7142    |
| Wheat, Puffed, sugar coated .....   | 8920-00-924-7630    |

Table 3-1. Authorized enhancement items and maximum issue quantities (continued)

| <b>SALADS</b>  |                                     |   |
|--|-------------------------------------|---|
| <p>The following is a suggested list of salad items, recipes, and their issue factors. Some produce vendors may offer packaged salads in 5- and 10-pound bags. Use factor of 10 pounds when using packaged salads.</p> |                                     |   |
| <b>ITEM</b>  | <b>ISSUE FACTOR<br/>(AP WEIGHT)</b> |   |
| <b>Garden Vegetable Salad</b>  |                                     |   |
| Iceberg lettuce .....  | 7 lb/100                            |   |
| Carrots .....  | 2 lb/100                            |   |
| Celery .....   | 3 lb/100                            |   |
| Green pepper .....   | 2 lb/100                            |   |
| <b>Tossed Green Salad</b>  |                                     |   |
| Iceberg lettuce .....  | 6 lb/100                            |   |
| Romaine or spinach lettuce .....   | 3 lb/100                            |   |
| Endive or escarole lettuce .....   | 2 lb/100                            |   |
| <b>CONDIMENTS</b>  |                                     |   |
| <b>ITEM</b>  | <b>SIZE</b>                         | <b>* MAXIMUM QUANTITY<br/>(100 soldiers/7 days)</b> |
| Cheese, grated, Parmesan   | 3-oz can                            | 6   |
| Garlic powder  | 2-oz can                            | 1   |
| Ketchup  | Individual                          | 600   |
| Mustard  | Individual                          | 600   |
| Soy sauce  | 10-oz bottle or                     | 2   |
|  | Individual                          | 600   |
| Worcestershire sauce   | 10-oz bottle or                     | 1   |
|  | Individual                          | 600   |
| Salad dressing   | Assorted, Individual                | 1,200   |
| Onions dry   | Pound                               | 12  |
| Margarine  | No 10 can or                        | 1   |
|  | Individual<br>(Hermetically sealed) | 1,400   |
| Salt   | Individual                          | 500   |
| Pepper   | Individual                          | 1,000   |
| <p>* It is recommended that condiments be issued on a weekly basis.</p>  |                                     |   |



