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DIET, IAF
DEC. 1944 - APR. 1945

1 A

From:- Air Forces Sub-Commission,
Al[illegible] Commission, Bari.

To:- Air Forces Sub-Commission,
Allied Commission, Rome.

Date:- 24th April, 1945.

Ref:- AFSC/B/976/Med.

DIETARY STATE OF THE ITALIAN AIR FORCE
PERSONNEL

B

Herewith letter and attachment received from Headquarters, Balkan Air Force, forwarded for your perusal.

[signature]
S. WILLIAMSON. F/LT.
for AIR VICE-MARSHAL,
AIR OFFICER COMMANDING.

ALLIED AIR FORCES SUB-COMMISSION COMMISSION
B.763
[illegible] 27/4
ORDERLY ROOM
974/Med

Good report which I shall mention to AVM Mills. Unfortunately not [illegible].
[initials] 28/4

Did this on 27/4
[initials] 1/5.

3085

1 B

REPORT ON THE NUTRITIONAL STATE OF ITALIAN AIR FORCE PERSONNEL AS COMPARED WITH THAT OF ROYAL AIR FORCE PERSONNEL AT HEADQUARTERS, 254 WING, R.A.F., C. M. F.

An investigation has been carried out on the Nutritional State of Italian Air Force personnel as compared with that of Royal Air Force personnel at Headquarters, No.254 Wing, with the object of assessing the different effects, if any, of the two different scales of rationing and to ascertain the adequacy or otherwise of the Rations supplied to the Italian Air Force.

The period covered by the investigation was from December, 1944, until mid-February, 1945. For the purpose of the investigation 4 groups of twenty men each were taken and fully investigated, and later a further batch of eight selected cases was taken separately. This last group will be dealt with in greater detail later in this Report. The groups consisting of :-

(a) Twenty members of Royal Air Force Air Crew.

(b) Twenty members of Italian Air Force Air Crew.

(c) Twenty members of Royal Air Force Ground Staff.

(d) Twenty members of Italian Air Force Ground Staff.

For the sake of brevity it is proposed hereafter to refer to the R.A.F. Air Crew Group as Group Rg., the R.A.F. Ground Staff Group as Rx., The Italian Air Crew Group as Ia, and the Italian Ground Staff as Iz. The individual members of each group were unselected and may be taken as being representative of their type. In the Air Crew Groups certain individuals were Officers whilst others were Warrant Officers and Senior N.C.O's.

It is obvious that any investigation into the Nutritional State of any body of men in this theatre of operations can only be conducted on gross macroscopic lines as the laboratory facilities do not permit of delicate biochemical tests being made. Many factors have to be taken into account in order to assess the effects of a diet on any body of men, such, for example, as the conditions under which they are living: their habits: their previous upbringing: their previous medical history: their clothing state and their age. This investigation has endeavoured to assess these factors and the conclusions arrived at have been made keeping these factors in mind.

The food issued to the Groups during the period of review was :-

Rg - - Normal Field Service Rations supplimented by local purchases of their respective Messes. The average daily messing supplement is valued at 20 lire perday, and consists mainly of fresh vegatables and fresh potatoes.

Rx - - This Group was also issued with normal rations once again supplemented by local purchases of fresh green vegatables and potatoes. This group also averaged 2 attendances per week at the nearby Y.M.C.A. mostly buying Tea or Coffee and Sandwiches or Buns at about 21.00 hours.

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Ia and Iz - - These two groups have had precisely the same rations and have in fact eaten in the same Cookhouse. Before the period of the investigation whilst in Western Italy they were supplied with part American and part British rations, but on coming to the Biferno area they have been supplied from Italian sources.

Several points with reference to the food itself arise :-

(a) Twenty members of Royal Air Force Air Crew.

(b) Twenty members of Italian Air Force Air Crew.

(c) Twenty members of Royal Air Force Ground Staff.

(d) Twenty members of Italian Air Force Ground Staff.

For the sake of brevity it is proposed hereafter to refer to the R.A.F. Air Crew Group as Group Rg., the R.A.F. Ground Staff Group as Rx., The Italian Air Crew Group as Ia, and the Italian Ground Staff as Iz. The individual members of each group were unselected and may be taken as being representative of their type. In the Air Crew Groups certain individuals were Officers whilst others were Warrant Officers and Senior N.C.O's.

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Several points with reference to the food itself arise :-

(i) All members of the Group Rg with 2 exceptions stated that their food was adequate or more than adequate. The 2 exceptions stated that they could eat some more tometimes but that generally speaking their appetites were satisfied. The whole group was fairly satisfied with the quality of the food and the way it was prepared. The percentage offered as to the appetising nature of the food never fell below 66% except in one case. The general impression given me was that all forms of dehydrated food were unpopular, particularly meat and potatoes. No individual in the Group had lost any weight but 2 had gained seven lbs.

(2) The Rx group were also satisfied with their food generally. They all stated that it was adequate except during cold weather when they could do with extra bread or potatoes to fill their bellies - irrespective of Nutritional value. The appetising nature was veriously assessed but was rather lower than the Rg group and once again dehydrated foodstuffs proved unpopular. Three individuals of this Group stated that they HAD to go out to get an evening meal at about 21.00 hours and five others stated that they slept better if they did so. Nobody in this Group had lost any weight during the period under review but four had gained from 2 to 6 lbs.

(3) The Ia Group all stated that the food was insufficient in quantity but that it was quite good in quality. It was stated that the main trouble was that there was insufficient food to enable them to have a light meal before operating in the mornings as was their habit, and that the rations were only sufficient to provide two meals a day with a cup of tea before operating. The whole group stated that they were forced by hunger to go out for extra meals about twice a week - especially to get fresh meat and fresh fish. All members of this Group have lost weight since coming to the Biferno area - the average loss being about 4 lbs. in 2½ months. The Officers and Senior N.C.O's pay approximately 300 - 400 lire monthly for the purchase of extras by their Mess.

(4) The Iz Group stated that their food was insufficient in quantity but good in quality. This Group messes in exactly the same way as the Ia Group but once again the complaint is lack of food in the morning. Most personnel in this Group have a meal out of camp on the average twice weekly; once again to get fresh meat and vegetables. All members of this Group have lost weight during the period under review, the average loss being about 4 lbs.

Specimen diets for the Groups are shown in Table I.

It will be seen from this Table that the main differences are :-

(a) Meat figures much less in the Italian menu than in the British.

(b) Macaroni and carbohydrates form the major portion of the Italian diet.

(c) The Italian diet is short of Fats.

(d) The Italian diet is short of Preserves.

The average calory value of the diets were :-

Rg - - 4,000 (counting supplements and one-third of a meal per day off the Camp)
Rx - - 3,600 (this does not include meals out).
Ia and Iz - - 2,750 (not counting meals out).

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Here it is convenient to include the opinion of the two Italian Medical Officers who state that in their opinion their diet is short of Fats and Jam. They also state that in their opinion the diet is adequate for Ground personnel but not for Operational Air Crew.

The initial Medical Examination was devoted mainly to ascertaining the ages: trades: the length of service: time spent Overseas together with the nature of the accommodation of the individual members of the four Groups. The results of this examination are shown in Table II. It is noteworthy that [illegible]

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The initial Medical Examination was devoted mainly to ascertaining the ages: trades: the length of service: time spent Overseas together with the nature of the accommodation of the individual members of the four Groups. The results of this examination are shown in Table II. It is noteworthy that the Group Ia has the highest average age and the longest average period of service. This is due to the fact that they are all highly experienced and picked members of the Italian Regular Air Force. The Group Iz has the second highest average age and also length of service and with three exceptions are also Regulars.

The 3 Groups Ia., Iz., and Rg., are all housed under canvas whilst the Group Rx., is housed in Nissen-type Huts.

During this preliminary examination, enquiry was made into the habits of the individuals in respect of alcohol intake, tobacco consumption and exercise. Furthermore the height, weight, body build and nutritional state were also recorded. The results of this may be seen in Table III.

It will be noted from these Tables that the Royal Air Force Personnel in general tend to be heavier height for height than the Italian personnel and their Nutritional state is also rather better. No individual from any Group could be said to be undernourished but the Italian personnel were definitely in poorer physical condition than their Royal Air Force counterparts. The R.A.F. Ground Staff mostly took little exercise but pleaded that they were too busy generally to have much time for regular exercise and were too tired after their days work. This is not considered to be the truth but merely an excuse less a poor view was taken of their not taking exercise in view of the fact that ample facilities are available.

The R.A.F.Air Crew were all in excellent physical condition and rather surprisingly all took regular exercise. It is felt that this is a little exceptional but it was noted that they were all junior members of the Squadron carrying little personal responsibility and that they were all extremely youthful. It was the exception rather than the rule for the Italian personnel of either Group to take exercise, even irregularly. This was considered to be due to two factors - one, a National laziness bred of a humid climate and a fertile soil, and, two, the lack of proper equipment or clothing.

There were no excessive drinkers or smokers among the R.A.F. personnel, most of them smoked a little but very few of them drank more than very occasionally due to the dislike of the native wines. All the Italians took a light red wine with their food but very few of them imbibed outside of meal times. Few smoked - mainly owing to the lack of tobacco and its expense when obtainable.

Next came the stage of clinical examination and the following points arose:-

(i)a. The Royal Air Force Personnel exhibited a variety of body build, but Italians all tended to be short and thick-set.

b. No single individual exhibited signs of gross under nourishment. The Rg. Group carried rather more surplus fat than the other 3 Groups.

c. All the personnel examined were healthy males - mostly in their twenties. There were no cases of acute active disease among them.

d. Previous History. (prior to time of this investigation)
Rg. Group - - There were the usual childish ailments. One man had had B.T. Malaria in 1942 but had no residual symptoms. Six gave a history of having had Gyppy Tummy on coming overseas. Two had had broken bones. No histories were given of Chronic Upper Respiratory Tract Infections.
Rx. Group - An older age group. There were the usual childish ailments. Four men gave a history of having broken bones at some time or other. Two men had a history of Rheumatism and one of Neurasthenia. Two had had Diphtheria and six gave a history of Gyppy Tummy. One man had had Malaria B.T. with 2 relapses.
Ia. Group - The oldest of all the age groups and a really tough and hard bitten group of regular fighting men. Fifteen gave a history of Malaria at some time or other. Seven had suffered from various forms of Dysentery and one was an old case of prooven Typhoid. Four gave a history of broken bones, six of assorted Venereal Diseases: three of Rheumatism: two of Pneumonia and three had been wounded.
Iz Group - A rather younger group and not giving the impression of being such a hard-bitten lot but a pretty tough crew all the same. Twelve had had Malaria: eleven assorted cases of Venereal Disease: four with Rheumatic Symptoms: Fourteen assorted Dysenteries: one Typhus in 1938: six cases of broken bones:

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e. Medical History during the period under review. :-
Rg. Group - nine of the men had had mild Rhinitis - one Tonsillitis, and one furuncle of the left knee. The tonsillitis case was in Sick Quarters for five days. The total time off duty for this Group during the period under review was 33 days. The average time off per man was 1.65 days and the average time off duty per case was 3 days. There were no cases of serious illness.

Rx. Group - There were twelve cases of mild Rhinitis of which four did not report sick or take any time off. There was one case of Acute Enteritis who was off duty for 48 hours and two men were admitted to Sick Quarters for Nasopharyngitis, one for six days and the other for five days. Two men had boils, one being off duty or on light duties for a total of nine days and the other for a total of five days. The total time lost to the Service by this Group was 44 days. Average time off duty per man was 2.2 days and per case was 3.4 days.

Ia. Group - Every man in this Group had had a mild Rhinitis at least once and in six cases off and on during the whole period under investigation. Ten men had been off flying for a day or so and four had been off from four to five days. There was one case of Venereal Disease off Duty for eleven days and one of Pneumonia off duty for four weeks. There were no cases of Skin Sepsis or boils. One case of flying stress off duty three weeks. It proved extremely difficult to assess the time off duty accurately but as near as can be reckoned the total time off was 100 days. The average time off per man was 5 days and the average time off per case was eight days. The noteworthy thing about the Group was that they had all had a cold but the majority of them were able to carry on. It appears that the Infections were not severe but the sufferers found difficulty in shaking them off. There were also three cases in this Group of Chronic Gingivitis.

Iz. Group - Only two members of this Group denied mild Rhinitis during this period. Four men were off duty for four to five days with Acute Coryza: one case of Acute Gastro-enteritis off duty for four days: three cases of Venereal Disease off duty for 16, 8 and 11 days respectively. One man had had Theumatism, one Scabies, two facial Impetigoes and three cases of Furunculosis. The total time off duty of the Group was 133 days. Time off per man was 6.6 days and time off per case 7.7 days.

(2) Ophthalmic Examination. A full Ophthalmic Investigation was carried out on all four Groups but revealed no significant differences between the Groups. On the whole the Group Rg. was slightly better than the Group Ia as regards Visual Acuity, but on the other hand the Group Iz was better than the Group Rx. There was no history of any Eye Disease during the period under review and examination failed to demonstrate any cases of Chronic Blepharitis, Chronic Conjunctivitis or other inflamatory conditions. No cases were seen of Xerophthalmia which is found in cases of Vitamin A difficiency. The fundi of all personnel were within normal limits.

(3) Haematological Examination. A haemoglobin investigation was carried out on the four Groups and the resultant percentages were :-

Rg - 98% average. Varied from 95% to 105%.

Rz - 98% average. Varied from 90% to 105%.

Ia - 95% average. Varried from 85% to 100%.

Iz - 92% average. Varied from 80% to 105%.

It is noted that Italian personnel gave a slightly lower average gaemoglobin percentage. One Italian in the Iz Group was definitely anaemic. (micrpcytic type).

(4) Muscular Power and Endurance. The muscular power of the four Groups was estimated roughly and the general impression obtained was that the Iz Group was on the average the most powerful. There were no significant differences. Vital capacities of the four Groups were not estimated.

(5) Breath Holding and 40mm Test. The individual members of each Group were made to hold their breath and the average time that this proved possible was :-

Rg. - 1 minute. 37 seconds. Rx. - 57 seconds.

Iz. Group - Only two members of this Group denied mild Rhinitis during this period. Four men were off duty for four to five days with Acute Coryza: one case of Acute Gastro-enteritis off duty for four days: three cases of Venereal Disease off duty for 16, 8 and 11 days respectively. One man had had Theumatism, one Scabies, two facial Impetigoes and three cases of Furunculosis. The total time off duty of the Group was 133 days. Time off per man was 6.6 days and time off per case 7.7 days.

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(5) Breath Holding and 40mm Test. The individual members of each Group were made to hold their breath and the average time that this prooved possible was :-

Rg. - 1 minute. 37 seconds. Rx. - 57 seconds.

Ia. - 1 minute. 19 seconds. Iz. - 1 minute. 3 seconds.

The result of the 40mm. Tests were :-

Rg. - 1 minute. 17 seconds. Ia. - 1 minute. 11 seconds.

Rx. - 53 seconds. Iz. - 1 minute. 7 seconds.

It is considered that the slightly lower levels obtained by the two Italian Groups were due to their unfamiliarity with the Test rather than a definite difference in their lung capacity.

(6) Cardiac Examination. Cardio-vascular systems were examined with the following results :-

Rg. - Average resting Pulse 76 per minute. Following exercise (this consisted of lying down and getting up again to the standing position 10 times) 126 to the minute and the average time taken to return to normal was 33 seconds.

Rx. - Average resting Pulse 74 per minute. After exercise 114 per minute and return to normal 25 seconds.

Ia. - Average resting pulse 80 per minute. After exercise 120 per minute and return to normal 30 seconds.

Iz. - Average resting Pulse 84 per minute. After Exercise 120 per minute and return to normal 40 seconds.

The blood pressures of all personnel were taken and all fell within normal limits. The average blood pressures all fell within 5mm of Mercury of each other and are therefore not included. The Rg. Group's figures for Exercise were noted with surprise especially the time taken for the cardiac rate to return to normal and therefore four or five Royal Air Force Officers who were not members of Air Crew were treated in the same way and gave the following figures :- 72 - 100 - 23 seconds.
84 - 132 - 45 seconds.
84 - 132 - 45 seconds.
74 - 96 - 25 seconds.

(7) It was noted that the standard of Dental Hygiene prevailing among the Italian Air Force Personnel was of particularly low standard, and that there were six cases of Chronic Gingivitis out of the 40 men examined. A query was raised as to whether or no this might be due to a relative lack of Ascorbic Acid and it was decided that to select a number of cases of Acute Stomatitis and to treat them with large doses of Ascorbic Acid might provide an answer to the query. Eight cases of Acute Ulcerating Gingivitis were Selected and referred to Unit Dental Officer who treated them in conjunction with the Wing Senior Medical Officer. They were treated by daily cleansing of the mouth with Chromic Acid 10% solution followed by Hydrogen Peroxide daily together with Antiseptic Mouthwashes every four hours. In addition they receive 12,000 Units of Vitamin C daily for 14 days. All the eight cases cleared up most satisfactorily under this treatment, the average time under treatment being 17.5 days. The general incidence of Acute and Chronic Gingivitis among Italian Air Force personnel on this Unit is three times that of the Royal Air Force and they take approximately twice as long to clear up under treatment. The Unit Dental Officer considers that reasons for both the high incidence or oral sepsis and the long time taken for it to clear up under treatment are:-

1. Poor training in Dental Hygiene.

2. The acute shortage of Tooth Brushes and Tooth Paste among the Italian personnel.

3. A very poor standard of Italian conservative Dentistry.

4. The frequent use of poor quality metal crowns.

5. Possibly a low grade of vitamin efficiency.

SUMMARY :-

1. Italian Air Force Personnel are lighter in weight, height for height

Iz. - Average resting Pulse 84 per minute. After Exercise 120 per minute and return to normal 40 seconds.

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1. Poor training in Dental Hygiene.

2. The acute shortage of Tooth Brushes and Tooth Paste among the P/W personnel.

3. A very poor standard of Italian conservative Dentistry.

4. The frequent use of poor quality metal crowns.

5. Possibly a low grade of vitamin efficiency.

SUMMARY :-

1. Italian Air Force Personnel are lighter in weight, height for height, than R.A.F. Personnel but this is considered to be a national characteristic rather than a nutritional defect.

2. From gross Physical Examinations there was no evidence of Malnutrition or Vitamin deficiency disease among the Italian Groups.

3. Health Record of the Italian Personnel is distinctly worse than that of the R.A.F. Groups, there being between two and three times as much minor sickness. This was almost entirely comprised of Infections of the Upper Respiratory Tract. Before assigning any single reason for this fact there are the following additional points to make :-

(a) The Sickness Rate did not start to rise until they had been on Italian Rations for six weeks. Previously they had been on half American, and half British Rations and metaphorically "living on the fat of the land" The increase in the Sickness Rate also coincided with the onset of inclement weather.

(b) These Italian Air Force Personnel are most inadequately clad for inclement weather, especially rain and are bound to suffer severly from exposure. Many had never been issued with Boots even.

(c) The drying and heating facilities on the Italian Camp were almost Nil, and their personnel were often forced to put on damp cloths.

4. Italian Air Force Personnel are unable to supplement their diet to the extent that Royal Air Force Personnel can and do for two reasons :-

(a) They cannot afford it.

(b) There is no Canteen or Y.M.C.A. that they can use.

5. Italian Air Force Personnel have all lost weight, the average being three to four lbs. during two-and-a-half months. This may be due to an inadequate diet or the loss of superflous fat acquired from rich living in Western Italy by now being on a less full diet combined with hard weather conditions and heavier work.

6. There is a high incidence of oral sepsis among Italian Personnel.

7. There is no evidence of gross Avitaminosis.

8. Italian Air Crew have been forced to operate on an empty stomach. A bad thing.

CONCLUSION. :-

It is considered that the diet of the Italian Air Force, as issued, is deficient in Fats and fat soluble vitamins. The only forms in which fats are issued are in the shape of tinned meats; olive oil and a small amount of cooking fats. The fats in these forms are almost invariably cooked thus tending to destroy their Vitamin A content. They are also probably short of Vitamin B. It would appear that the diet contains adequate calories, to meet everyday requirements but that it is ill-balanced and that it is too rich in Carbo-hydrates and too poor in Fats. Furthermore the Italian methods of preparing their food are considered to be wasteful and not to make the most of what they have got. The high rate of illness is almost certainly due to a combination of factors in which poor cloths: shortage of soap: shortage of tooth paste and tooth brushes play a far larger part than does dietry efficiency. The hygiene, both personal and general, of the Italian Camp and its inmates appears to be considered to have a detrimental effect on the health. It is considered that the issue of a small quantity of Butter or Margerine to members of Air Crew (say 1½ ozs. per person per day to be used ONLY in the uncooked state) and the allocation of a number of tooth brushes and supply of tooth paste would help considerably. Also a small allowance of Jam or similar preserve would enable the Air Crew to operate with something in their stomachs and with the approach of the warmer weather and the fruit and vegetable season would go a long way towards eliminating any question of cases of Vitamin deficiency diseases occuring.

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8. Italian Air Crew have been forced to operate on an empty stomach. A bad thing.

CONCLUSION. :-

It is considered that the diet of the Italian Air Force, as issued, is defi-cient in Fats and fat soluble vitamins. The only forms in which fats are issued are in the shape of tinned meats; olive oil and a small amount of cooking fats. The fats in these forms are almost invariably cooked thus tending to destroy their Vitamin A content. They are also probably short of Vitamin B. It would appear that the diet contains adequate calories, to meet everyday requirements but that it is ill-balanced and that it is too rich in Carbo-hydrates and too poor in Fats. Furthermore the Italian methods of preparing their food are considered to be wasteful and not to make the most of what they have got. The high rate of illness is almost certainly due to a combination of factors in which poor cloths: shortage of soap: shortage of tooth paste and tooth brushes play a far larger part than does dietry efficiency. The hygiene, both personal and general, of the Italian Camp and its inmates is also considered to have a detrimental effect on the health. It is considered that the issue of a small quantity of Butter or Margerine to members of Air Crew (say 1½ ozs. per person per day to be used ONLY in the uncooked state) and the allocation of a number of tooth brushes and supply of tooth paste would help considerably. Also a small allowance of Jam or similar preserve would enable the Air Crew to operate with something in their stomachs and with the approach of the warmer weather and the fruit and vegetable season would go a long way towards eliminating any question of cases of Vitamin deficiency diseases occuring.

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[redacted] Regd. No. 135017

[redacted]

ROYAL AIR FORCE - SPECIMEN DAYS MENU

AIRCREW GROUP

Breakfast :- Porridge.
Fried Egg and Rashers,
or Bacon.
or Fried Fish.
Bread, Margarine, Jam or Honeycomb.
Tea (milk and sugar)

Lunch :- Soup.
Boiled Beef,
Potatoes, Carrots.
Dried Fruit and Custard,
Tea, Bread and Margarine, Cheese.

Dinner :- Soup.
Roast Pork, Greens,
Potatoes, Carrots.
Rice and Jam.
Tea, Bread and Butter.

GROUND CREW

Porridge.
Fried Bread &
Egg Powder.
Bread, Margarine.
Jam or Honeycomb.
Tea (Milk and Sugar)

Boiled Beef.
Potatoes, Carrots.
Bread and Jam.
Cheese.
Tea, (Milk and Sugar)

Bread and Jam.
Butter.
Tea.

Also all Royal Air Force Personnel are able to obtain Food and Drink at the N.A.A.F.I. and Wine Canteen.

ROYAL AIR FORCE - SPECIMEN DAYS MENU

0.30 - 0.60 hours. Cup of Cocoa.
Sometimes Bread.
Very little Bread -
Local rare this.

12.30 hours - Fresh Meat Once. Salmon twice week
Mutton 2-3 times weekly.
Lamb 4 times a week.
Corned Beef - Diced Pork,
Diced Fish.
Fresh Potatoes, twice a week, Vegetable 3 twice
a week, Salads once a week.

17.00 hours - Minestrone.
Diced Meat,
Cheese.
Bread - Wine.
Never Margarine, Really Jam.

TABLE II

ALL REGULAR AIR FORCE

	AGE IN YEARS				TRADE - SERVICE				TRADE - CIVILIAN			SERVICE IN		
	Ia	Iz	Rg	Rx	Ia	Iz	Rg	Rx	Ia	Iz	Rg	Ia	Iz	R
1	27	24	19	23	Pilot	Fitter	A.G.	Cook		Regular	Printer	Cook	9	5	1
2	29	23	22	21	Pilot	Cook	Nav.	A.C.H.		Regular	Clerk	Labourer	9	7	
3	33	24	20	23	A.G.	Fitter	W.op/A.G.	A.C.H.		Regular	Clerk	Labourer	12	6	
4	22	29	24	21	Nav.	Fitter	A.G.	D.M.T.		Regular	Farm Labourer	Driver	4	10	1
5	25	42	20	29	Pilot	B. A.	Fitter	Fitter		Clerk	Post Officer	Electron.	7	4	1
6	27	23	23	36	Pilot	Elec.	Pilot.	Fitter		Regular	Surveyor	Garage-Mechanic	9	9	
7	[illegible]	22	24	29	Nav.	Fitter	A.G.	Fitter		Regular	Labourer	Watch-Maker	11	4	4
8	28	23	21	21	A.G.	A.C.H.	Nav.	Teleph.		Regular	Clerk	Student	7	6	2
9	22	21	20	22	A.G.	A.C.H.	W.Op/A.G.	M.A.		Regular	Shop Assistant	Student	5	3	2
10	27	26	20	20	Pilot	Fitter	B.A.	Fitter		Mechanic	Commercial-Traveller	Student	7	7	2
11	35	24	27	21	Pilot	Arm.	A.G.	Arm.		Regular	Farmer	Student	13	6	2½
12	29	23	21	32	Nav.	Arm.	Pilot	Arm.		Regular	Student	Carpenter	9	4	5½
13	27	21	24	21	Nav.	A.C.H.	A.G.	Fitter		Regular	Railway Worker	Student	7	2½	4
14	22	19	20	22	A.G.	A.C.H.	B.A.	A.C.H.		Regular	Clerk	Clerk	4	1	2½
15	[illegible]	22	22	21	A.G.	Arm.	Pilot.	D.M.T.		Regular	Clerk	Driver	1½	4	3½
16	23	21	22	24	A.G.	Arm.	W.Op/A.G.	D.M.T.		Regular	Clerk	Driver	4	3	3.1
17	25	26	26	36	Pilot	Fitter	A.G.	Elect.		Clerk.	Steel Worker	Regular	6	7	3½
18	[illegible]3	22	24	21	A.G.	Fitter	P ilot	Fitter		Regular	Draughtsman	Student	4	4	4½
19	29	[illegible]4	23	22	Pilot	Fitter	Nav.	D.M.T.		Regular	Garage Hand	Labourer	10	6	3
20	27	25	26	21	Pilot	Arm.	A.G.	M.T.M.		Regular	Coach Builder	Garage-Hand	9	7	4

TABLE II

ALL REGULAR AIR FORCE

SERVICE			TRADE - CIVILIAN				SERVICE IN YEARS				OVERSEAS SERVICE			
Iz	Rg	Rx	Ia	Iz	Rg	Rx	Ia	Iz	Rg	Rx	Ia	Iz	Rg	Rx
Fitter	A.G.	Cook		Regular	Printer	Cook	9	5	14/12	4	4	3	8/12	2
Cook	Nav.	A.C.H.		Regular	Clerk	Labourer	9	7	2	2	4	4	1½	10/12
Fitter	W.op/A.G.	A.C.H.		Regular	Clerk	Labourer	12	6	2	3	4	4	10/12	10/12
Fitter	A.G.	D.M.T.		Regular	Farm Labourer	Driver	4	10	1¼	2	2	4	8/12	1
B. A.	Fitter	Fitter		Clerk	Post Officer	Electron.	7	4	1¾	5	4	-	14/12	3½
Elec.	Pilot.	Fitter		Regular	Surveyor	Garage-Mechanic	9	9	4	5	4	4	1¼	3
Fitter	A.G.	Fitter		Regular	Labourer	Watch-Maker	11	4	4½	4½	4	2	3½	2.1/12
A.C.H.	Nav.	Teleph.		Regular	Clerk	Student	7	6	2¾	3	3	4	2½	1.1/12
A.C.H.	W.Op/A.G.	M.A.		Regular	Shop Assistant	Student	5	3	2	4.1/12	2	1	¾	2.1/12
Fitter	B.A.	Fitter		Mechanic	Commercial-Traveller	Student	7	7	2	1.2/12	4	4	1.4/12	8/12
Arm.	A.G.	Arm.		Regular	Farmer	Student	13	6	2½	3	4	2	1.10/12	10/12
Arm.	Pilot	Arm.		Regular	Student	Carpenter	9	4	5½	4⅓	6	2	2½	1.10/12
A.C.H.	A.G.	Fitter		Regular	Railway Worker	Student	7	2½	4	3.5/12	2	-	3.2/12	1.5/12
A.C.H.	B.A.	A.C.H.		Regular	Clerk	Clerk	4	1	2⅓	6	2	-	2.1/12	2
Arm.	Pilot.	D.M.T.		Regular	Clerk	Driver	1½	4	3½	2	-	2	2.1/12	2
Arm.	W.Op/A.G.	D.M.T.		Regular	Clerk	Driver	4	3	3.1/12	4	2	1	11/12	1
Fitter	A.G.	Elect.		Clerk.	Steel Worker	Regular	6	7	3¾	13	4	4	3.1/12	6½
Fitter	Pilot	Fitter		Regular	Draughtsman	Student	4	4	4½	4	-	-	10/12	2
Fitter	Nav.	D.M.T.		Regular	Garage Hand	Labourer	10	6	3	4	4	2½	2	2.1/12.
Arm.	A.G.	M.T.M.		Regular	Coach Builder	Garage-Hand	9	7	4	2.1/12	2	4	2.5/12	1.10/12

TABLE. III

	Height.		Weight.(lbs)		Alcohol		Tobacco.		Exercise.		Body Build.	
	Ia	Rg	Ia	Rg	Ia	Rg	Ia	Rg	Ia	Rg	Ia	Rg
1	68	67	138	140	2 Ntls.p.d.	Nil	Nil	Nil	Nil	Walking	Medium	Stocky
2	70	71	170	161	2 " "	Neglig	Nil	Nil	Nil	F.B.S.W.	Medium	Medium
3	66	67	132	135	3 " "	Nil	5 cigs.p.d.	10 Cigs p.d.	Nil	S.B. W	Spare	Spare
4	70	71	160	175	2 " "	Neglig	10 cigs.p.d.	10 cigs.p.d.	Nil	W	Heavy	Heavy
5	64	69	110	173	4 " "	Neglig	Nil	20 cigs p.d.	S.B.	F.B. S.B.	Slim	Heavy
6	70	64	168	128	3 " "	Neglig	Nil	15 cigs p.d.	F	W	Slim	Spare
7	66	67	140	140	4 " "	Neglig	Nil	20 cigs p.d.	F	W	Spare	Spare
8	65	72	132	170	2 " "	Avge	25 cigs p.d.	Nil	Nil	F W	Medium	Spare
9	67	66	135	125	6 " "		10 cigs p.d.	10 cigs p.d.	Nil	W	Medium	Spare
10	64	68½	112	140	2 " "	Neglig	Nil	10 cigs p.d.	Nil	F R	Slim	Spare
11	64	82⅛	114	162	2 " "	Nil	Nil	Nil	S.B.	W	Slim	Heavy
12	65	70	114	148	1 " "	Nil	Nil	20 cigs p.d.	Nil	F R	Medium	Average
13	65	66	120	154	1½ " "	Neglig	10 cigs p.d.	20 cigs p.d.	Nil	F S.B.	Medium	Stockey
14	64	71	130	160	2 " "	Nil	5 cigs p.d.	30 cigs p.d.	S.B.	F S.B.	Medium	Slim
15	62	71	110	165	2 " "	Avge	Nil	20 cigs p.d.	Nil	S.B. W	Slim	Slim
16	72½	67½	170	148	1 " "	Avge	Nil	20 cigs p.d.	Nil	F.W.	Heavy	Medium
17	64	68	112	148	3 " "	Nil	10 cigs p.d.	15 cigs p.d.	Nil	S.B. W	Slim	Medium
18	66	68	125	126	2 " "	Neglig	Nil	20 cigs p.d.	F	W	Slim	Slight
19	66	68	121	138	2 " "	Neglig	Nil	10 cigs p.d.	F	F. S.B. W	Medium	Medium
20	67	70	130	160	4 " "	Nil	20cigs p.d.	20 cigs p.d.	Nil	W	Medium	Heavy

Key to Symbols:- P =Poor. G= Good. E=Excellent A=Average F= Air W=Walking F=Footbal R=Rugger C=Cricket S.B= Soft

TABLE. III

Alcohol		Tobacco.		Exercise.		Body Build.		Nutrition.	
Rg	Ia	Rg	Ia	Rg	Ia	Rg	Ia	Rg	
p.d. Nil	Nil	Nil	Nil	Walking	Medium	Stocky	G	E	
" Neglig	Nil	Nil	Nil	F.B.N.W.	Medium	Medium	C	G	
" Nil	5 cigs.p.d.	10 cigs p.d.	Nil	S.B. W	Spare	Spare	A	E	
" Neglig	10 cigs.p.d.	10 cigs.p.d.	Nil	W	Heavy	Heavy	C	E	
" Neglig	Nil	20 cigs p.d.	S.B.	F.B. S.B.	Slim	Heavy	G	G	
" Neglig	Nil	15 cigs p.d.	F	W	Slim	Spare	A	E	
" Neglig	Nil	20 cigs p.d.	W	W	Spare	Spare	G	C	
" Avge	25 cigs p.d.	Nil	Nil	F W	Medium	Spare	A	G	
"	10 cigs p.d.	10 cigs p.d.	Nil	W	Medium	Spare	A	G	
" Neglig	Nil	10 cigs p.d.	Nil	F R	Slim	Spare	C	G	
" Nil	Nil	Nil	S.B.	W	Slim	Heavy	G	E	
" Nil	Nil	20 cigs p.d.	Nil	F R	Medium	Average	G	G	
" Neglig	10 cigs p.d.	20 cigs p.d.	Nil	F S.B.	Medium	Stockey	G	G	
" Nil	5 cigs p.d.	30 cigs p.d.	S.B.	F S.B.	Medium	Slim	A	G	
" Avge	Nil	20 cigs p.d.	Nil	S.B. W	Slim	Slim	A	G	
" Avge	Nil	20 cigs p.d.	Nil	F.W.	Heavy	Medium	E	G	
" Nil	10 cigs p.d.	15 cigs p.d.	Nil	S.B. W	Slim	Medium	A	G	
" Neglig	Nil	20 cigs p.d.	F	W	Slim	Slight	A	G	
" Neglig	Nil	10 cigs p.d.	F	F. S.B. W	Medium	Medium	E	G	
" Nil	20cigs p.d.	20 cigs p.d.	Nil	W	Medium	Heavy	E	E	

Cool. E=Excellent A=Average F=Fair W=Walking F=Footbal R=Rug er C=Cricket S.B= Soft Ball R=Running