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FIELD EVALUATION OF AUSTRALIAN RATION PACKS COMBAT RATION (ONE --ETC)
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Department of Defence
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Armed Forces Food Science Establishment
Scottsdale, Tasmania

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Field Evaluation of
Australian Ration Packs
Combat Ration (One Man)
1976/77 (u)

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FIELD EVALUATION OF AUSTRALIAN RATION PACKS
COMBAT RATION (ONE MAN) 1976/77 RATION PACKING PROGRAMME
TRIALLED AT EXERCISE BRAHMAN DRIVE

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D. J. LICHTENSTEIN

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SUMMARY

The five new varieties of the Combat Ration (One Man) 1976/77 Ration Packing Programme were trialled and compared with the 1975/76 Combat Ration (One Man) pack.

The results obtained indicated that the 1976/77 pack, as a whole, was an improvement over the previous pack in terms of consumer acceptability and Service suitability.

These results need to be confirmed at a further field trial. (U)

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CONTENTS

	Page No.
Abstract	
Introduction	1
Trial and Evaluation	1
Results and Discussion	2
Recommendations	3
Acknowledgements	3
Reference	3
Distribution List	

FIELD EVALUATION OF AUSTRALIAN RATION PACKS
COMBAT RATION (ONE MAN) 1976/77 RATION PACKING PROGRAMME
TRIALLED AT EXERCISE BRAHMAN DRIVE

by

D. J. Lichtenstein

INTRODUCTION

A previous report detailed the results of an extensive field survey undertaken to determine the consumer acceptability and service suitability of the Combat Ration (One Man) 1975/76 Ration Packing Programme (Badcock and Lichtenstein, 1978).

Generally it was found that this ration is satisfactory for the task for which it was designed. However, there were a number of components which did not meet a satisfactory standard. Accordingly, a number of recommendations were made in an attempt to rectify these deficiencies, some of which were incorporated during the 1976/77 Ration Packing Programme.

The changes included the deletion of Candy Creamy Fudge in favour of Butterscotch. (This was an interim measure subject to satisfactory field acceptability trials). Varieties of Canned Fruit were reintroduced. One packet of Survival Biscuits was deleted from each ration pack and a tube of Butter Concentrate was a new addition. Potato with Onion Powder was a new addition to menus D and E.

TRIAL AND EVALUATION

The acceptability and Service suitability of individual components was determined as described previously (Badcock and Lichtenstein, 1978). A sample questionnaire is shown at Annex A.

The trial was conducted during the major HQ 1 Div field exercise Brahman Drive. Two evenly matched (understrength) platoons were selected as trial subjects. These were 5 PI, B Coy 6 RAR and 8 PI, C Coy 8/9 RAR respectively which operated separately from each other during the trial period.

The trial was divided into two phases lasting 5 days each during which time the subjects had an opportunity to consume each of the 5 varieties of the 2 different types of ration on trial. During phase 1 5 PI consumed the 75/76 Ration type whereas 8 PI consumed the 76/77 Ration type. During phase 2 the consumption patterns of both platoons were reversed.

Prior to the commencement of phase 1 the subjects were briefed, issued with questionnaires (to be completed following the consumption of the particular item in question), all outside sources of food were removed and an initial ration issue was made. However, the members of each platoon were allowed to interchange the ration pack components if they so desired. During the course of the trial, all unconsumed (unopened) ration pack components were returned, with a final return being made at the end of phase 1 when the subjects were also debriefed, completed questionnaires returned and new questionnaires issued. This procedure was repeated for phase 2.

RESULTS AND DISCUSSION

Analysis of Data

Answers to questions relating to the acceptability, quantity provided and nature of the packaging of each ration component are detailed in Tables 1-4. The results are shown for each of the 2 sets of conditions under investigation: each ration packing phase and each platoon. The popularity ratings of each component, are depicted in descending order of decreasing popularity in Tables 5-8. These Tables also compare the actual discard figures with stated discards determined from answers to questionnaires. Finally, the summary of acceptability, percent dislike, and percent discard data of individual ration components for each of the conditions under investigation, are compared with summary results from previous surveys in Tables 9-11 respectively.

In general the results for the 75/76 ration packing phase confirm the ratings accorded previously (Badcock and Lichtenstein, 1978), suggesting that the sample of soldiers surveyed was typical of those surveyed previously. In addition, it would seem that the changes made in the 76/77 ration packing phase, in response to the previous surveys, have resulted in an increased acceptance of the Combat Ration (One Man). These results are discussed below in greater detail.

Whereas both platoons rated the 76/77 pack at an overall average acceptability factor of 0.9, 5 PI was more critical of the earlier pack compared with 8 PI (0.5 and 0.8 respectively). This may have been an over reaction on the part of 5 PI to consuming the 75/76 pack during phase 2 of the trial following the initial exposure to the more acceptable 76/77 pack. This figure may be compared with the previously determined overall battalion average acceptability factor of 0.7 (range 0.6-0.9) for the 75/76 ration pack (Badcock and Lichtenstein, 1978).

Cereal Block, Survival Biscuits, Candy Creamy Fudge, Orange Beverage Powder, Lemon Beverage Powder, Lime Beverage Powder, Camp Pie, Luncheon Meat and Corned Beef were considered unacceptable (Tables 1-4). Each of these listed items have previously been shown to be unacceptable on a number of occasions. On the other hand none of the new items on trial were deemed to be unacceptable.

The discard figures for each component (Tables 5-8) show a somewhat tenuous inverse relationship between acceptability and the discard rate. However, as shown previously (Badcock and Lichtenstein, 1978) certain items, such as canned meats products, which although are either unacceptable or barely acceptable, are not as readily discarded as more acceptable items. Generally, the actual discard rates for components were higher than what the user believed they were.

Perhaps the surprise was the amount of rice actually discarded by 5 PI (81% in the case of the 75/76 pack and 57% for 76/77 pack). This can be compared with the average discard rate of 5% for Potato with Onion Powder (for both platoons). It must be noted however that rice in the Combat Ration (One Man) is a precooked hot air dried product, requiring at least 10 minutes preparation time.

Despite the user plea for the addition of more adjuncts, the discard figures for the current adjuncts, Salt, Curry Powder, Beef and Chicken Soup Powders are rather high. Also, contrary to popular opinion, the actual discard figures suggest that there is sufficient Tea, Coffee, Sugar and Condensed Milk in the ration pack for soldiers engaged in infantry-like activities.

Of the new items, only Butter Concentrate was discarded in significant quantities (35% and 16% respectively for 5 and 8 PIs). The deletion of one packet of Survival Biscuits resulted only in a marginal reduction in the discard rate, which is still significant.

User Comments

Generally, it was felt that the inclusion of Canned Fruit and Potato with Onion Powder was a step in the right direction in improving pack and that Butterscotch was an improvement over Candy Creamy Fudge. However, the major criticisms expressed previously (Badcock and Lichtenstein, 1978) still remain such as the lack of variety in the menus. Only those comments which have not been reported previously are included in this report.

7% of the users stated that the Canned Fruit containers were too fragile being broken easily under field conditions. 5% stated that the Chocolate Block left a dry taste in the mouth making one feel sick. 2% stated that Butterscotch was far too soft and tasteless. 2% stated that there was too much butter in the packs.

Suggested improvements were along the same lines as those reported previously (Badcock and Lichtenstein, 1978) with the following additional suggestions: include a small refresher towel in each pack (7%); a larger quantity of Potato with Onion Powder should be included (7%); the majority of the packs should have Potato with Onion Powder (5%); the sweets should be replaced by mixed dried fruits (5%); there should be a different variety of sweets in each ration pack (5%); all cans should have flat surfaces (5%); the cans should be constructed out of a lighter material such as aluminium (2%); there should be a different variety of Chewing Gum in each pack (2%); the Survival Biscuits should be replaced by Canned Bread (2%); the Granulated Sugar should be replaced by Sugar Cubes (2%); the current fruit beverage base powders should be replaced by the "White Wings" brand (2%); the immediate pack should be a resealable plastic bag which can be resealed when not in use to maintain the pack items and keep out foreign material (2%).

RECOMMENDATIONS

The previous recommendations (Badcock and Lichtenstein, 1978) which have not yet been implemented are still valid as a result of this trial. It is recommended that a further trial be undertaken using 2 representative platoons from 2 other battalions to substantiate the data on the Combat Ration (One Man) 76/77 Ration Packing Programme. However, there is no need to conduct any further trials on the Combat Ration (One Man) 75/76 Ration Packing Programme, as sufficient data has been generated on this pack.

ACKNOWLEDGEMENTS

My thanks are to HQ 1 Div, HQ 6 TF, 6 RAR and 8/9 RAR for allowing the trial to take place and the excellent organisation which lead to the success of the trial. Special thanks are accorded to the participants in the trial and their commanders who had to forgo, among other things, a fresh meal.

I was ably assisted in the field by Maj A. H. Fairbrother (Det) AFFSE. I acknowledge also the assistance of Messrs. W. Badcock and D. Dunkley in the final analysis of the questionnaires.

REFERENCE

Badcock, W. E. and Lichtenstein, D. J. (1978), AFFSE Report 4/78.

TABLE 1

Exercise: Brahman Drive
Unit: 5 Pl, B Coy, 6 RAR

COMBAT RATION (ONE MAN) QUESTIONNAIRE RESULTS

No. of Subjects = 21

Average Age = 21.1

Av Yrs Service = 3.1

% Married

ITEMS	ACCEPTABILITY				AMOUNT							
	Accept- ability Mean	%Dis- like	%Not tried	%Not replied	% Alright	%Not suff	%Too much	%Dis- card	%Not replied	% Alright	%Too shin	
Cereal Block	-1.10	67	5	0	33	0	10	57	0	81	0	
Survival Biscuits	-0.45	43	5	0	33	5	24	38	0	76	0	
Sweet Biscuits	0.86	19	0	0	71	29	0	0	0	71	0	
Cheese	1.40	10	5	0	38	52	0	10	0	86	10	
Chocolate	0.86	14	0	0	62	33	0	5	0	48	14	
Chewing Gum	0.24	19	0	0	52	24	5	19	0	81	5	
Candy Creamy Fudge	-1.29	71	0	0	33	0	10	57	0	86	0	
Sweetened Condensed Milk	1.43	10	0	0	38	57	5	0	0	95	0	
Sugar	1.38	0	0	0	67	19	14	0	0	57	5	
Tea Bags	1.52	0	0	0	57	38	0	5	0	100	0	
Instant Coffee	1.05	14	0	0	38	57	5	0	0	100	0	
Salt	0.76	5	19	0	81	5	0	10	5	100	0	
Instant Rice	0.27	14	29	0	57	10	5	29	0	95	0	
Curry Powder	0.38	14	38	0	48	10	5	33	5	100	0	
Orange Drink Powder	0.00	33	24	0	38	10	5	48	0	86	0	
Lemon Drink Powder	-0.25	43	24	0	43	5	5	48	0	86	0	
Lime Drink Powder	-0.12	38	19	0	43	10	5	43	0	86	0	
Ham and Eggs	0.65	24	5	0	52	43	0	5	0	67	33	
Plum Jam	1.10	0	5	0	71	19	0	10	0	95	0	
Beef and Vegetables	1.05	10	0	0	67	24	5	0	5	71	29	
Pork and Beans	0.70	19	5	0	57	33	0	10	0	71	29	
Raspberry Jam	0.95	5	5	0	67	24	0	5	5	95	0	
Corned Beef Hash	0.50	24	5	0	67	14	10	5	5	71	29	
Camp Pie	0.41	29	19	0	57	24	0	19	0	71	29	
Apricot Jam	1.00	0	5	0	76	19	0	5	0	95	0	
Beef and Gravy	0.52	29	0	0	71	19	5	5	0	71	29	
Sausages and Vegetables	0.81	24	0	0	48	48	5	0	0	71	29	
Blackberry Jam	1.00	5	5	0	62	29	0	10	0	95	0	
Beef Soup Powder	0.28	19	14	0	76	5	0	19	0	95	0	
Luncheon Meat	-0.60	52	5	0	52	5	19	24	0	71	29	
Beef and Egg	0.70	19	5	0	67	29	5	0	0	71	29	
Peach Jam	1.00	5	5	0	62	29	0	10	0	95	0	
Chicken Soup Powder	0.50	14	14	0	81	5	0	14	0	95	0	
Corned Beef	-0.25	48	5	0	52	14	10	24	0	71	29	

Overall Average = 0.51

75/76 RPP

$$1 = 24$$

PACKAGING				
	%Too crackly	%Too flimsy	%Too bulky	%Not replied
)	10	5	5	0
)	5	14	5	0
)	5	19	5	0
)	0	0	5	0
)	33	5	0	0
)	14	0	0	0
)	5	0	10	0
)	0	5	0	0
)	5	33	0	0
)	0	0	0	0
)	0	0	0	0
)	0	0	0	0
)	0	5	0	0
)	0	0	0	0
)	5	10	0	0
)	5	10	0	0
)	5	10	0	0
)	0	0	0	0
)	0	5	0	0
)	0	0	0	0
)	0	0	0	0
)	0	0	0	0
)	0	5	0	0
)	0	0	0	0
)	0	0	0	0
)	0	0	0	0
)	0	5	0	0
)	0	5	0	0
)	0	0	0	0
)	0	0	0	0
)	0	5	0	0
)	0	5	0	0
)	0	0	0	0
)	0	0	0	0
)	0	5	0	0
)	0	5	0	0
)	0	0	0	0

TABLE 2

Exercise: Brahman Drive

COMBAT RATION (ONE MAN) QUESTIONNAIRE RESULTS

Unit: 8 PI, C Coy, 8/9 RAR

No. of Subjects = 22

Average Age = 22.6

Av Yrs Service = 3.1

% Married = 3

ITEMS	ACCEPTABILITY				AMOUNT						
	Accept-ability Mean	%Dis-like	%Not tried	%Not replied	% Alright	%Not suff	%Too much	%Dis-card	%Not replied	% Alright	%Too shiny
Cereal Block	-0.52	50	5	0	45	0	18	36	0	100	0
Survival Biscuits	0.19	14	5	0	64	0	32	5	0	95	0
Sweet Biscuits	0.73	5	0	0	64	14	18	5	0	82	0
Cheese	1.27	9	0	0	59	32	9	0	0	86	14
Chocolate	0.77	14	0	0	77	9	5	9	0	64	14
Chewing Gum	0.18	14	0	0	68	5	9	18	0	55	27
Candy Creamy Fudge	-0.14	41	0	0	36	14	14	36	0	100	0
Sweetened Condensed Milk	1.50	0	0	0	59	27	14	0	0	64	0
Sugar	1.27	0	0	0	64	9	27	0	0	64	0
Tea Bags	0.91	9	0	0	64	18	9	9	0	91	0
Instant Coffee	1.57	0	5	0	55	32	9	5	0	100	0
Salt	0.95	0	0	0	91	5	5	0	0	91	0
Instant Rice	1.55	0	0	0	64	32	5	0	0	100	0
Curry Powder	0.68	18	0	0	73	5	14	9	0	100	0
Orange Drink Powder	0.33	27	5	0	64	14	5	18	0	100	0
Lemon Drink Powder	0.29	27	5	0	68	9	5	18	0	100	0
Lime Drink Powder	0.24	32	5	0	59	14	5	23	0	100	0
Ham and Eggs	0.09	41	0	0	41	27	18	14	0	64	36
Plum Jam	1.36	0	0	0	77	14	9	0	0	86	0
Beef and Vegetables	1.59	0	0	0	55	36	9	0	0	64	36
Pork and Beans	1.18	14	0	0	41	50	9	0	0	64	36
Raspberry Jam	1.41	0	0	0	77	14	9	0	0	86	0
Corned Beef Hash	0.32	32	0	0	77	9	14	0	0	64	36
Camp Pie	0.05	41	0	0	45	23	18	14	0	64	36
Apricot Jam	1.27	5	0	0	73	18	9	0	0	86	0
Beef and Gravy	1.41	5	0	0	59	27	9	5	0	64	36
Sausages and Vegetables	1.68	0	0	0	32	64	5	0	0	68	32
Blackberry Jam	1.36	0	0	0	73	18	9	0	0	82	5
Beef Soup Powder	1.09	5	0	0	73	23	5	0	0	91	5
Luncheon Meat	-0.36	50	0	0	50	9	23	18	0	64	32
Beef and Egg	0.00	41	0	0	41	23	23	14	0	68	32
Peach Jam	1.27	5	0	0	77	14	9	0	0	82	5
Chicken Soup Powder	1.18	9	0	0	73	23	5	0	0	95	5
Corned Beef	-0.18	41	0	0	68	0	18	14	0	64	32

Overall Average = 0.78

75/76 RPP

d = 36

PACKAGING				
Too shiny	%Too crackly	%Too flimsy	%Too bulky	%Not replied
0	0	0	0	0
0	0	5	0	0
0	0	9	5	5
14	0	0	0	0
14	23	0	0	0
27	5	14	0	0
0	0	0	0	0
0	0	36	0	0
0	9	23	5	0
0	5	5	0	0
0	0	0	0	0
0	9	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
36	0	0	0	0
0	0	14	0	0
36	0	0	0	0
36	0	0	0	0
0	0	14	0	0
36	0	0	0	0
36	0	0	0	0
0	0	14	0	0
36	0	0	0	0
32	0	0	0	0
5	0	14	0	0
5	0	5	0	0
32	0	0	5	0
32	0	0	0	0
5	0	14	0	0
5	0	0	0	0
32	0	0	5	0

TABLE 3

Exercise: Brahman Drive

COMBAT RATION (ONE MAN) QUESTIONNAIRE RESULTS

Unit: 5 Pl, B Coy, 6 RAR

No. of Subjects = 20

Average Age = 20.8

Av Yrs Service = 2.9

% Married =

ITEMS	ACCEPTABILITY				AMOUNT							
	Accept-ability Mean	%Dis-like	%Not tried	%Not replied	% Alright	%Not suff	%Too much	%Dis-card	%Not replied	% Alright	%Too shiny	
Cereal Block	-0.89	60	10	0	45	0	15	40	0	90	0	
Survival Biscuits	-0.61	50	10	0	40	5	15	40	0	85	0	
Sweet Biscuits	0.75	15	0	0	85	10	0	0	5	85	0	
Butter Concentrate	0.82	10	10	5	70	0	10	10	10	95	0	
Cheese	1.21	10	5	0	50	40	0	5	5	100	0	
Chocolate	0.95	10	5	0	60	15	5	10	10	70	10	
Chewing Gum	0.30	20	0	0	55	20	10	10	5	85	5	
Butterscotch	1.20	0	0	0	65	25	5	0	5	50	0	
Sweetened Condensed Milk	1.15	5	0	0	55	35	5	0	5	90	0	
Sugar	1.20	0	0	0	75	10	10	0	5	55	5	
Tea Bags	1.45	0	0	0	55	40	0	0	5	100	0	
Instant Coffee	1.35	5	0	0	55	35	5	0	5	100	0	
Salt	0.74	5	5	0	85	0	5	5	5	90	0	
Instant Rice	0.28	20	10	0	65	5	5	20	5	90	0	
Potato with Onion Powder	1.35	5	5	10	65	20	0	5	10	85	0	
Curry Powder	0.47	15	15	0	65	5	0	25	5	95	0	
Orange Drink Powder	1.00	5	5	0	75	10	0	10	5	100	0	
Lemon Drink Powder	0.74	15	5	0	75	10	0	10	5	100	0	
Lime Drink Powder	1.00	5	5	0	80	10	0	5	5	100	0	
Peaches	2.00	0	0	0	35	60	0	0	5	75	0	
Pears	2.00	0	0	0	35	60	0	0	5	75	0	
Two Fruits	2.00	0	0	0	35	60	0	0	5	75	0	
Ham and Eggs	0.58	30	5	0	45	30	10	15	0	65	35	
Plum Jam	1.25	0	0	0	90	10	0	0	0	90	0	
Beef and Vegetables	0.90	20	0	0	85	10	0	5	0	60	35	
Pork and Beans	0.65	25	0	0	65	30	5	0	0	60	35	
Raspberry Jam	1.30	0	0	0	90	10	0	0	0	90	0	
Corned Beef Hash	0.75	20	0	0	75	15	5	5	0	60	35	
Camp Pie	0.40	30	0	0	55	20	10	15	0	70	30	
Apricot Jam	1.30	0	0	0	85	15	0	0	0	90	0	
Beef with Gravy	0.65	20	0	0	70	15	5	10	0	65	30	
Sausages and Vegetables	0.75	25	0	0	50	35	15	0	0	65	35	
Blackberry Jam	1.25	0	0	0	90	10	0	0	0	90	0	
Beef Soup Powder	0.78	10	10	0	90	0	5	5	0	100	0	
Luncheon Meat	-0.63	55	5	0	60	5	10	25	0	60	35	
Beef and Eggs	0.53	30	5	0	45	35	15	5	0	70	30	
Peach Jam	1.20	0	0	0	90	10	0	0	0	90	0	
Chicken Soup Powder	1.00	5	10	0	90	0	0	10	0	95	5	
Corned Beef	0.00	40	0	5	70	5	10	15	0	60	35	

Overall Average = 0.85

76/77 RPP

ried = 25

PACKAGING				
%Too shiny	%Too crackly	%Too flimsy	%Too bulky	%Not replied
0	5	0	5	0
0	5	5	0	5
0	5	10	0	0
0	0	5	0	0
0	0	0	0	0
10	15	0	0	5
5	5	0	0	5
0	40	10	0	0
0	0	10	0	0
5	0	40	0	0
0	0	0	0	0
0	0	0	0	0
0	0	10	0	0
0	0	10	0	0
0	0	5	0	10
0	0	5	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	25	0	0
0	0	25	0	0
0	0	25	0	0
35	0	0	0	0
0	0	10	0	0
35	0	0	5	0
35	5	0	0	0
0	0	10	0	0
35	5	0	0	0
30	0	0	0	0
0	0	10	0	0
30	0	0	5	0
35	0	0	0	0
0	0	10	0	0
0	0	0	0	0
35	0	0	5	0
30	0	0	0	0
0	0	10	0	0
5	0	0	0	0
35	0	0	5	0

TABLE 4

Exercise: Brahman Drive

COMBAT RATION (ONE MAN) QUESTIONNAIRE RESULTS 76

Unit: 8 Pl, C Coy, 8/9 RAR

No. of Subjects = 22

Average Age = 22.3

Av Yrs Service = 3.1

% Married = 3

ITEMS	ACCEPTABILITY				AMOUNT						
	Accept-ability Mean	%Dis-like	%Not tried	%Not replied	% Alright	%Not suff	%Too much	%Dis-card	%Not replied	% Alright	%Too shiny
Cereal Block	-0.68	55	0	0	41	0	5	50	5	91	0
Survival Biscuits	0.32	18	0	0	59	18	9	9	5	91	0
Sweet Biscuits	0.95	14	0	0	82	5	14	0	0	73	0
Butter Concentrate	0.82	9	0	0	73	0	14	14	0	86	0
Cheese	1.55	0	0	0	55	45	0	0	0	86	14
Chocolate	0.91	14	0	0	77	9	0	14	0	59	14
Chewing Gum	0.59	14	0	0	68	14	0	18	0	68	18
Butterscotch	1.00	14	0	0	73	14	0	14	0	50	5
Sweetened Condensed Milk	1.45	0	0	0	68	23	9	0	0	82	0
Sugar	1.27	0	0	0	86	0	14	0	0	68	9
Tea Bags	1.10	5	5	0	68	23	0	9	0	86	9
Instant Coffee	1.33	0	5	0	68	23	5	5	0	91	5
Salt	0.64	5	0	0	95	0	5	0	0	86	9
Instant Rice	1.41	5	0	0	64	32	0	5	0	95	0
Potato with Onion Powder	1.67	0	0	5	73	23	0	0	5	95	0
Curry Powder	0.64	18	0	0	77	9	5	9	0	100	0
Orange Drink Powder	-0.15	36	9	0	59	9	0	32	0	100	0
Lemon Drink Powder	-0.10	36	9	0	64	5	0	32	0	100	0
Lime Drink Powder	-0.10	36	9	0	59	9	0	32	0	100	0
Peaches	2.00	0	0	0	36	59	0	0	5	86	9
Pears	2.00	0	0	0	36	59	0	0	5	86	9
Two Fruits	2.00	0	0	0	36	59	0	0	5	82	9
Ham and Eggs	0.09	32	0	0	41	32	5	23	0	55	45
Plum Jam	1.18	5	0	0	77	14	5	5	0	91	0
Beef and Vegetables	1.52	0	0	0	77	18	0	0	5	50	45
Pork and Beans	0.64	23	0	0	32	55	5	9	0	55	45
Raspberry Jam	1.36	5	0	0	82	14	5	0	0	91	0
Corned Beef Hash	0.36	32	0	0	77	14	5	5	0	50	45
Camp Pie	-0.05	41	0	0	41	23	18	18	0	55	45
Apricot Jam	1.05	9	0	0	77	14	9	0	0	91	0
Beef with Gravy	1.36	5	0	0	77	23	0	0	0	55	45
Sausages and Vegetables	1.50	0	0	0	50	50	0	0	0	55	45
Blackberry Jam	1.09	5	0	0	82	14	5	0	0	95	0
Beef Soup Powder	0.91	14	0	0	73	18	0	9	0	95	0
Luncheon Meat	0.00	36	0	0	64	0	18	18	0	45	50
Beef and Eggs	0.23	36	0	0	41	27	9	23	0	55	45
Peach Jam	1.09	5	0	0	82	14	5	0	0	91	0
Chicken Soup Powder	1.18	9	0	0	82	9	0	9	0	100	0
Corned Beef	-0.05	41	0	0	68	0	14	18	0	50	45

Overall Average = 0.87

PACKAGING			
%Too crackly	%Too flimsy	%Too bulky	%Not replied
5	0	0	5
5	5	0	0
5	18	5	0
0	14	0	0
0	0	0	0
23	0	5	0
0	9	0	5
41	0	0	5
5	14	0	0
9	14	0	0
5	0	0	0
0	5	0	0
0	5	0	0
0	5	0	0
5	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	5
0	0	0	5
0	0	0	9
0	0	0	0
0	9	0	0
0	0	0	5
0	0	0	0
0	9	0	0
0	0	5	0
0	0	0	0
0	9	0	0
0	0	0	0
0	0	0	0
0	5	0	0
0	5	0	0
0	0	5	0
0	0	0	0
0	0	0	0
0	9	0	0
0	0	0	0
0	0	5	0

TABLE 5

COMBAT RATION (ONE MAN)

75/76 RPP

Exercise: Brahman Drive
Unit: 5 Pl, B Coy, 6 RAR

POPULARITY RATINGS AND OBJECTIVE DISCARDS

ACCEPTABILITIES (Mean Score)	DISLIKES (% Users)	DISCARDS (% Users)	DISCARDS (% Components)
Tea Bags	0	Sugar	Beef and Vegetables
Sugar	0	Sweetened Condensed Milk	Corned Beef
Sweetened Condensed Milk	0	Beef and Vegetables	Apricot Jam
Cheese	0	Instant Coffee	Sausages and Vegetables
Plum Jam	5	Sweet Biscuits	Beef and Egg
Apricot Jam	5	Sausages and Vegetables	Pork and Beans
Peach Jam	5	Beef and Egg	Corned Beef Hash
Blackberry Jam	6	Tea Bags	Beef and Gravy
Rasperry Jam	10	Apricot Jam	Camp Pie
Beef and Vegetables	10	Rasperry Jam	Sweetened Condensed Milk
Instant Coffee	10	Chocolate	Instant Coffee
Rasperry Jam	14	Ham and Eggs	Tea Bags
Chocolate	14	Corned Beef Hash	Cheese
Sweet Biscuits	17	Beef and Gravy	Peach Jam
Salt	19	Cheese	Chocolate
Sausages and Vegetables	19	Plum Jam	Rasperry Jam
Beef and Egg	19	Peach Jam	Sugar
Pork and Beans	20	Blackberry Jam	Plum Jam
Ham and Eggs	20	Salt	Blackberry Jam
Chicken Soup Powder	20	Pork and Beans	Sweet Biscuits
Corned Beef Hash	22	Curry Powder	Ham and Eggs
Beef and Gravy	23	Sausages and Vegetables	Lime Drink Powder
Curry Powder	24	Ham and Eggs	Luncheon Meat
Camp Pie	25	Corned Beef Hash	Orange Drink Powder
Instant Rice	25	Beef and Gravy	Lemon Drink Powder
Beef Soup Powder	29	Camp Pie	Chewing Gum
Chewing Gum	35	Orange Drink Powder	Chicken Soup Powder
Orange Drink Powder	44	Survival Biscuits	Beef Soup Powder
Lime Drink Powder	45	Lime Drink Powder	Candy Creamy Fudge
Corned Beef	47	Corned Beef	Salt
Lemon Drink Powder	50	Luncheon Meat	Curry Powder
Survival Biscuits	55	Lemon Drink Powder	Survival Biscuits
Luncheon Meat	56	Cereal Block	Cereal Block
Cereal Block	70	Candy Creamy Fudge	Instant Rice
Candy Creamy Fudge	71		

TABLE 6

COMBAT RATION (ONE MAN)
POPULARITY RATINGS AND OBJECTIVE DISCARDS

Exercise: Brahman Drive
Unit: 8 Pl, C Coy, 8/9RAR

75/76 RPP

ACCEPTABILITIES (Mean Score)	DISLIKES (% Users)	DISCARDS (% Users)	DISCARDS (% Components)
Sausages and Vegetables	Sausages and Vegetables	Sausages and Vegetables	Sausages and Vegetables
Beef and Vegetables	Beef and Vegetables	Beef and Vegetables	Beef and Vegetables
Instant Coffee	Instant Coffee	Instant Rice	Beef and Gravy
Instant Rice	Instant Rice	Sweetened Condensed Milk	Pork and Beans
Sweetened Condensed Milk	Sweetened Condensed Milk	Raspberry Jam	Ham and Eggs
Plum Jam	Plum Jam	Blackberry Jam	Beef and Egg
Raspberry Jam	Raspberry Jam	Sugar	Cheese
Blackberry Jam	Blackberry Jam	Peach Jam	Instant Rice
Beef and Gravy	Sugar	Apricot Jam	Sweetened Condensed Milk
Sugar	Salt	Cheese	Chocolate
Peach Jam	Beef and Gravy	Chicken Soup Powder	Plum Jam
Apricot Jam	Peach Jam	Pork and Beans	Raspberry Jam
Cheese	Apricot Jam	Beef Soup Powder	Peach Jam
Chicken Soup Powder	Sweet Biscuits	Salt	Corned Beef Hash
Pork and Beans	Cheese	Corned Beef Hash	Tea Bags
Beef Soup Powder	Chicken Soup Powder	Instant Coffee	Apricot Jam
Salt	Tea Bags	Beef and Gravy	Camp Pie
Tea Bags	Pork and Beans	Sweet Biscuits	Candy Creamy Fudge
Chocolate	Chocolate	Survival Biscuits	Corned Beef
Sweet Biscuits	Survival Biscuits	Tea Bags	Instant Coffee
Curry Powder	Chewing Gum	Chocolate	Luncheon Meat
Lemon Drink Powder	Curry Powder	Curry Powder	Curry Powder
Orange Drink Powder	Lemon Drink Powder	Ham and Eggs	Sweet Biscuits
Corned Beef Hash	Orange Drink Powder	Beef and Egg	Sugar
Survival Biscuits	Corned Beef Hash	Camp Pie	Blackberry Jam
Chewing Gum	Lime Drink Powder	Corned Beef	Chicken Soup Powder
Lime Drink Powder	Ham and Eggs	Lemon Drink Powder	Lime Drink Powder
Ham and Eggs	Beef and Egg	Orange Drink Powder	Beef Soup Powder
Beef and Egg	Camp Pie	Chewing Gum	Chewing Gum
Camp Pie	Candy Creamy Fudge	Luncheon Meat	Lemon Drink Powder
Candy Creamy Fudge	Corned Beef	Lime Drink Powder	Salt
Corned Beef	Luncheon Meat	Candy Creamy Fudge	Orange Drink Powder
Luncheon Meat	Cereal Block	Cereal Block	Cereal Block
Cereal Block			Survival Biscuits

TABLE 7

Exercise: Brahman Drive
Unit: 5 Pl, B Coy, 6 RAR

COMBAT RATION (ONE MAN)

76/77 RPP

POPULARITY RATINGS AND OBJECTIVE DISCARDS

ACCEPTABILITIES (Mean Score)	DISLIKES (% Users)	DISCARDS (% Users)	DISCARDS (% Components)
Peaches 2.0	Peaches 0	Peaches 0	Peaches 0
Pears 2.0	Pears 0	Pears 0	Pears 0
Two Fruits 2.0	Two Fruits 0	Two Fruits 0	Two Fruits 0
Tea Bags 1.4	Tea Bags 0	Tea Bags 0	Tea Bags 0
Potato with Onion Powder 1.4	Raspberry Jam 0	Raspberry Jam 0	Beef and Vegetables 0
Raspberry Jam 1.3	Apricot Jam 0	Apricot Jam 0	Corned Beef Hash 0
Apricot Jam 1.3	Butterscotch 0	Instant Coffee 0	Sausages and Vegetables 0
Instant Coffee 1.3	Blackberry Jam 0	Butterscotch 0	Beef with Gravy 0
Butterscotch 1.2	Plum Jam 0	Blackberry Jam 0	Pork and Beans 0
Blackberry Jam 1.2	Peach Jam 0	Plum Jam 0	Butterscotch 3
			Potato with Onion Powder 5
Plum Jam 1.2	Sugar 0	Peach Jam 0	Cheese 5
Peach Jam 1.2	Instant Coffee 5	Sugar 0	Sweetened Condensed Milk 5
Sugar 1.2	Sweetened Condensed Milk 5	Sweetened Condensed Milk 0	Ham and Eggs 5
Cheese 1.2	Lime Drink Powder 5	Sweet Biscuits 0	Chocolate 7
Sweetened Condensed Milk 1.1	Orange Drink Powder 5	Sausages and Vegetables 0	Beef and Eggs 10
Lime Drink Powder 1.0	Salt 5	Pork and Beans 0	Camp Pie 10
Orange Drink Powder 1.0	Potato with Onion Powder 6	Potato with Onion Powder 5	Luncheon Meat 10
Chicken Soup Powder 1.0	Chicken Soup Powder 6	Cheese 5	Sweet Biscuits 14
Chocolate 0.9	Cheese 11	Lime Drink Powder 5	Raspberry Jam 15
Beef and Vegetables 0.9	Chocolate 11	Beef and Vegetables 5	Lemon Drink Powder 15
			Corned Beef 15
Beef Soup Powder 0.8	Beef Soup Powder 11	Beef Soup Powder 5	Tea Bags 19
Butter Concentrate 0.8	Butter Concentrate 12	Salt 5	Instant Coffee 19
Salt 0.7	Sweet Biscuits 15	Corned Beef Hash 5	Blackberry Jam 20
Sweet Biscuits 0.7	Lemon Drink Powder 16	Beef and Eggs 5	Lime Drink Powder 20
Lemon Drink Powder 0.7	Curry Powder 18	Orange Drink Powder 10	Orange Drink Powder 20
Corned Beef Hash 0.7	Beef and Vegetables 20	Chicken Soup Powder 10	Peach Jam 25
Sausages and Vegetables 0.7	Corned Beef Hash 20	Chocolate 10	Plum Jam 25
Beef with Gravy 0.6	Beef with Gravy 20	Butter Concentrate 10	Sugar 26
Pork and Beans 0.6	Chewing Gum 20	Lemon Drink Powder 10	Apricot Jam 30
Ham and Eggs 0.6	Instant Rice 22	Beef with Gravy 10	Butter Concentrate 35
			Salt 35
Curry Powder 0.5	Sausages and Vegetables 25	Chewing Gum 10	Survival Biscuits 41
Beef and Eggs 0.5	Pork and Beans 25	Ham and Eggs 15	Beef Soup Powder 45
Camp Pie 0.4	Camp Pie 30	Camp Pie 15	Curry Powder 45
Chewing Gum 0.3	Ham and Eggs 32	Corned Beef 20	Chewing Gum 45
Instant Rice 0.3	Beef and Eggs 32	Instant Rice 25	Chicken Soup Powder 50
Corned Beef 0.0	Corned Beef 42	Curry Powder 40	Cereal Block 54
Survival Biscuits -0.6	Survival Biscuits 56	Luncheon Meat 40	Instant Rice 57
Luncheon Meat -0.6	Luncheon Meat 67	Survival Biscuits 40	
Cereal Block -0.9	Cereal Block 67	Cereal Block 40	

Exercise: Brahman Drive
Unit: 8 Pl, C Coy, 8/9RAR

COMBAT RATION (ONE MAN)
POPULARITY RATINGS AND OBJECTIVE DISCARDS

76/77 RPP

ACCEPTABILITIES (Mean Score)	DISLIKES (% Users)	DISCARDS (% Users)	DISCARDS (% Components)
Peaches 2.0	Peaches 0	Peaches 0	Peaches 0
Pears 2.0	Pears 0	Pears 0	Pears 0
Two Fruits 2.0	Two Fruits 0	Two Fruits 0	Two Fruits 0
Potato with Onion Powder 1.7	Potato with Onion Powder 0	Potato with Onion Powder 0	Sausages and Vegetables 0
Beef and Vegetables 1.5	Beef and Vegetables 0	Beef and Vegetables 0	Beef and Vegetables 0
Sausages and Vegetables 1.5	Sausages and Vegetables 0	Sausages and Vegetables 0	Raspberry Jam 0
Cheese 1.5	Cheese 0	Cheese 0	Beef with Gravy 0
Sweetened Condensed Milk 1.5	Sweetened Condensed Milk 0	Sweetened Condensed Milk 0	Pork and Beans 0
Raspberry Jam 1.4	Sugar 0	Raspberry Jam 0	Corned Beef Hash 0
Beef with Gravy 1.4	Instant Coffee 0	Beef with Gravy 0	Luncheon Meat 0
Instant Rice 1.4	Beef with Gravy 5	Sugar 0	Cheese 3
Sugar 1.3	Raspberry Jam 5	Peach Jam 0	Potato with Onion Powder 5
Instant Coffee 1.3	Instant Rice 5	Blackberry Jam 0	Ham and Eggs 5
Plum Jam 1.2	Plum Jam 5	Apricot Jam 0	Corned Beef 5
Chicken Soup Powder 1.2	Peach Jam 5	Sweet Biscuits 0	Butterscotch 7
Peach Jam 1.1	Tea Bags 5	Salt 0	Blackberry Jam 8
Tea Bags 1.1	Salt 5	Instant Rice 0	Instant Coffee 9
Blackberry Jam 1.1	Chicken Soup Powder 9	Instant Coffee 5	Beef and Eggs 9
Apricot Jam 1.0	Blackberry Jam 9	Plum Jam 5	Tea Bags 10
Sweet Biscuits 1.0	Apricot Jam 9	Corned Beef Hash 5	Instant Rice 12
Butterscotch 1.0	Butter Concentrate 9	Chicken Soup Powder 9	Sweetened Condensed Milk 13
Beef Soup Powder 0.9	Sweet Biscuits 14	Tea Bags 9	Plum Jam 14
Chocolate 0.9	Butterscotch 14	Beef Soup Powder 9	Beef Soup Powder 14
Butter Concentrate 0.8	Beef Soup Powder 14	Curry Powder 9	Sweet Biscuits 15
Salt 0.6	Chocolate 14	Pork and Beans 9	Camp Pie 15
Chewing Gum 0.6	Chewing Gum 14	Survival Biscuits 9	Chocolate 16
Curry Powder 0.6	Curry Powder 18	Butterscotch 14	Butter Concentrate 16
Pork and Beans 0.6	Survival Biscuits 18	Chocolate 14	Chicken Soup Powder 22
Corned Beef Hash 0.4	Pork and Beans 23	Butter Concentrate 14	Salt 25
Survival Biscuits 0.3	Corned Beef Hash 32	Chewing Gum 18	Sugar 27
Beef and Eggs 0.2	Ham and Eggs 32	Luncheon Meat 18	Apricot Jam 27
Ham and Eggs 0.1	Beef and Eggs 36	Corned Beef 18	Peach Jam 32
Luncheon Meat 0.0	Luncheon Meat 36	Camp Pie 18	Curry Powder 35
Corned Beef 0.0	Lemon Drink Powder 40	Beef and Eggs 23	Lemon Drink Powder 36
Camp Pie 0.0	Lime Drink Powder 40	Ham and Eggs 23	Chewing Gum 41
Lemon Drink Powder -0.1	Orange Drink Powder 41	Lime Drink Powder 32	Lime Drink Powder 41
Lime Drink Powder -0.1	Corned Beef 41	Survival Biscuits 32	Survival Biscuits 48
Orange Drink Powder -0.2	Camp Pie 41	Orange Drink Powder 32	Orange Drink Powder 48
Cereal Block -0.7	Cereal Block 55	Cereal Block 50	Cereal Block 58

TABLE 8

COMBAT RATION (ONE MAN)
POPULARITY RATINGS AND OBJECTIVE DISCARDS

Exercise: Brahman Drive
Unit: 8 Pl, C Coy, 8/9RAR

76/77 RPP

ACCEPTABILITIES (Mean Score)	DISLIKES (% Users)	DISCARDS (% Users)	DISCARDS (% Components)
Peaches 2.0	Peaches 0	Peaches 0	Peaches 0
Pears 2.0	Pears 0	Pears 0	Pears 0
Two Fruits 2.0	Two Fruits 0	Two Fruits 0	Two Fruits 0
Potato with Onion Powder 1.7	Potato with Onion Powder 0	Potato with Onion Powder 0	Sausages and Vegetables 0
Beef and Vegetables 1.5	Beef and Vegetables 0	Beef and Vegetables 0	Beef and Vegetables 0
Sausages and Vegetables 1.5	Sausages and Vegetables 0	Sausages and Vegetables 0	Raspberry Jam 0
Cheese 1.5	Cheese 0	Cheese 0	Beef with Gravy 0
Sweetened Condensed Milk 1.5	Sweetened Condensed Milk 0	Sweetened Condensed Milk 0	Pork and Beans 0
Raspberry Jam 1.4	Sugar 0	Raspberry Jam 0	Corned Beef Hash 0
Beef with Gravy 1.4	Instant Coffee 0	Beef with Gravy 0	Luncheon Meat 0
Instant Rice 1.4	Beef with Gravy 5	Sugar 0	Cheese 3
Sugar 1.3	Raspberry Jam 5	Peach Jam 0	Potato with Onion Powder 5
Instant Coffee 1.3	Instant Rice 5	Blackberry Jam 0	Ham and Eggs 5
Plum Jam 1.2	Plum Jam 5	Apricot Jam 0	Corned Beef 5
Chicken Soup Powder 1.2	Peach Jam 5	Sweet Biscuits 0	Butterscotch 7
Peach Jam 1.1	Tea Bags 5	Salt 0	Blackberry Jam 8
Tea Bags 1.1	Salt 5	Instant Rice 5	Instant Coffee 9
Blackberry Jam 1.1	Chicken Soup Powder 9	Instant Coffee 5	Beef and Eggs 9
Apricot Jam 1.0	Blackberry Jam 9	Plum Jam 5	Tea Bags 10
Sweet Biscuits 1.0	Apricot Jam 9	Corned Beef Hash 5	Instant Rice 12
Butterscotch 1.0	Butter Concentrate 9	Chicken Soup Powder 9	Sweetened Condensed Milk 13
Beef Soup Powder 0.9	Sweet Biscuits 14	Tea Bags 9	Plum Jam 14
Chocolate 0.9	Butterscotch 14	Beef Soup Powder 9	Beef Soup Powder 14
Butter Concentrate 0.8	Beef Soup Powder 14	Curry Powder 9	Sweet Biscuits 15
Salt 0.6	Chocolate 14	Pork and Beans 9	Camp Pie 15
Chewing Gum 0.6	Chewing Gum 14	Survival Biscuits 9	Chocolate 16
Curry Powder 0.6	Curry Powder 18	Butterscotch 14	Butter Concentrate 16
Pork and Beans 0.6	Survival Biscuits 18	Chocolate 14	Chicken Soup Powder 22
Corned Beef Hash 0.4	Pork and Beans 23	Butter Concentrate 14	Salt 25
Survival Biscuits 0.3	Corned Beef Hash 32	Chewing Gum 18	Sugar 27
Beef and Eggs 0.2	Ham and Eggs 32	Luncheon Meat 18	Apricot Jam 27
Ham and Eggs 0.1	Beef and Eggs 36	Corned Beef 18	Peach Jam 32
Luncheon Meat 0.0	Luncheon Meat 36	Camp Pie 18	Curry Powder 35
Corned Beef 0.0	Lemon Drink Powder 40	Beef and Eggs 23	Lemon Drink Powder 36
Camp Pie 0.0	Lime Drink Powder 40	Ham and Eggs 23	Chewing Gum 41
Lemon Drink Powder -0.1	Orange Drink Powder 40	Lemon Drink Powder 32	Lime Drink Powder 41
Lime Drink Powder -0.1	Corned Beef 41	Lime Drink Powder 32	Survival Biscuits 48
Orange Drink Powder -0.2	Camp Pie 41	Orange Drink Powder 32	Orange Drink Powder 48
Cereal Block -0.7	Cereal Block 55	Cereal Block 50	Cereal Block 58

TABLE 9
SUMMARY: ACCEPTABILITY - COMPARISONS WITH PREVIOUS SURVEYS

Exercise: Brahman Drive

Ration Packing Programme	75/76	75/76		76/77	
Sub-units	Average All Units	5 Pl, B Coy 6 RAR	8 Pl, C Coy 8/9 RAR	5 Pl, B Coy 6 RAR	8 Pl, C Coy 8/9 RAR
Dates	75-77	10-15 Oct	16-20 Oct	16-20 Oct	10-15 Oct
Average Age	23.8	21.1	22.6	20.8	22.3
Av Yrs Service	4.7	3.1	3.1	2.9	3.1
Percent Married	40	24	36	25	32
No of Subjects	2112	21	22	20	22
Cereal Block	-0.19	-1.10	-0.52	-0.89	-0.68
Survival Biscuits	-0.31	-0.45	0.19	-0.61	0.32
Sweet Biscuits	0.84	0.86	0.73	0.75	0.95
Butter Concentrate	*****	*****	*****	0.82	0.82
Cheese	1.60	1.40	1.27	1.21	1.55
Chocolate	1.06	0.86	0.77	0.95	0.91
Chewing Gum	0.93	0.24	0.18	0.30	0.59
Candy Creamy Fudge	-0.28	-1.29	-0.14	*****	*****
Butterscotch	*****	*****	*****	1.20	1.00
Sweetened Condensed Milk	1.66	1.43	1.50	1.15	1.45
Sugar	1.63	1.38	1.27	1.20	1.27
Tea Bags	1.32	1.52	0.91	1.45	1.10
Instant Coffee	1.54	1.05	1.57	1.35	1.33
Salt	1.22	0.76	0.95	0.74	0.64
Instant Rice	1.16	0.27	1.55	0.28	1.41
Potato with Onion Powder	*****	*****	*****	1.35	1.67
Curry Powder	0.81	0.38	0.68	0.47	0.64
Orange Drink Powder	0.46	0.00	0.33	1.00	-0.15
Lemon Drink Powder	0.41	-0.25	0.29	0.74	-0.10
Lime Drink Powder	0.33	-0.12	0.24	1.00	-0.10
Peaches	*****	*****	*****	2.00	2.00
Pears	*****	*****	*****	2.00	2.00
Two Fruits	*****	*****	*****	2.00	2.00
Ham and Eggs	0.57	0.65	0.09	0.58	0.09
Plum Jam	1.00	1.10	1.36	1.25	1.18
Beef and Vegetables	1.32	1.05	1.59	0.90	1.52
Pork and Beans	1.09	0.70	1.18	0.65	0.64
Raspberry Jam	1.12	0.95	1.41	1.30	1.36
Corned Beef Hash	0.68	0.50	0.32	0.75	0.36
Camp Pie	0.51	0.41	0.05	0.40	-0.05
Apricot Jam	1.02	1.00	1.27	1.30	1.05
Beef with Gravy	1.06	0.52	1.41	0.65	1.36
Sausages and Vegetables	0.87	0.81	1.68	0.75	1.50
Blackberry Jam	1.11	1.00	1.36	1.25	1.09
Beef Soup Powder	1.07	0.28	1.09	0.78	0.91
Luncheon Meat	0.41	-0.60	-0.36	-0.63	0.00
Beef and Eggs	0.52	0.70	0.00	0.53	0.23
Peach Jam	0.97	1.00	1.27	1.20	1.09
Chicken Soup Powder	1.14	0.50	1.18	1.00	1.18
Corned Beef	0.40	-0.25	-0.18	0.00	-0.05
Overall Average	0.89	0.51	0.78	0.85	0.87

TABLE 10
SUMMARY: PERCENT DISLIKE – COMPARISONS WITH PREVIOUS SURVEYS

Exercise: Brahman Drive

Ration Packing Programme	75/76	75/76		76/77	
Sub-units	Average All Units	5 Pl, B Coy 6 RAR	8 Pl, C Coy 8/9 RAR	5 Pl, B Coy 6 RAR	8 Pl, C Coy 8/9 RAR
Dates	75-77	10-15 Oct	16-20 Oct	16-20 Oct	10-15 Oct
Average Age	23.8	21.1	22.6	20.8	22.3
Av Yrs Service	4.7	3.1	3.1	2.9	3.1
Percent Married	40	24	36	25	32
No of Subjects	2112	21	22	20	22
Cereal Block	45	67	50	60	55
Survival Biscuits	45	43	14	50	18
Sweet Biscuits	17	19	5	15	14
Butter Concentrate	**	**	**	10	9
Cheese	3	10	9	10	0
Chocolate	12	14	14	10	14
Chewing Gum	12	19	14	20	14
Candy Creamy Fudge	49	71	41	**	**
Butterscotch	**	**	**	0	14
Sweetened Condensed Milk	2	10	0	5	0
Sugar	2	0	0	0	0
Tea Bags	9	0	9	0	5
Instant Coffee	7	14	0	5	0
Salt	3	5	0	5	5
Instant Rice	10	14	0	20	5
Potato with Onion Powder	**	**	**	5	0
Curry Powder	17	14	18	15	18
Orange Drink Powder	27	33	27	5	36
Lemon Drink Powder	28	43	27	15	36
Lime Drink Powder	31	38	32	5	36
Peaches	**	**	**	0	0
Pears	**	**	**	0	0
Two Fruits	**	**	**	0	0
Ham and Eggs	25	24	41	30	32
Plum Jam	9	0	0	0	5
Beef and Vegetables	7	10	0	20	0
Pork and Beans	13	19	14	25	23
Raspberry Jam	8	5	0	0	5
Corned Beef Hash	23	24	32	20	32
Camp Pie	27	29	41	30	41
Apricot Jam	10	0	5	0	9
Beef with Gravy	14	29	5	20	5
Sausages and Vegetables	20	24	0	25	0
Blackberry Jam	9	5	0	0	9
Beef Soup Powder	9	19	5	10	14
Luncheon Meat	29	52	50	55	36
Beef and Eggs	26	19	41	30	36
Peach Jam	10	5	5	0	5
Chicken Soup Powder	9	14	9	5	9
Corned Beef	30	48	41	40	41
Overall Average	16	14	15	17	22

Exercise

Annex A

*Armed Forces Food Science Establishment
Scottsdale, Tasmania*

**COMBAT RATION (ONE MAN)
USER QUESTIONNAIRE**

1. As a consumer of the rations you are in the best position to advise us on any changes that should be made.
2. Please complete this questionnaire by recording your *honest* reactions.
3. All answers will be treated as confidential.

Name and Rank

Unit Squadron Company Regiment Corps ARA
Battery ARes

(Delete words not applicable)

Age

Married ☐

Single ☐

Years of Service

Please tick whichever boxes (in each of the three sets) you think

ITEMS COMMON TO MORE THAN

- QUALITY**
- Like Extremely
- Like Moderately
- Neither Like Nor Dislike
- Dislike Moderately
- Dislike Extremely
- Did Not Try It

- AMOUNT**
- Not Enough
- About Right
- Too Much
- Discarded It

- PACKAGING**
- Satisfactory
- Too Shiny
- Too Crackly
- Too Flimsy
- Too Bulky

	Cereal Block	Survival Biscuits	Sweet Biscuits	Butter Concentrate	Cheese	Chocolate	Chewing Gum	Butter Scotch	Sweetened Condensed Milk	Sugar	Tea Bags	Instant Coffee	Salt
Like Extremely	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Like Moderately	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Neither Like Nor Dislike	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Dislike Moderately	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Dislike Extremely	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Did Not Try It	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Not Enough	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
About Right	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Too Much	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Discarded It	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Satisfactory	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Too Shiny	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Too Crackly	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Too Flimsy	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Too Bulky	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Menu A

Menu B

Menu C

- QUALITY**
- Like Extremely
- Like Moderately
- Neither Like Nor Dislike
- Dislike Moderately
- Dislike Extremely
- Did Not Try It

- AMOUNT**
- Not Enough
- About Right
- Too Much
- Discarded It

- PACKAGING**
- Satisfactory
- Too Shiny
- Too Crackly
- Too Flimsy
- Too Bulky

	Ham & Eggs	Plum Jam	Beef & Veggies	Pork & Beans	Raspberry Jam	Corned Beef Hash	Camp Pie	Apricot Jam	Beef with Gravy
Like Extremely	☐	☐	☐	☐	☐	☐	☐	☐	☐
Like Moderately	☐	☐	☐	☐	☐	☐	☐	☐	☐
Neither Like Nor Dislike	☐	☐	☐	☐	☐	☐	☐	☐	☐
Dislike Moderately	☐	☐	☐	☐	☐	☐	☐	☐	☐
Dislike Extremely	☐	☐	☐	☐	☐	☐	☐	☐	☐
Did Not Try It	☐	☐	☐	☐	☐	☐	☐	☐	☐
Not Enough	☐	☐	☐	☐	☐	☐	☐	☐	☐
About Right	☐	☐	☐	☐	☐	☐	☐	☐	☐
Too Much	☐	☐	☐	☐	☐	☐	☐	☐	☐
Discarded It	☐	☐	☐	☐	☐	☐	☐	☐	☐
Satisfactory	☐	☐	☐	☐	☐	☐	☐	☐	☐
Too Shiny	☐	☐	☐	☐	☐	☐	☐	☐	☐
Too Crackly	☐	☐	☐	☐	☐	☐	☐	☐	☐
Too Flimsy	☐	☐	☐	☐	☐	☐	☐	☐	☐
Too Bulky	☐	☐	☐	☐	☐	☐	☐	☐	☐

IN ONE VARIETY

[illegible]

Menu E

☐	☐	☐	☐		☐	☐	☐	☐
☐	☐	☐	☐		☐	☐	☐	☐
☐	☐	☐	☐		☐	☐	☐	☐
☐	☐	☐	☐		☐	☐	☐	☐
☐	☐	☐	☐		☐	☐	☐	☐

Comments:

Please tell us what aspects of the rations you found faulty. Can you suggest any improvements? (Include any "extras" that you may have taken with you into the field).

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

Thank you for your help. When the results are gathered and analysed, your thoughts could be important in improving the ration packs.

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