MEMORANDUM TO MR. W. F. FRIEDMAN, NSA SCIENTIFIC ADVISORY BOARD

SUBJECT: Tests of Crypt Ability

1. When Professor Wilks visited GCHQ recently he inquired into the processes used here for selecting employees who may be expected to do well at cryptanalysis. I have now secured copies (see inclosures) of some tests used at GCHQ as an aid in selecting candidates for positions as B IV's.

2. Employees of GCHQ are in three categories: A, Administrative; B, Technical; and C, Executive, or what we would call Clerical. Holders of the A grades are carefully picked for outstanding general ability, and are expected to be the key members of the organization. B's are picked for promise of technical proficiency, in language, mathematics, or whatever. C's are usually picked from the graduates of pre-college schools.

3. In order to apply for a B IV rating, a candidate must have taken a first or second class degree from a university. The field of concentration need not have been language or mathematics (actually one of the candidates selected this year had concentrated in English literature). Fifty or sixty having the requisite degree applied to GCHQ last summer, and of these fifteen were invited to come for interviews and tests. Along with the applicants fresh from the universities, a few people already holding other grades in GCHQ applied for B IV's, and some of these also took the tests. From all these six were selected for positions, four from the new applicants and two from those already working at GCHQ.

4. There were three tests: (1) Progressive Matrices, 1947, one hour, but candidates were asked to mark the place they had reached after 40 minutes; (2) ISH Test (copy inclosed), 40 minutes; and (3) Problems (copy inclosed). The Progressive Matrices, 1947, can only be obtained by arrangement with the author, Mr. J. C. Raven, Crichton Royal, Dumfries, Scotland. An example of this sort of test can be seen in
Progressive Matrices, 1938, also by Mr. Raven, a sample set of which may be obtained, with accompanying literature, from H. K. Lewis and Company, Gower Street, London, W.C. 1, for one pound. The test consists of a series of diagrams, the symmetry of which needs to be completed by the addition of one image from a number pictured at the bottom of the page. Thus, in its simplest form, a matrix showing columns of dots, crosses, and circles might be completed by the addition of a circle of the appropriate size, if this were the short column.

5. The ISH test has been given experimentally to several cryptologists at GCHQ, and it is considered an interesting test of imagination and accuracy in translation. The problems presented involve the solution of obvious transposition busts, with a much more challenging test of the candidate's crypt ability in the supplementary problems. None of the candidates had time, as it turned out, for the supplementary problems.

6. The results of the tests were not decisive in the choice of candidates. Candidates are selected on the basis of their university's recommendation and on the interview at GCHQ. The tests may be regarded as a check on the other evidence about a candidate, but a candidate would hardly be selected if he were quite hopeless at the tests.

7. Some further information about the personnel policies affecting A and B Class members of GCHQ may be of interest. Inclosed is one copy (for the Chairman, NSA Scientific Advisory Board) of the British Civil Service announcement of the A and B class positions available at Cheltenham. Nothing much beyond what is said in these circulars about the nature of the work is told to possible candidates in the course of recruitment, but members of the appointment boards at both Oxford and Cambridge have been indoctrinated and given a tour of GCHQ. Also there are still alumni of the war-time GCHQ organization on the faculties of the British universities who can look about for promising recruits among their students.

8. It will be noted from the circulars that all appointments proposed after interviews at GCHQ must be reviewed by the Civil Service Commission. And the classes A, B, and C correspond to regular civil service classes. In practice, division, branch, and some section heads in the more difficult technical fields are holders of A grades, and analysts and cryptologists with less administrative responsibility are B class.

9. The salary scales mentioned in the circulars are now out of date, the amounts having been increased by from 50 to 200 pounds.

10. Promotion at GCHQ depends on annual ratings and interviews before promotion boards. In the annual (confidential) rating the supervisor may mark the employee as (1) not yet qualified, (2) qualified, or
(3) highly qualified for promotion to the next grade. These recommendations by the various supervisors are standardized by division heads and then by the Personnel Officer and entered on lists of qualified and highly qualified candidates for promotion to each grade. The consideration of the candidates takes into account the annual performance ratings (about 50%), seniority (about 20%), and the interview before the promotion board (about 30%). The promotion board before whom the candidate is invited to appear has as its chairman the Personnel Officer or his representative, and includes two members of GCHQ at least two grades senior to the candidate and a representative of the candidate's division. The candidates finally selected are entered in one of two lists, one for immediate, one for eventual, promotion, which are sent to the Director for approval. But vacancies in the grade concerned must occur before promotion can take place.

5 Incls:
1. Translation from the ISH
2. Problems
3. Supplementary Problems
4. Recruitment to the "A" Class etc. (142/54) (Copy for Mr. Friedman only)
5. Recruitment to the "B" Class etc. (258/54) (copy for Mr. Friedman only)

Distribution:
Mr. Friedman (Org. & 2 w/1 set of Incls)
DD/PERS
NSA-14
DD/PROD
NSA-0643
File
SUPPLEMENTARY PROBLEMS.

3. Is it possible to solve problems 1 and 2 without recourse to anagramming? (By anagramming we mean putting the columns together so as to make words along the rows. If a method is available which avoids anagramming it could be used if the texts had been substituted in some way before being transposed).

4. Suppose the two texts in Problem 2 had been transposed by means of two different keys of the same length. Could we tell from the positions of the repeats that the two keys were different? Would it be possible to obtain the two keys without recourse to anagramming?
TRANSLATION FROM THE ISH

INTRODUCTION

The following short piece for translation has the superficial appearance of being rather facetious nonsense. The "language" has, however, a simple grammar, given below, and you are also given a vocabulary containing short "dictionary entries" for the basic words in the piece. Compound words are not given in the vocabulary, but their formation is simple; for example, SHUDDER being a verb meaning "to vibrate" and BOR a noun meaning "a drill" SHUDDER-BOR is the compound noun in this language for a road-drill. With the aid of the grammar and vocabulary given, translate the piece as if from a real language.

Marks will be given for producing a convincing translation into English, that is to say one that makes sense and can be justified in the light of the data given.

GRAMMAR

ISH has a very simple grammar.

Verbs end in "-er" for all forms, including participles and verbal nouns, except the past tenses in which "-er" is changed to "-ar", and the future for which it is "-or".

Singular and plural of nouns are not distinguished and the only 3rd personal pronoun is "e", possessive "is", objective "im", used for "he, his, him, she, they" etc.

There is no article. Prepositions and conjunctions are often omitted.

VOCABULARY

| NUMWUN       | ... first, principal, preceding, preliminary. |
| NATTER       | ... to speak, say, tell                       |
| GAIN         | ... again, against                           |
| CHAP         | ... servant, minister                         |
| WOG          | ... abroad, foreign                          |
| CALLER       | ... to cause                                  |
| SCATTER      | ... to send out                               |
| APPER        | ... to appear                                 |
| SCRATCHER    | ... to write                                  |
| VIP          | ... great, important, main                    |
| DOG          | ... day                                      |
| SWIZ         | ... lightning, electricity                    |
| ALLARMER     | ... to warn, alarm                            |
| THING        | ... affair, thing, article                    |
| IN           | ... in                                      |

PIECE OF ISH FOR TRANSLATION

Numwun-Chap callar is scratcher-chap swiz-natter Wog-thing
Scratcher-Chap caller in numwun-scratcher swiz-scratcher scatter
Vip-Scratter-Chap & Scatter-Chap wog, allamer in allamer
scratche-r-thing gain appor in vip Ish dog-scratche-r & natter
in gain-natter im.
The first message has 5 columns of 5 letters and 2 short ones of 4 letters, the second has 6 columns of 5 letters and 1 short one of 4 letters. Column 3 is short in both messages and is therefore the right-hand column. Column 6 is short in the first message and long in the second and is therefore the next to the right-hand column.

(a) 6 3
IN
ND
TH
TH

(b) 6 3
IF
ND
TH
NT
TH

It now looks as if the T in column 3 of (b) is the same as the T in column 6 of (a) and so we expect an H after it. This H would come at the bottom of the left hand column of (b). Column 4 has such an H, so we try that on the left

(a) 4 6 3
A
IN
ND
TH
TH

(b) 4 6 3
A
IN
ND
TH
TH

We now want an H in the next to the left hand column of (b) and column 1 provides one.

(a) 4 1 6 3
AB
IN
ND
TH
TH

(b) 4 1 6 3
AB
IN
ND
TH
TH

It is now clear that we are well on the way to recovering the original texts, and the order of the remaining three columns is quickly found.

1. Here are two cipher messages. Can you recover the original texts?

(a) NSIUSO TEAST IMNAS ITIGN HENEL
ASIEA TILIN IEOLN WonaE IORYN Y

(b) NSIUSO KLEAB TUITA SITNY OPHYN
NAAN EINL WINEBT IROCH YIL

2. Here are another pair of messages. Can you recover the original texts?

(a) WUBOE RTSE EYAHN TSUSI HNOEA
WERSY KRESA IRHIA WTPOT IHOTE
FSEAL EOHIL EN

(b) AGOST OVLAD HNOEA WNNIS ORHLS
EHSRS USRSE IRHIA TIOEP SSALY
NSLED YIVEN UBDKI LEHYN K
PROBLEMS

A message can be put into cipher by transposing the order of its letters in the following way. A key consisting of the figures from 1 upwards arranged in an agreed order is provided, e.g.

4 1 7 2 5 6 3

The message is written in lines with one letter under each figure of the key, a new line being begun after the last figure of the key.

4 1 7 2 5 6 3
A B I R D I N
T H E H A N D
I S W O R T H
T W O I N T H
E B U S H

The cipher version is now obtained by withdrawing the columns in order according to the key each column being read downwards.

BREW BHOIS IEHEA TITID ARPHI INTIDE YOU

Here is another message with nearly the same text enciphered in the same way and with the same key.

4 1 7 2 5 6 3
A B I R D I N
T H E H A P D
I S W O R T H
F O U R I P T
H E B U S H

BREEE RHOU INTID TAMID ARPHI INTID EUB

If we are given the two cipher versions, we can see that they have been obtained by transposing almost identical texts in this way, because if we divide them into seven columns the tops of the columns are the same for each.

1 2 3 4 5 6 7
(a) BREWB/PHOIS/THIE/ATIT/DAHR/INTD/LENU

1 2 3 4 5 6 7
(b) BREOE/RHORU/ATIT/AIH/DARH/INTH/LENU

We can now recover the original message texts by putting the columns in order so that we can read words along the rows. A start can be made as follows:-
11. **Starting Salary**

(I) Successful candidates will be appointed to the A.IV grade. For a man in Cheltenham working the standard week of 45½ hours, the total remuneration on appointment is about £515 if he has done two years' compulsory National Service, and about £458 if he has not. For a woman it is about £458. These amounts are made up as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary (see (i))</td>
<td>£500 or £445</td>
</tr>
<tr>
<td>Extra Duty Allowance (see (ii))</td>
<td>£15 or £13</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>£515 or £458</strong></td>
</tr>
</tbody>
</table>

(i) **SALARY**

(a) The scale of salary in London is, for a man, £470 rising by annual increments of £30 to £680, and then by annual increments of £25 to £855; for a woman it is £470 rising by annual increments of £25 to £545, by annual increments of £30 to £725, and then by one further increment to a maximum of £750.

(b) Successful candidates who have rendered full-time service in H.M. Forces under the National Service Acts (including voluntary service in so far as it has been undertaken in lieu of compulsory National Service) will have their starting pay increased by one increment for each complete year of such service up to a maximum of two. Candidates with less than two years' service will receive incremental credit for any fraction of a year.

(c) At the end of two years' actual established service in the grade (or on completion of probation if that should be later) men and women will receive a special increase of £50. Where an annual increment is due on the same date, it will be paid in addition to the special increase.

(d) The London salary calculated under (a) to (c) is subject to deduction for officers who are serving outside London. The deduction varies from £12 to £40 according to salary and town. In the Cheltenham area, where the majority of A.IV's are employed, the scale ranges from £445 to £515 for men, and from £445 to £720 for women.

(ii) **EXTRA DUTY ALLOWANCE**

An extra duty allowance is payable (see under "Hours"). In Cheltenham, this amounts to three per cent. of the salary.

(II) If you are already a civil servant, your starting salary as a Grade A.IV Officer will be as shown above, whatever your existing salary may be.

12. **Prospects**

The career open to a new entrant is good. Above the A.IV grade the grades and salaries in the Departmental "A" Class are as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Salary in Cheltenham</th>
</tr>
</thead>
<tbody>
<tr>
<td>A III</td>
<td>£1,500 to £1,725</td>
</tr>
<tr>
<td>A II*</td>
<td>£1,500 to £1,725</td>
</tr>
<tr>
<td>A I*</td>
<td>£2,000</td>
</tr>
</tbody>
</table>

The rates for women are lower at all points.

**NOTE:** Salaries of Grade A II officers which are below £1,500 attract a pay addition of approximately 10% on the first £500, 5% on the second £500 and 2% on the third £500 of salary; on salaries of £1,500 to £2,000 there is at present an addition of £100.
Above the A.I level there are a few higher directing posts, with salaries from £2,500 to £3,250 (London rates) or £2,400 to £3,150 (Cheltenham rates).

There are no hard and fast rules about promotion to these grades. All promotion is on merit to a vacancy; the numbers are so calculated that an A.IV may expect to be promoted to the rank of A.III within about 7 years, i.e. at about age 30. An exceptionally able A.IV may be promoted to A.III after about 5 years and to A.II at about age 35 to 37.

13. Probation

Successful candidates will have to serve a probationary period of two years and will not be retained if their probationary period is not satisfactory. Those who are already established civil servants will be on trial for the same period and are liable to be reverted if their trial service is not satisfactory.

14. Hours

The Department is at present working a 45½ hour week (including meal intervals). Candidates on entry to the Departmental"A" Class will not normally be required to work longer than these hours, but attendance of members of this class is governed more by the requirements of the work than by the standard week. Members of the "A" Class whose remuneration (including Pay Addition) does not exceed £1,435 (men) or £1,255 (women) are at present eligible for an extra duty allowance if they regularly work 45½ hours a week.

15. Leave

The annual leave allowed to members of the Government Communications Headquarters Departmental "A" Class is 36 working days in addition to the usual public holidays.

Sick leave on full pay less any National Insurance benefit received is allowed up to a maximum of six months in any period of twelve months, and thereafter for a further period on half pay, subject to a deduction of National Insurance benefit in certain cases.

16. Superannuation

All candidates appointed from this competition are eligible for superannuation benefits under the Superannuation Acts which normally provide a pension and lump sum gratuity calculated on the number of years' service and the average salary over the three years before retirement. No contributions are required to secure these benefits, but there is also a contributory pension scheme for widows and children. Women who retire on marriage after not less than six years' qualifying service will be eligible for a marriage gratuity.

17. Liability to transfer

Candidates appointed to Government Communications Headquarters as a result of this competition are liable to postings to any part of the United Kingdom or on tours of service abroad in accordance with the requirements of the department. In addition to certain removal expenses, lump sums ranging from £25 to £90 are paid upon permanent transfer as compensation for disturbance.

CIVIL SERVICE COMMISSION,

March, 1954.
CIVIL SERVICE COMMISSION

RECRUITMENT TO THE "B" CLASS IN
GOVERNMENT COMMUNICATIONS HEADQUARTERS
(A DEPARTMENT OF THE FOREIGN OFFICE)

The work of Government Communications Headquarters covers most of the activities of a medium-sized Government Department. The duties of the "B" Class in the Department demand capacity both for individual work of a research nature and for the direction of teams engaged on such work. Mathematical, scientific and linguistic (including classical) training are suitable for the duties of the class.

Government Communications Headquarters is at Cheltenham, but the staff are also liable to serve anywhere in the United Kingdom or if necessary overseas (see paragraph 17).

Three or four posts in the B.IV grade are usually filled each year by interviews from among University students of first or second class honours standard. Further information is given below.

CONTENTS:  I CONDITIONS OF ELIGIBILITY
          II THE COMPETITION
          III CONDITIONS OF APPOINTMENT
          IV PAY, PROSPECTS AND CONDITIONS OF SERVICE.

I. CONDITIONS OF ELIGIBILITY

1. The Competition is open to both men and women.

2. Age

Candidates are expected to be aged 21 - 27 (both inclusive), but allowance will be made for service in H.M. Forces.

3. Education

Candidates must have, or obtain in the year in which they apply, a first or second class honours degree.

4. Nationality

(1) Every candidate must

(a) be a natural-born British subject; and

(b) have been born within the United Kingdom or within one of the self-governing Dominions of parents both of whom were also born within the United Kingdom or within one of the self-governing Dominions.

(2) No departure from this rule will be made without the special permission of the Secretary of State for Foreign Affairs, and then only in exceptional cases and in favour of candidates who are British subjects and who also satisfy one of the following conditions:-

(a) If natural-born British subjects, they must either

(i) have at least one parent who is, or was at death, a British subject; or

(ii) have resided in Her Majesty's dominions and/or been employed elsewhere in the service of the Crown for at least five years out of the last eight years preceding the date of their appointment.

(b) If naturalised British subjects, they must have resided in Her Majesty's dominions and/or been employed elsewhere in the service of the Crown for at least five years out of the last eight years preceding the date of their appointment.
If not qualified under (a) or (b) of this sub-paragraph they must satisfy the Commissioners that they are so closely connected with Her Majesty's dominions either by ancestry, upbringing, or residence, or by reason of National Service, that an exception may properly be made in their favour.

II. THE COMPETITION

5. Application

An application form is enclosed. When completed it should be sent to the address given on the form to arrive not later than 15th May 1954.

6. Method of Selection

Selection will be by interview. Candidates will first be interviewed by representatives of the Department. Those candidates who seem most suitable, from their records and reports of these interviews, will then be summoned to a Selection Board of the Civil Service Commission in London; this Board will probably sit in June or July and will recommend for the vacancies those candidates who appear to be best fitted for the appointments.

If you are summoned to interview you must yourself bear travelling expenses within the United Kingdom up to 7s. 6d. but if you have to spend more than 7s. 6d. on travel by bus or third class rail, from your normal place of residence (or from the place of landing in the United Kingdom in the case of candidates from overseas) to the place of interview, the whole amount will be refunded.

Expenses incurred in travel to this country from abroad cannot be paid by the Civil Service Commission. If you are serving in H.M. Forces you should consult the appropriate Service authority about leave of absence to attend the interview and, if serving overseas, about travelling expenses to the place of landing in the United Kingdom.

Subsistence allowance cannot be paid.

III. CONDITIONS OF APPOINTMENT

7. Certification

Before the selected candidates can be appointed the Civil Service Commissioners must issue their certificate of qualification, which is given when the Commissioners have satisfied themselves about the candidates' age, nationality, health and character; and after the fee of £2 10s. has been paid.

8. Candidates trained as teachers

Candidates who have been trained as teachers and upon whose training public money has been spent cannot be appointed until the consent of the appropriate central education authority (e.g., the Ministry of Education, the Scottish Education Department, the Ministry of Education for Northern Ireland) has been notified to the Commissioners.

9. Canvassing

Any attempt on the part of candidates to enlist support for their applications through Members of Parliament or other influential persons, except as referees to be named by them in their application forms, will disqualify them for appointment.

10. Security

Candidates for Civil Service appointments are reminded that the Government have decided that no-one may be employed in the Civil Service in connection with work the nature of which is vital to the security of the State if he is believed to be either

(i) a member of the Communist Party or of a Fascist organisation; or

(ii) associated with either the Communist Party or a Fascist organisation in such a way as to raise legitimate doubts about his reliability.
The work of the Department of the Foreign Office known as Government Communications Headquarters is wide in scope, complex and varied. It covers most aspects of the activity of a medium-sized Government Department, including committee work and contact with other Government Departments. While the duties of the "W" Class require no specialised qualifications, members of the Class, who serve in a number of branches of the Department during their cadet period, are expected to become experts in particular aspects of the work. After their cadet period they are expected to take part in the making of policy and to be responsible for the organisation and direction of the work.

The staff of G.C.H.Q. are mostly employed at one office in the United Kingdom in the Cheltenham area. The staff are liable to serve overseas (see paragraph 17 below).

Two or three posts in the "A" Class are usually filled each year by interview from among University students of first or second class honours standard. The final selection will be made probably in June. Further information is given below.

CONTENTS:  I. CONDITIONS OF ELIGIBILITY
II. THE COMPETITION
III. CONDITIONS OF APPOINTMENT
IV. PAY, PROSPECTS AND CONDITIONS OF SERVICE

I CONDITIONS OF ELIGIBILITY

1. The Competition is open to both men and women.

2. Age

Candidates are expected to be aged 21-25 (both inclusive), but allowance will be made for service in H.M. Forces.

3. Education

Candidates must have, or obtain in the year in which they apply, a first or second class honours degree.

4. Nationality

(a) Every candidate must

(b) have been born within the United Kingdom or within one of the self-governing Dominions of parents both of whom were also born within the United Kingdom or within one of the self-governing Dominions.

(2) No departure from this rule will be made without the special permission of the Secretary of State for Foreign Affairs, and then only in exceptional cases and in favour of candidates who are British subjects and who also satisfy one of the following conditions:

(a) If natural-born British subjects, they must either

(i) have at least one parent who is, or was at death, a British subject; or

(ii) have resided in Her Majesty's dominions and/or been employed elsewhere in the service of the Crown for at least five years out of the last eight years preceding the date of their appointment.
(b) If naturalised British subjects, they must have resided in Her Majesty's dominions and/or been employed elsewhere in the service of the Crown for at least five years out of the last eight years preceding the date of their appointment.

(c) If not qualified under (a) or (b) of this sub-paragraph they must satisfy the Commissioners that they are so closely connected with Her Majesty's dominions either by ancestry, upbringing, or residence, or by reason of national service, that an exception may properly be made in their favour.

II THE COMPETITION

5. Application

An Application Form is enclosed. When completed it should be sent to the address given on the form to arrive not later than 30th April, 1954.

6. Method of Selection

Selection will be by interview. Candidates will first have an informal preliminary interview at their Universities, and if recommended by the interviewer they will then be interviewed by representatives of the Department. Those candidates who seem most suitable, from their records and the reports of these interviewers, will then be summoned to a Selection Board of the Civil Service Commissioners in London; this Board will recommend for the vacancy the candidate who appears to be best fitted for appointment. The Selection Board will probably sit in June.

Travelling expenses of less than 7/6d. are not refundable; but if you spend more than 7/6d. in travelling to interviews, by bus or third class rail in the United Kingdom from your normal place of study or residence, the whole amount will be refunded. The Commissioners cannot pay subsistence allowance.

III CONDITIONS OF APPOINTMENT

7. Certification

Before the selected candidates can be appointed the Civil Service Commissioners must issue their certificate of qualification, which is given when the Commissioners have satisfied themselves about the candidates' age, nationality, health, and character; and after the fee of £4 has been paid.

8. Candidates trained as teachers

Candidates who have been trained as teachers and upon whose training public money has been spent cannot be appointed until the consent of the appropriate central education authority (e.g., the Ministry of Education, the Scottish Education Department, the Ministry of Education for Northern Ireland) has been notified to the Commissioners.

9. Canvassing

Any attempt on the part of candidates to enlist support for their applications through Members of Parliament or other influential persons, except as referees to be named by them in their Application Forms, will disqualify them for appointment.

10. Security

Candidates for Civil Service appointments are reminded that the Government have decided that no-one may be employed in the Civil Service in connection with work the nature of which is vital to the security of the State if he is believed to be either

(1) a member of the Communist Party or of a Fascist organisation; or

(2) associated with either the Communist Party or a Fascist organisation in such a way as to raise legitimate doubts about his reliability.
The Commissioners are not, as such, concerned with security enquiries, which are the responsibility of the Minister in charge of the Department concerned, and they cannot enter into correspondence with candidates on this matter or answer any questions.

IV. PAY, PROSPECTS AND CONDITIONS OF SERVICE

11. Salary

Successful candidates will be appointed to the B,IV grade.

I. For men appointed to Cheltenham - where most officers of this grade will be employed - working the standard week of 45½ hours, the total remuneration on appointment is about £499 if they have completed two years National Service and about £450 if they have not undertaken National Service. For women it is about £450.

These amounts are made up as follows:

Remuneration

Salary (see (i)) £437 (or £485 after 2 years National Service)

Extra duty allowance £13 (or £14 after 2 years National Service)

(see (ii)) £450 £499

(i) Salary

(a) The scale of salary in London is:-

Men: £460 rising by one annual increment of £25 to £485, then by £30 to £565 and then by £35 to £800.

Women: £460 rising by one annual increment of £20 to £480, then by £25 to £675.

(b) Successful candidates who have done full time service in H.M. Forces under the National Service Acts (including voluntary service in so far as it has been undertaken in lieu of compulsory National Service) will have their starting pay on appointment increased by one increment for each complete year of such service up to a maximum of two. Candidates with less than 2 years' service will receive incremental credit for any fraction of a year.

(c) The London salary calculated under (a) and (b) above is subject to deduction for officers who are serving outside London. The deduction ranges from £11 to £40 according to salary and location and in Cheltenham is £23 at the minimum of the scale rising to £40 (men) and £30 (women) at its maximum.

(ii) Extra duty allowance

An extra duty allowance is payable (see under "Hours").

In Cheltenham this amounts to 3% of the salary.

II. Successful candidates who are already serving in the Civil Service will not carry their existing salary with them but will have their starting salary assessed as above.

12. Prospects

The career open to a new entrant is good.

Above the B,IV grade the grades and salaries in the Departmental "B" Class are as follows:-
Above this grade there are a few higher posts at a salary for men of £1,500 to £1,750 if in London (or £1,420 to £1,650 in Cheltenham); corresponding rates for women are £1,340 to £1,580 in London (or £1,260 to £1,480 in Cheltenham).

There are no hard and fast rules about promotion to these grades. All promotion is on merit to a vacancy. The numbers are so calculated that a B.IV may expect to be promoted to the rank of B.III within about seven years and every normally successful officer of the class should reach the rank of B.II.

For the senior grades of the class competition is more severe.

In addition to the "B" Class there is a Departmental "A" Class with a career approximating to the Home Civil Service Administrative Class. There is opportunity for cross-promotion from the "B" Class to the "A" Class.

13. Probation

Successful candidates will have to serve a probationary period of two years and will not be retained if their probationary period is not satisfactory. Those who are already established civil servants will be on trial for the same period and are liable to be reverted if their trial service is not satisfactory.

14. Hours

The Department is at present working a 45 2/3 hour week (including meal intervals). Candidates on entry to the Departmental "B" Class will not normally be required to work longer than these hours, but attendance of members of this class is governed more by the requirements of the work than by the standard week. Members of the "B" Class whose remuneration does not exceed £1,435 (men) or £1,255 (women) are at present eligible for an extra duty allowance if they regularly work 45 2/3 hours a week.

15. Leave

The annual leave allowed to members of the Government Communications Headquarters Departmental "B" Class is 36 working days in addition to the usual public holidays.

Sick leave on full pay less any National Insurance benefit received is allowed up to a maximum of six months in any period of twelve months, and thereafter for a further period on half pay, subject to a deduction of National Insurance benefit in certain cases.

16. Superannuation

All candidates appointed from this competition are eligible for superannuation benefits under the Superannuation Acts which normally provide a pension and lump sum gratuity calculated on the number of years' service and the average salary over the three years before retirement. No contributions are required to secure these benefits.

NOTE: The basic salary quoted for B.I and for the higher posts in the Class is increased by approximately 10% on the first £500, 5% on the second £500 and 2% on the third £500 of salary, up to £1,500; and from £1,500 to £2,000 there is an addition of £100.

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benefits, but there is also a contributory pension scheme for widows and children. Women who retire on marriage after not less than six years' qualifying service will be eligible for a marriage gratuity.

17. Liability to transfer

Candidates appointed to Government Communications Headquarters as a result of this competition are liable to postings to any part of the United Kingdom or on tours of service abroad in accordance with the requirements of the department. In addition to certain removal expenses, lump sums ranging from £25 to £90 are paid upon permanent transfer as compensation for disturbance.

CIVIL SERVICE COMMISSION,

April, 1954.