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By SMITH,S.G.

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# LONG-TERM OPTIMUM AVERAGING PERIODS FOR TEMPERATURES IN THE UNITED KINGDOM

by

S G Smith



Climatological Services Branch (Met O 3)
Meteorological Office
London Road
Bracknell,
BERKSHIRE

SUMMARY

An index has been formulated to assist in the determination of the long term optimum averaging period for mean maximum and mean minimum temperatures in the United Kingdom. The results are based on 95 years of data at five well separated stations. The optimum length has been found to depend on a number of factors and reasons for these variations have been investigated.

# CONTENTS

## 1. Introduction

The World Meteorological Organisation (1976) currently recommend that a 30 year normal, or averaging period (AP), be used for climatological purposes. This study investigates whether the 30 year period is the best AP to use for temperatures in the United Kingdom, at the same time obtaining an indication of likely errors resulting from the use of AP's of any length between 5 and 50 years.

Previous workers on this subject include Enger (1959), Craddock and Grimmer (1960) and Court (1967-68). Enger studied daily and monthly mean temperatures for stations in the United States and Craddock and Grimmer analysed annual mean temperatures for selected stations in the Northern Hemisphere. Both papers suggested that an AP somewhat less than 30 years may be preferable, particularly where records are not homogeneous. Court investigated averaging periods for temperature, sunshine and precipitation for several stations in the United States and for others over the Northern Hemisphere. He found that, averaged over all elements, stations and months, all AP's between 10 and 40 years long were in general equally suitable.

In the United Kingdom (UK) many stations do not have data in computer accessible form extending back as long as 30 years and for others the records are not homogeneous for this length of time. If the use of AP's less than 30 years gives satisfactory values more stations can be employed to answer climatological enquiries.

## 2. Discussion

### 2.1 The problem

In most applications, AP means are required as an attempt to forecast future conditions. The climate of years comprising the AP is implicitly assumed to be representative of the climate of years in the future. However it is well known that climate varies even on the scale of decades (see for example Lamb (1977)) and hence 30 years may be too long a period from which to extrapolate expected conditions. Reducing the length of AP, however, could result in the AP mean having an unacceptably high variability. A detailed description of the issues involved in determining a suitable climatological AP is given in a World Meteorological Organisation technical note (WMO, 1967).

For the present, reference to the optimum averaging period is taken to imply the AP which comes nearest to satisfying the desire to obtain a value representative of future conditions and the desire to maximise the precision of the estimate.

### 2.2 Terminology

The optimum averaging period is dependent on a number of factors and some of the terms representing these factors are defined:

(i) PARAMETER: the observed variable. Means of daily maximum and means of daily minimum temperatures (referred to as maxima and minima) will be considered.

(ii) TIME AVERAGE: the period over which the parameter is averaged. 10-day, monthly, seasonal and annual time averages will be studied.

(iii) FORECAST PERIOD: the number of years in the future over which the AP estimate is required, namely 3, 5, 10 and 20 years for this study. (Note that this term is used in a rather different sense to usual Meteorological Office practice)

## 3. Data

### 3.1 Stations and Means

Only stations with a reasonably continuous temperature record of the order of 100 years were suitable for this study. It was also desirable that the data be as homogeneous as possible. About 10 stations in the UK have observations that satisfy these criteria and whose data were available in a suitable computer compatible format. Of these, five were selected to cover as wide an area of the UK as possible. These five, with the abbreviations used for each in the tables and their grid references are:

Armagh (Arm; IH(23) 878458), Durham (Dur; NZ(45) 267416),

Gordon Castle (Gor; NJ(38) 350595), Oxford (Oxf; SP(42) 509072),

and Plymouth (Ply; Hoe SX(20) 478537 and Mountbatten SX(20) 492529) -

see fig 1 for locations. (The reasons for utilizing data from two sites at Plymouth are given in 3.1.1). These five stations will be referred to as the principal stations.

Each principal station has daily maxima and minima for the period 1882-1976, with the exception of Gordon Castle which closed in July 1975 (reference to the period 1882-1976 will therefore imply 1882 to June 1975 for Gordon Castle). Monthly mean maxima and monthly mean minima were calculated over the period 1882-1976 provided that no more than five daily values and no more than two consecutive daily values were missing in that month. Only the December 1883 maxima and minima at Durham and the October 1956 minima at Gordon Castle were not calculable using these criteria. The missing Durham values were estimated using the method of differences with Sheffield Western Park (SK(43) 339873) and the missing Gordon Castle value by the same method with Forres, 30 km to the west of Gordon Castle (Sheffield and Forres are shown in fig 1).

Seasonal maxima and minima and an annual mean were then derived from the monthly maxima and minima for each station.

Ten-day mean maxima and minima were derived for Oxford from daily values such that three 10-day means were calculated from the first 30 days of each month (except February for which three 9-day means were derived from the first 27 days of that month).

Average temperatures over the five principal stations were then calculated, to provide temperatures representative of the UK as a whole, for monthly maxima and minima, seasonal maxima and minima and the annual means.

Monthly mean Central England temperatures for the period 1723-1976 presented by Manley (1974) and updated since 1973 by Jenkinson were also employed so that results from a long, homogeneous record could be compared with the shorter length records from individual stations which may be subject to local transient effects.

To allow comparison of results for two nearby stations, monthly maxima and minima for Sheffield and Bradford (SE(44) 149352) - shown in fig 1) were also computed from daily values for the period 1908-1976. It was only possible to compare values for 1908-1976 because temperature records for Bradford were not available in a suitable computer compatible format before 1908.

A list of all the stations and means used is given in Table I.

#### 3.1.1 Station characteristics

This section describes, for the principal stations, changes in site or in site characteristics which may have affected the homogeneity of their data.

(i) Armagh

No record of site changes at Armagh exists. However personal communication with Belfast Meteorological Office in 1977 indicates that at that time "action was being taken to cut down vegetation which had grown to excess and was providing shelter to an unacceptable limit".

(ii) Durham

The site was moved by six metres in 1961 but this is unlikely to have affected the homogeneity of the data. However Manley (1941) suggested that monthly maxima and minima at Durham between 1922 and 1933 were too low by amounts ranging from 0.1°F to 0.8°F (0.06°C to 0.44°C).

(iii) Gordon Castle

Records of the site at Gordon Castle are only available since 1908. No changes in site occurred from 1908 until the station closed in 1975. To examine whether the missing values for the end of 1975 and 1976 might have an important effect on results, comparison of results for Oxford and Armagh for the period 1882-1974 were made with results for 1882-1976. Differences were found to be negligible.

(iv) Oxford

The site at Oxford has changed twice during the period 1882-1976 but it has always remained within the confines of the Radcliffe Observatory. However Manley (1974) suggested that the Radcliffe Observatory at Oxford "...since 1935 shows signs of the growing effect of urbanisation and slight changes of site."

(v) Plymouth

The data for Plymouth is a combination of data from two sites: the Hoe between 1882 and 1930 and Mount Batten between 1931 and 1976. No other suitable station was available for SW Britain. Although Plymouth Hoe has submitted temperatures throughout the period 1882-1976, the data since 1930 were not in a computer compatible form and twice since 1930, in 1937 and 1950, inspectors' reports state that the site at the Hoe was "unsatisfactory". Several minor changes of site have occurred at Mount Batten since 1930. Also between November 1946 and July 1948 the station was closed and for this period observations were used from Mount Wise, 1½ km to the west of Plymouth Hoe. The most significant change of site, however, is the change in 1930 from the Hoe, which is in comparatively sheltered surroundings, to Mount Batten, where the instruments are situated in an exposed site on the crest of a hill.

## 3.2 Data characteristics

To try and identify factors affecting the length of optimum averaging period (OAP), four characteristics of the data were studied: variability, features peculiar to each station, irregular climatic fluctuations and oscillations.

### 3.2.1 Variability

If data have a large year-to-year variability then many years are required to provide a stable estimate based on the mean of those years. Therefore data having a high variability would be expected to have a relatively long OAP and vice-versa.

The standard deviations for 10-day maxima and minima (9-day in February) at Oxford, and for monthly and seasonal maxima and minima and for annual means, at the principal stations, are shown in Table II. The variability is seen to decrease with increase in time average length. Minima are less variable than maxima except during some late autumn and winter months. However at Plymouth minima are more variable from October through to April whereas at Gordon Castle minima are less variable throughout the year. For maxima, Oxford has the most variable data with Armagh and Plymouth having the least variable. The relationship between station and variability for minima is more complex.

### 3.2.2 Features peculiar to station

An objective scheme was derived for determining individual years or periods of years for which temperatures from a particular station were anomalously low or high compared to temperatures at the other principal stations. For each station and month and for maxima and minima separately the differences for the temperatures of each year from 1882 to 1976 from the 1882-1976 mean were compared with corresponding differences for the temperatures at the other stations. It was found that, relative to the other stations,

(i) Armagh maxima were warm and minima were cool from 1960 to 1976.

(ii) Durham maxima and minima were cool in the 1920's.

(iii) Gordon Castle maxima and minima were warm in the 1880's.

(iv) Plymouth maxima and minima were warm till 1930 and minima were cool after 1930.

It is not known whether (iii) is due to features of the site. However (i), (ii) and (iv) tend to support the comments made for these stations in 3.1.1.

### 3.2.3 Irregular climatic fluctuations

If marked (irregular) climatic fluctuations exist in the data, temperatures well into the past are not representative of temperatures observed later. Such data would therefore be expected to have a relatively short OAP. The same is true for inhomogeneous data (provided inhomogeneities do not counteract the effects of climatic fluctuations). Work done by Court (1967-68, part 1) using simulated data supports these intuitive arguments.

The existence of significant differences between the means of intervals of years within the 1882-1976 period was deduced from an analysis of variance run on the data. Oxford and Armagh monthly maxima and minima were studied. The 95 year record was divided into five non-overlapping 19 year intervals and the analysis of variance technique was used to determine the percentage probabilities of the differences between means of the five intervals occurring by chance. Results are shown in Table III. The differences between means are most significant in April and October. The results for minima are more significant, in general, than those for maxima while for maxima those at Armagh are more significant than at Oxford.

The cumulative differences from the 1882-1976 mean for selected months at Oxford were plotted to display the presence of climatic fluctuations. Fig 2A shows the results for maxima. Negative gradients represent cool periods and positive gradients warm periods, relative to the 1882-1976 mean. For all months except January a warming begins after 1940. In January a cooling begins after 1940. October displays a marked cool period between 1882 and 1896. The same features are apparent for minima (shown in fig 2B) as for maxima, although April minima are predominantly cool between 1882 and 1920 and for October the warming begins some 20 years later than for maxima.

The effect of climatic fluctuations with regard to AP estimates is shown for April maxima at Oxford in fig. 3. The plot gives differences between forecast period means of 10 years and AP means of 30 years (against the year 1911 is the mean for 1912-1921 minus the mean for 1882-1911 and so on for each year until 1966). For all years between 1912 and 1924 and again between 1952 and 1966 the AP mean overestimates (as indicated by the negative value) the forecast period mean, whereas between 1930 and 1940 the converse is true.

### 3.2.4 Oscillations

The presence of well marked oscillations in the data should result in an OAP close to the period of the oscillations. This was supported by an analysis run on random Normal data superimposed by oscillations of fixed period and amplitude.

Dyer (1976) has analysed Manley's Central England temperatures by months for the period 1659 to 1973. He observed some significant oscillations but the lengths of their periods tended to vary with month of year.

The existence of oscillations in monthly maxima and minima over the period 1882-1976 was tested for by applying a power spectrum analysis available in the Biomedical Computer Programs' statistical package (Dixon, 1974). January, April, July and October maxima and minima were investigated for Oxford and Armagh. The analysis calculated the proportions of variance accounted for by cycles of periods 2 to 100 years, with greater resolution for the shorter periods. No particular cycles overall accounted for significantly high proportions of the total variance and for many months even the largest proportions were not significantly different from random noise (at the 5% level).

An autocorrelation analysis was also performed on data for all months, for Oxford and Armagh, to investigate the existence of significant lags. Significant lags were obtained but for no more than two months out of 12 for each station and some significant lags would be expected to occur purely by chance.

It is concluded that if cycles do exist they are either too weak to be important or else are only significant for very limited periods of the year.

## 4. Methods for determining the "best" estimate

A number of methods can be employed for estimating future temperatures based on past observations. Similarly a variety of methods exist for evaluating the performance of each estimate. The choice of either type of method could depend on the relative ease of computation, the data available and the requirements of the estimate. Section 4.1 describes methods for deriving an estimate and section 4.2 investigates methods for evaluating the performance of the estimate.

### 4.1 Methods for obtaining an estimate

#### (i) Averaging period mean

The estimate is the unweighted arithmetic mean of a given number of years, namely the length of the AP. This is a particularly simple form of a regression equation in which each coefficient equals the reciprocal of the length of the AP. The methods described under (ii) and (iii) examine whether more complicated forms of regression equation are more appropriate for forecasting future temperatures based on temperatures observed in previous years.

#### (ii) Unspecified regression equation

One might expect that if an estimate is required for, say, the period 1971-1980 then more weight should be given to temperatures recorded in the 1960's than in the 1940's. To study this, linear regression and stepwise regression routines available in the Biomedical Computer Programs' statistical package (Dixon, 1975) were applied to Oxford and Armagh monthly maxima and minima with forecast periods of 3 and 10 years. The number of regression variables in the regression equation, corresponding to the number of years comprising the AP, ranged from 10 to 30 years. The values for the coefficients were found to vary considerably between months and between stations and depended on the number of regression variables.

#### (iii) Exponential Smoothing

Exponential smoothing gives a particular form of regression equation in which weights applied to different years decrease exponentially with time into the past. The method has been employed by Craddock and Grimmer (1960) and Craddock (1967) to provide estimates of mean temperatures, and by Craddock (1976) to provide estimates of mean rainfall. The first two articles indicated that, in general, estimates produced by exponential smoothing techniques were no more accurate than simple arithmetic means. The third article did not compare the performance of estimates based on exponential smoothing with arithmetic means.

The results of exponential smoothing were compared with those of arithmetic means for Oxford and Armagh monthly maxima and minima (details omitted). It was found that only in a small minority of cases did the most accurate estimate based on exponential smoothing improve on the most accurate estimate derived from arithmetic means.

The conclusion from (ii) and (iii) is that there is little if any evidence to suggest that applying a regression equation (including exponential smoothing) would improve the accuracy of the estimates given by the simple unweighted mean of the OAP.

(iv) Median

For the purposes of this type of study, using the median, or central, value of the AP observations as the estimate has the advantage that it requires little computation and is unaffected by extremes. Its performance in estimating future temperature and precipitation values has been compared with that of the mean by Court (1967-68). He concluded that "prediction based on the median had slightly less error than that using the mean". To keep the present study within reasonable limits, however, it has been necessary to restrict analysis to mean estimates only.

## 4.2 Verification statistics

### (i) Root-mean-square (rms) errors

This method was used by Enger, and Craddock and Grimmer. Let m estimates of temperature be denoted by $C_1$, $C_2$, ..., $C_m$ and corresponding observed values by $O_1$, $O_2$, ... $O_m$.

Let $e_1$, $e_2$, ...$e_m$ be the differences of these two quantities i.e. $e_j = O_j - C_j$. Then the rms error, R, of the estimates is given by

$$R = \sqrt{\frac{1}{m}\sum_{j=1}^{m}(O_j - C_j)^2} = \sqrt{\frac{1}{m}\sum e_j^2}$$

This method of evaluation does not distinguish between random errors of estimation and systematic errors. The latter could occur if there is a linear trend through the length of record - the estimates would then consistently under - or over-estimate observed values, giving a non-zero mean error ($\bar{e}_j$ significantly different from zero). The mean error is in fact above 0.5°C for some cases considered in this study.

### (ii) Standard errors

In the notation of (i) the standard error, S, of the differences between estimated and observed values is given by

$$S = \sqrt{\left\{\frac{1}{m-1}\left(\sum_{j=1}^{m} e_j^2 - \frac{\left(\sum_{j=1}^{m} e_j\right)^2}{m}\right)\right\}}$$

S is a measure of the variability of the differences. Calculation of S and $\bar{e}_j$ using estimates derived from AP means of 5 to 50 years and observed values derived from forecast period means of 3, 5, 10 and 20 years showed that a small value of S was not necessarily associated with a small value of $\bar{e}_j$. A statistic which incorporates both the standard error and mean error would therefore be more satisfactory.

### (iii) Successive large differences of the same sign

Large differences of the same sign between estimated and observed values in consecutive years may have serious consequences for those involved in weather sensitive concerns. A requirement for an estimate of future temperatures could be that such occurrences are minimised i.e. that the number of occasions when $e_j$ and $e_{j+1}$ (where j = 1 to m - 1) are both greater than t°C, or both less than -t°C, is minimised.

Other methods of verification, such as the mean absolute error, also exist but are not developed here.

## 5. Methods of analysis

Section 4.1 suggested that arithmetic means are capable of providing satisfactory estimates of future temperatures compared to other, more complicated, techniques. A method for evaluating the performance of the different AP's is therefore required, taking into account points raised in 4.2.

### 5.1 Formulation of index

For each set of temperatures of length n, the mean differences and standard error of the differences between the AP and forecast period means were calculated. The AP of length N ranged from 5 to 50 years and the forecast period T equalled 3, 5, 10 and 20 years in turn.

The first difference, or error, equalled the mean of the first N years of the record subtracted from the mean of the next T years. The second difference equalled the mean of the second to the (N+1)th year of the record subtracted from the mean of the (N+2)th to the (N+T+1)th year, and so on through the length of record. This gives a total of n-N-T+1 differences for which the mean and standard error are calculated (with n = 95 this gives the total ranging from 88 when N=5 and T=3 to 26 when N=50 and T=20).

The mean M and standard error S of the differences are given by

$$M = \frac{1}{m}\sum_{j=1}^{m}\left(\bar{X}_{j,T} - \bar{X}_{j,N}\right)$$

$$S = \sqrt{\left\{\frac{1}{m-1}\left(\sum_{j=1}^{m}\left(\bar{X}_{j,T} - \bar{X}_{j,N}\right)^2 - \frac{\left[\sum_{j=1}^{m}\left(\bar{X}_{j,T} - \bar{X}_{j,N}\right)\right]^2}{m}\right)\right\}}$$

where m = number of differences = n - N - T + 1

$\bar{X}_{j,T}$ denotes the jth forecast period mean of length T years

$\bar{X}_{j,N}$ denotes the jth AP mean of length N years.

For an optimum averaging period (OAP) it is desirable that both M and S be a minimum.

The following index, I, which is a function of M and S, was formulated to assist in the determination of the OAP:

$$I = \left[\left(1 - \Phi\left(\frac{t-M}{S}\right)\right) + \Phi\left(\frac{-t-M}{S}\right)\right] \times 100$$

where t is a constant and $\Phi$ denotes the normal probability function. I is the expected number of differences (expressed as a percentage of the total) between forecast mean and AP mean of greater than t°C. It corresponds to the probability that differences are greater than t°C plus the probability that differences are less than -t°C. This interpretation is valid only if differences are approximately normally distributed. To test this, values of skewness and kurtosis for the differences for monthly maxima and minima were calculated. The values obtained were within the 95% limits under the hypothesis that the distribution of differences formed a normal distribution.

It was found that for monthly means t = 0.75°C gave approximately the greatest range of I over all AP's. Since 10-day means are more variable than monthly means, t was set to 1.0°C for this time average. It was set to 0.5°C for seasonal means and to 0.25°C for annual means since these are less variable than monthly means. Varying the value of t does not alter the relative performance of each AP.

### 5.2 Interpretation of results

The observed percentage of differences for which the forecast period and AP means differ by more than $t^{o}C$ was calculated and compared with corresponding values of I. The differences between the observed percentages and I were generally less than 10%. The value of I is therefore a satisfactory indicator of the accuracy of AP means. Also its value depends on two statistics, namely the mean and standard error of the differences, which are themselves important.

As an example of the interpretation of I, for monthly means (when $t = 0.75^{o}C$), I = 30 implies that (subject to sampling error) 30% of the differences between forecast period and AP means are greater than $0.75^{o}C$. The interpretation for other time averages is the same except that the value of t is changed.

### 5.3 Comparison with other methods

It was found that the AP giving the least value of I is generally within 5 years of the AP giving the least standard error of differences and the AP giving the least rms differences. The greatest differences in AP's between the methods occur when the mean difference rises steadily above about $0.1^{o}C$ with increase in AP; in these cases the AP giving the least value of I is shorter than the AP giving the least value of the other statistics.

In section 4.2 it was suggested that it is sometimes desirable to minimise the occurrence of successive large differences of the same sign between estimated and observed temperatures. To investigate the usefulness of I in satisfying this criterion, means of AP's ranging from 5 to 50 years were compared with forecast period means of 10 years for Oxford monthly maxima and minima and the percentage number of successive differences exceeding $0.75^{o}C$ with the same sign were calculated. The AP's giving the least percentages were generally within 2-3 years of the AP giving the least value of I. Hence the suitability of AP's using I as the criterion closely matches their suitability under this "successive large errors" criterion.

### 5.4 Properties of the index

Series of simulated temperatures using different models were generated so that properties of the index could be investigated on a large quantity of data. Two types of model were employed:

i. An autoregressive model of order one i.e. $x_t = \phi x_{t-1} + \epsilon_t$ where $x_{t-1}, x_t$ are successive terms of the series, $\phi$ is a parameter and $\epsilon_t$ are, in this case, random normal deviates with mean zero and standard deviation one.

ii. A moving average model of order one i.e. $x_t = \epsilon_t - \theta \epsilon_{t-1}$ where $\theta$ is a parameter and the other terms are as defined in (i).

By varying the values of $\phi$ and $\theta$, series having different characteristics were generated. For each value of $\phi$ and $\theta$, 100 series of 95 terms were produced and the mean and standard deviation of I over these 100 series were calculated for each AP of lengths 5 to 50 years. It was found that

a. In all cases when the lower and upper bounds of possible values of I did not limit the range of I observed, the standard deviation of I was about two to three times as large for the longest AP's compared to the shortest.

b. The greater the persistence between successive terms of the series (corresponding to positive $\phi$ in the autoregressive model) the larger the value of the index and the better the performance of the short AP's in relation to the longer AP's.

c. The greater the degree of anti-persistence (corresponding to negative $\phi$ or positive $\theta$) the smaller the value of the index and the worse the performance of the short AP's compared to the longer AP's.

The actual temperature series used in this study have different persistence characteristics and so these findings can assist in the interpretation of variation of I with AP for the real data.

## 6. Results

### 6.1 Definition of optimum averaging period (OAP)

Fig 4 shows the variation of I with AP for Oxford winter and summer maxima. Frequently, as in these two cases, there is more than one local minimum or there are several consecutive AP's giving almost the same minimum value. In these cases presenting a single AP as the "optimum" could be misleading. Subsequent reference to the OAP will refer to the central value of AP's for which I is within 5% of the minimum value of I for AP's between 5 and 50 years.

### 6.2 Comparison of results for Sheffield and Bradford

To ascertain whether observed differences in OAP between the principal stations are not simply due to random variations, a comparison was made between values of I for monthly maxima and minima for Sheffield and Bradford. These stations are only 50 km apart, both are on the Eastern side of the Pennines and there is only 3 metres difference in altitude between the two sites.

Results for January and July maxima and minima are shown in Figs 5A and 5B. The shapes of the curves for the two stations are generally similar and their OAP's are approximately the same (although there are AP's for which the actual magnitude of I is different). This suggests that the effect of random variation will only produce small changes in OAP.

### 6.3 Summary of results

Table IV presents the value of I against every fifth AP for 10-day maxima and minima at Oxford. Tables V(a) to V(q) give corresponding values for monthly, seasonal and annual means for all principal stations and the UK temperature series. Results are given for forecast periods of 3, 5, 10 and 20 years. Figs 6A and 6B show the variation of I with AP for selected months at Oxford, forecast period 10 years. Figs 7A and 7B display, for every fifth AP, the differences between I and the minimum value of I for AP's between 5 and 50 years, for Oxford monthly maxima and minima, forecast period 10 years. AP's frequently giving values less than 5 can be considered as suitable OAP's whereas those frequently giving values greater than 15 are generally to be avoided. (The values of 5 and 15 selected are arbitrary).

Salient features of these tables and figures will be described or alluded to under the following headings (on which the OAP has been considered to depend):

(i) Time of year

(ii) Time average

(iii) Parameter

(iv) Forecast period

(v) Station

(vi) Period of data

The accuracy of the AP estimates (as measured by the magnitude of I) and the OAP itself will be considered under these headings.

(i) Time of year

Both the OAP and its accuracy vary considerably through the year. Table V reveals that Autumn generally gives the most accurate estimates, except for long AP's in October where the accuracy is poor. Winter periods give the least accurate estimates.

Fig 7A shows how the OAP varies with month at Oxford for monthly maxima. An AP of length 15-20 years is suitable as an OAP in January, February, April and from August to October but is unsatisfactory in March, May and December, for which longer AP's are required. Differences between months are also evident for minima displayed in fig 7B. In terms of seasons (Table V), Spring and Autumn give the shortest OAP's, followed by Winter, with the longest OAP's occurring in Summer.

The relatively short OAP's in Spring and Autumn are a consequence of the climatic fluctuations particularly evident in April and October, together with the relatively low variability at these times of the year (see section 3). The poor accuracy for long AP's in October is also a result of these climatic fluctuations, whereas the poor accuracy evident for Winter periods is due to the high variability of the temperatures at that time of the year.

(ii) Time average

Direct comparison of the accuracy between time averages is not possible owing to the different values of t for each time average.

The longest OAP's tend to occur with 10-day means. Monthly means and seasonal means give OAP's about 10 years and about 20 years shorter than 10-day means, respectively. For all stations except Oxford the shortest OAP's occur with annual means, some 25 years shorter than 10-day means.

The decrease in OAP with increase in time average is associated with the corresponding decrease in variability of the data.

(iii) Parameter

Minima tend to give more accurate estimates than maxima in the Spring and Summer periods of the year whereas in Autumn and Winter the reverse is true.

For OAP's, minima give values about 5 years shorter than maxima, though exceptions such as September minima giving values about 20 years shorter than maxima, do occur.

The result for the accuracy of the estimates agrees with the finding that minima are generally less variable than maxima throughout Spring and Summer. Climatic fluctuations are more evident for minima than maxima and this is the likely cause of the shorter OAP for minima.

(iv) Forecast period

The accuracy of the AP estimate improves as the forecast period increases (forecast period as defined in 2.2), except for a few occasions in Spring and Autumn and also for the annual mean. The exceptions occur because the increased effect of climatic fluctuations in the data counteracts the effect of reduced variability.

The range of OAP is greatest for the short forecast periods (owing to the high variability of short forecast period means). For the majority of cases the OAP increases with increase in forecast period although where well developed fluctuations exist, as in April and October, the OAP decreases as forecast period increases.

(v) Station

No station overall gives less accurate or more accurate estimates than the other stations. However for particular cases the accuracy differs considerably from station to station e.g. for October minima (see table V (j)), forecast period 20 years and AP 50 years, I is very large ( > 90) at Gordon Castle, Durham and Armagh but relatively small ( < 35) at Oxford and Plymouth.

The OAP, in most cases, does not vary by more than 10 years from station to station. A major exception to this occurs for maximum temperatures during the months of April and October and the seasons of Spring and Autumn, for which the OAP at Plymouth is about 20 years longer than at the other stations. This is probably a result of the site change at Plymouth in 1930 counteracting the effect of climatic fluctuations. Evidence that this site change has introduced some degree of inhomogeneity into the Plymouth data is revealed by plots of cumulative differences from 1882-1976 means for April and October maxima. The plots for April maxima are shown in fig 8A. At Plymouth the temperatures are relatively uniform between 1882 and 1976 whereas at the other stations the period before 1940 is cooler (corresponding to a negative gradient of the curve) than the period after 1940 (where the gradient is positive). Fig 8B shows a similar result for October maxima, though in this case a cooling is more marked in the 1890's.

There is a tendency for the OAP at Gordon Castle and Durham to be about five years shorter, on average, than at Oxford and Plymouth. This difference is most evident for seasonal minima; it may be due to climatic fluctuations being more prominent in the north than further south.

The results for monthly Central England temperatures over the period 1882-1976 (fig 9A ) are similar to the results for monthly maxima and minima at individual stations. This suggests that large scale climatic effects have been more important than local effects in influencing the length of OAP.

(vi) Period of data

The above results relate to data from the period 1882-1976. The validity of these results for a longer length of record and for different periods was examined using the time series of Central England temperatures.

Values of I were firstly derived for monthly mean temperatures over the period 1723-1976. For this series, investigation of AP's of length 5 to 100 years was possible owing to the greater number of years of data. The results are shown in fig 9B as differences from the minimum value of I over this extended AP range. It is seen that the OAP could reasonably be taken as any length of AP greater than about 35 years. For January and October AP's longer than 70 years are unsuitable but in some cases, such as the three summer months, AP's as long as 100 years are perfectly adequate. This tendency for longer OAP's suggests that the temperature fluctuations observed in the 1882-1976 period are in general of short duration compared to the length of the 1723-1976 period.

Values of I were next derived for monthly means over three 84 year periods viz (i) 1725-1808, (ii) 1809-1892, and (iii) 1893-1976, and results compared. Those for January and July are shown in figs 10A and 10B respectively. For both months there is a reasonable similarity for the values of I between the different periods. The results for October are displayed in fig 10C as a contrast to those of January and July. In this case there are considerable differences between periods. The same is also true for April (not shown).

To obtain some indication of the suitability of different AP's based on results from all three periods the following procedure was adopted: for each month AP's were classified according to the differences between I and the minimum for AP's between 5 and 40 years (40 years was chosen as the upper limit because longer AP's are of lesser practical importance and where marked minima occur at 50 years results for other AP's are distorted if 50 years is the upper limit). The classifications were

i. differences all less than 5 (for the three periods)

ii. one or two of the three differences greater than 10

iii. all three differences greater than 10.

Fig 11 shows the results of this analysis. For April and October, where there were substantial differences between periods, no AP falls into class (i). There are considerable differences between months but AP's less than 10 years are unsatisfactory for all times of the year. December, January, August and September are associated with the shortest suitable AP's. The only AP's which do not fall into either of the classes (ii) or (iii) are of length 28-33 years, for which about one third of the months fall into category (i). This suggests an AP of about 30 years is the most suitable agreeing with the overall conclusions for monthly temperatures between 1882 and 1976.

The results for 1882-1976 are more likely to be valid for temperatures in succeeding years than the results for earlier periods (assuming no marked cyclic variation of temperature of the appropriate order). It is to be expected, however, that at some time in the future, results from this 1882-1976 period will need to be updated due to the (as yet unknown) climatic fluctuations occurring after 1976.

## 7. Conclusion

An index has been formulated which assists determination of the optimum averaging period (OAP) and allows quantitative assessment of the suitability of any length of averaging period. It has been applied to mean maximum and mean minimum temperatures at five widely scattered stations in the United Kingdom.

It has been found that the OAP varies considerably with the time of year and with time average. It varies to a lesser extent with forecast period, with station and between maxima and minima. Analysis of the Central England monthly temperature series also shows that the OAP is affected to some extent by the period of data and the length of data used. Reasons for the variations have been sought and it has been deduced that the variability of the data and magnitude of climatic fluctuations in the data are important factors.

For the 1882-1976 period at individual stations, the longest OAP's (greater than 45 years) occur with 10-day mean maxima in Summer, while the shortest, about 15 years, occur with annual means and Spring and Autumn seasonal minima. Table VI summarises these results according to time average and parameter. Variations with time of year, with station and with forecast period also occur but these variations are not as consistent (in the case of time of year) or not as great (in the case of station and forecast period) to warrant further classification. For convenience single values are given but a minimum averaging period about one third shorter than that specified is generally acceptable.

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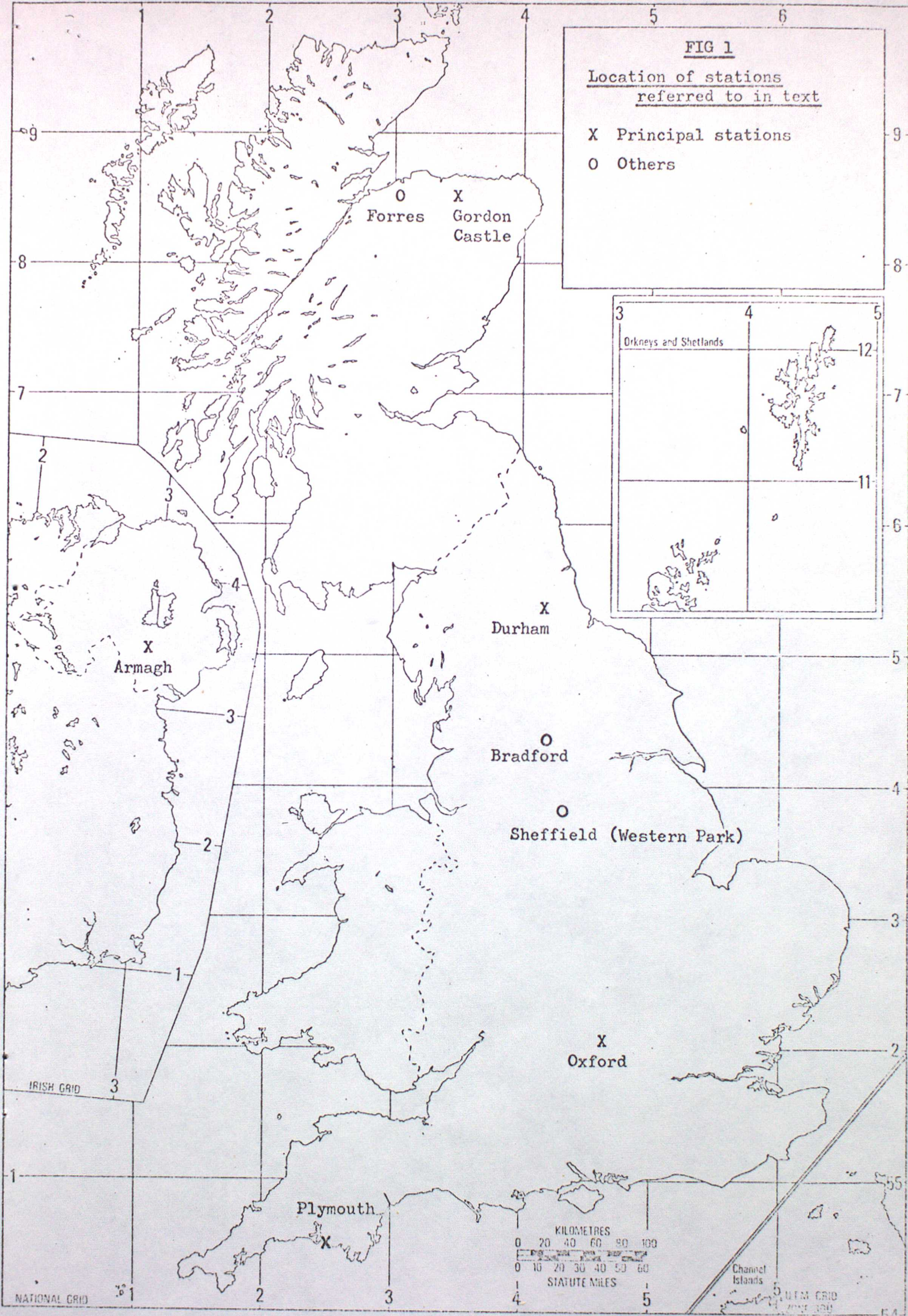



FIG 1

Location of stations referred to in text

<u>Fig 2A</u>

<u>Cumulative differences from the 1882-1976 mean for selected monthly maxima at Oxford</u>

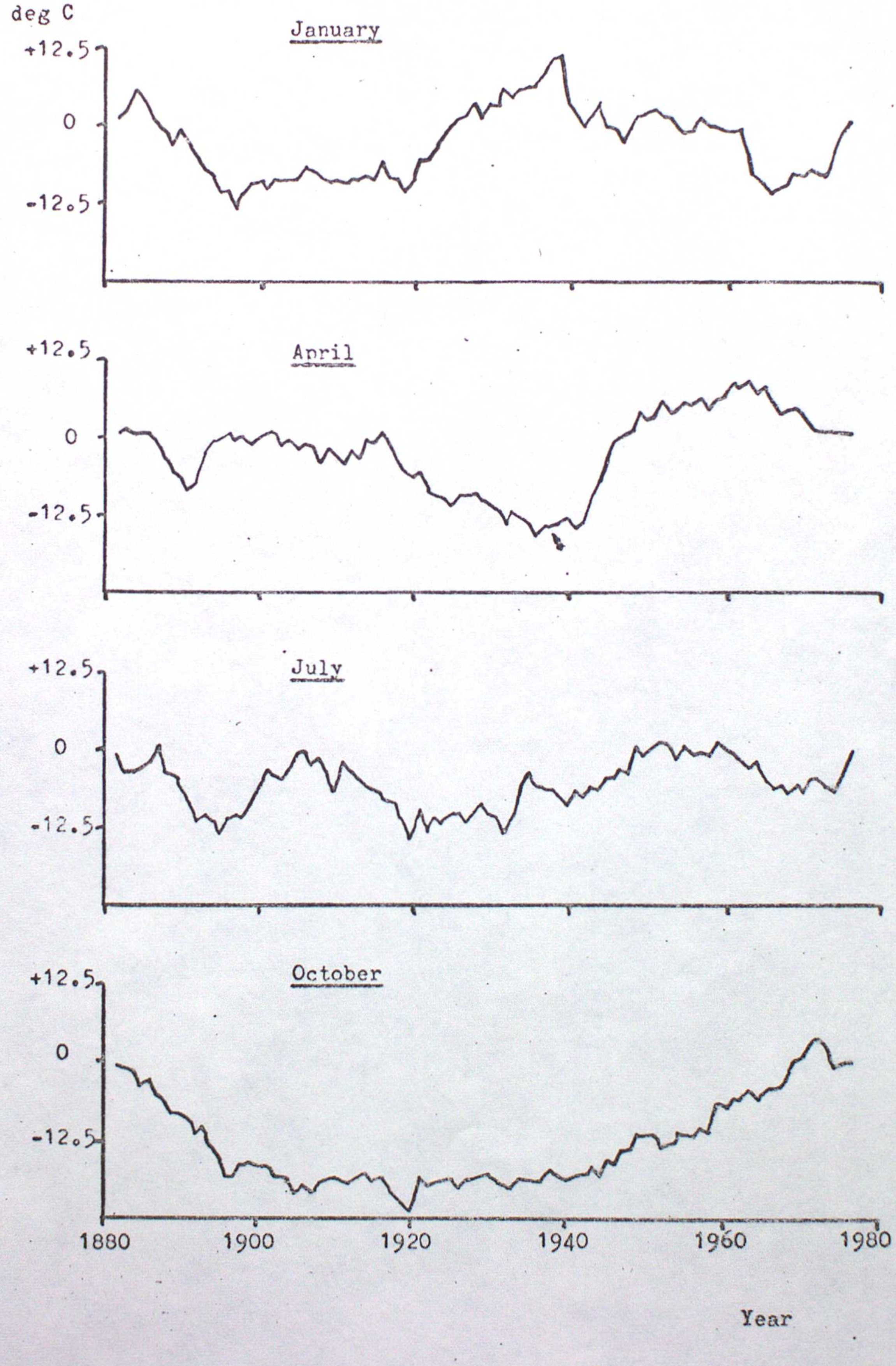


Fig 2B

Cumulative differences from 1882-1976 means

for selected monthly minima at Oxford

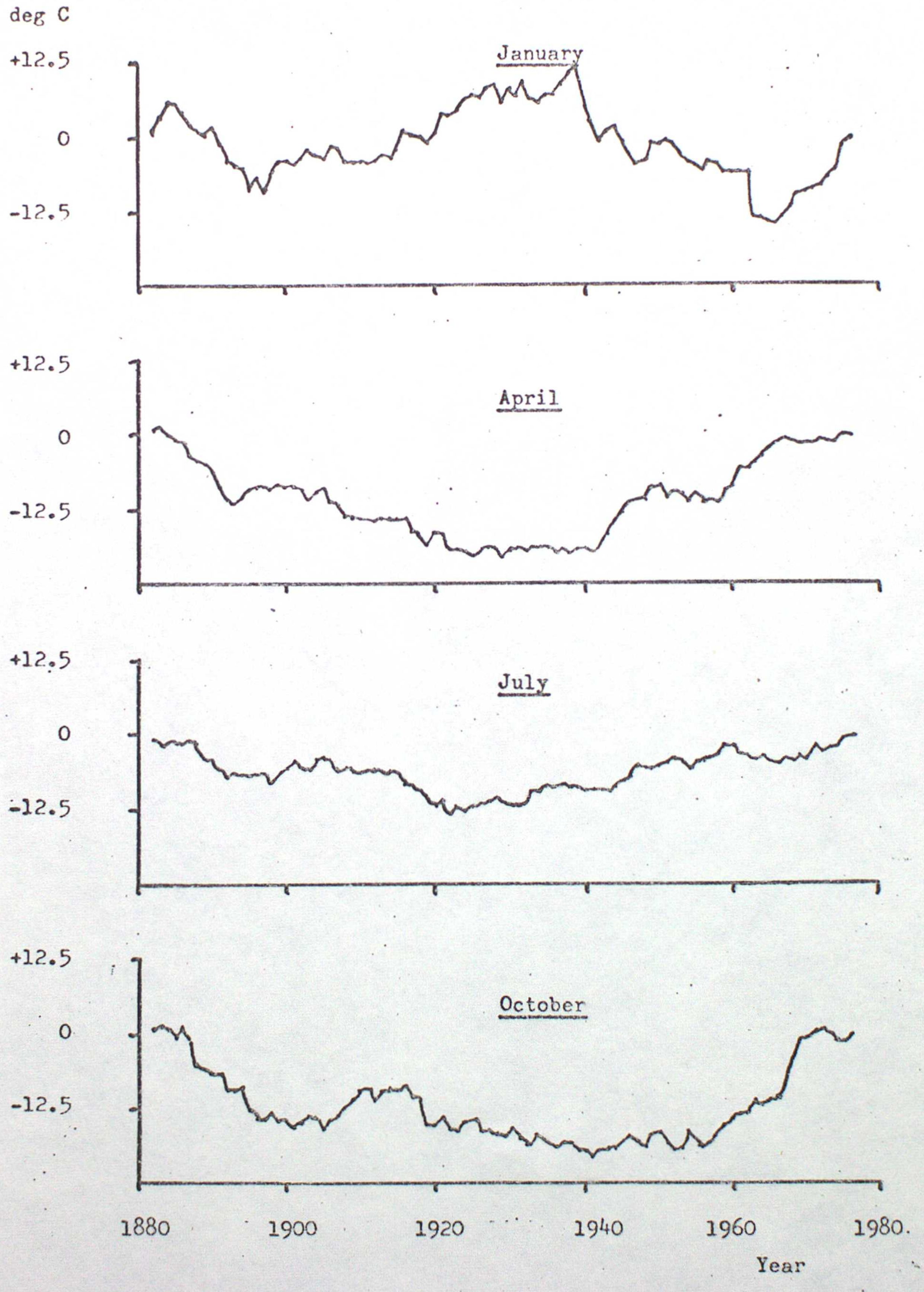


Fig 3

Oxford, April Maximum Temperatures

Forecast period mean of 10 years minus averaging period mean of 30 years, from 1911 to 1966

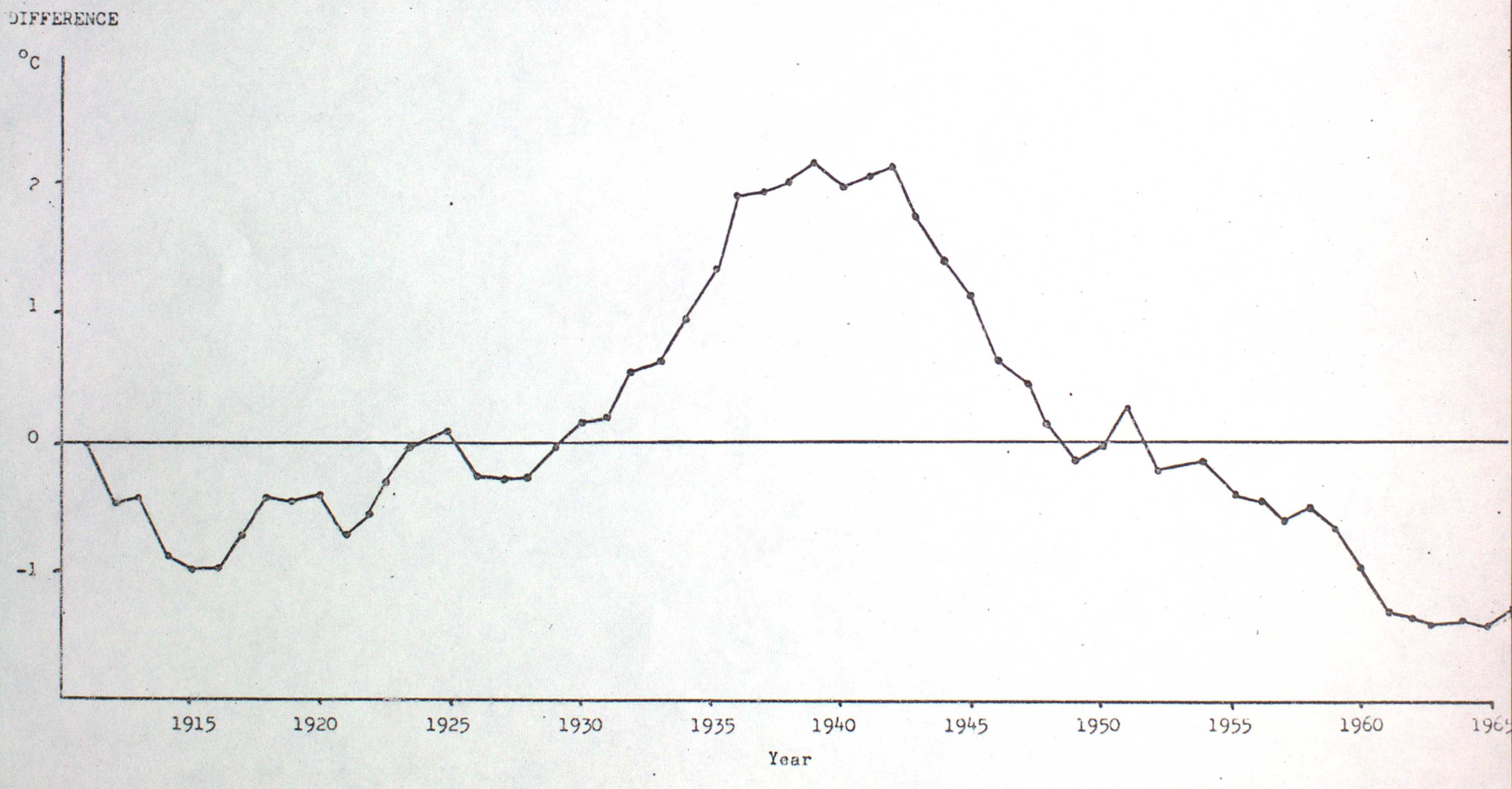


Fig 4

Value of index for Oxford Summer and Winter Maxima

Forecast period 10 years

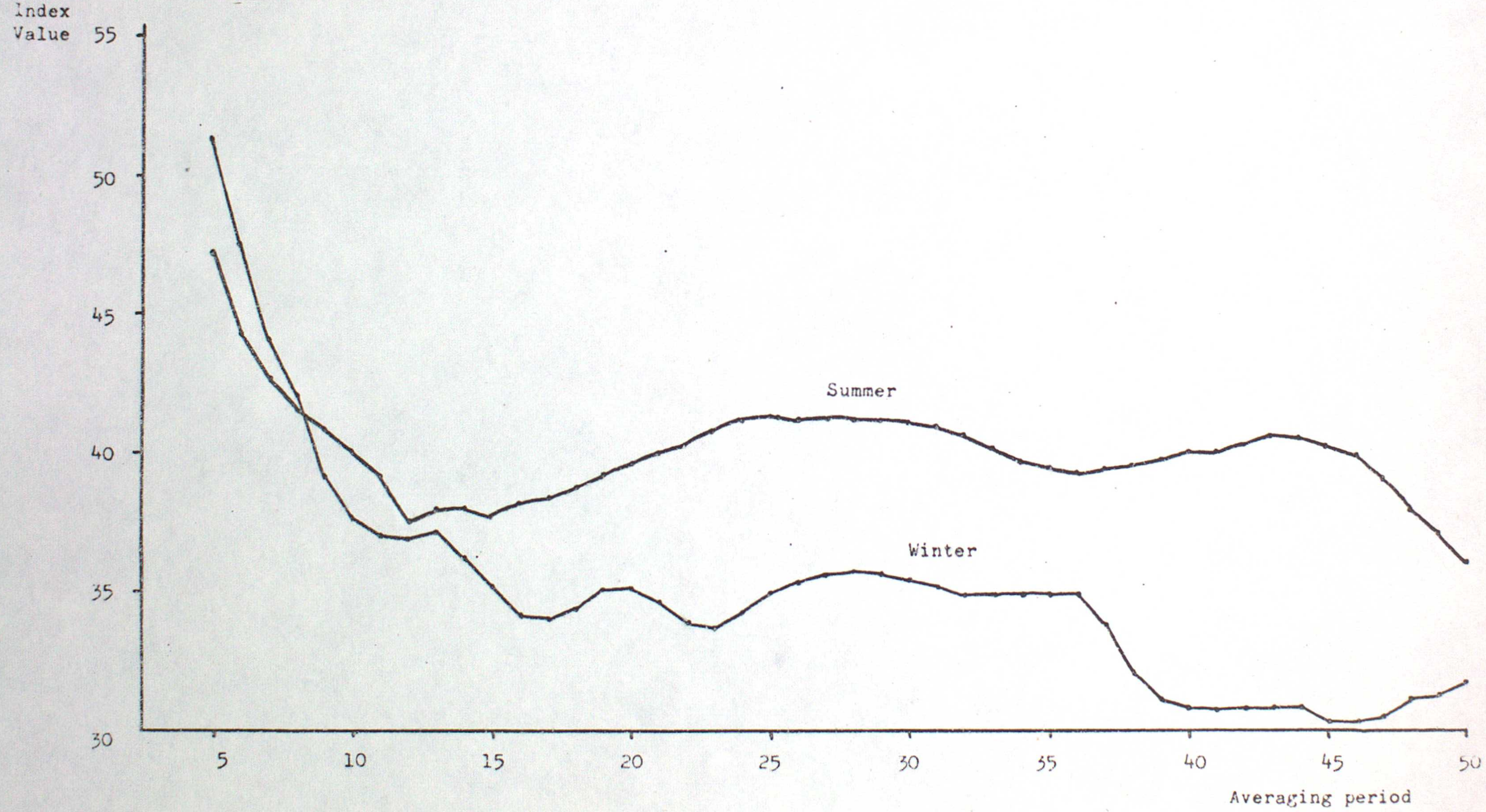
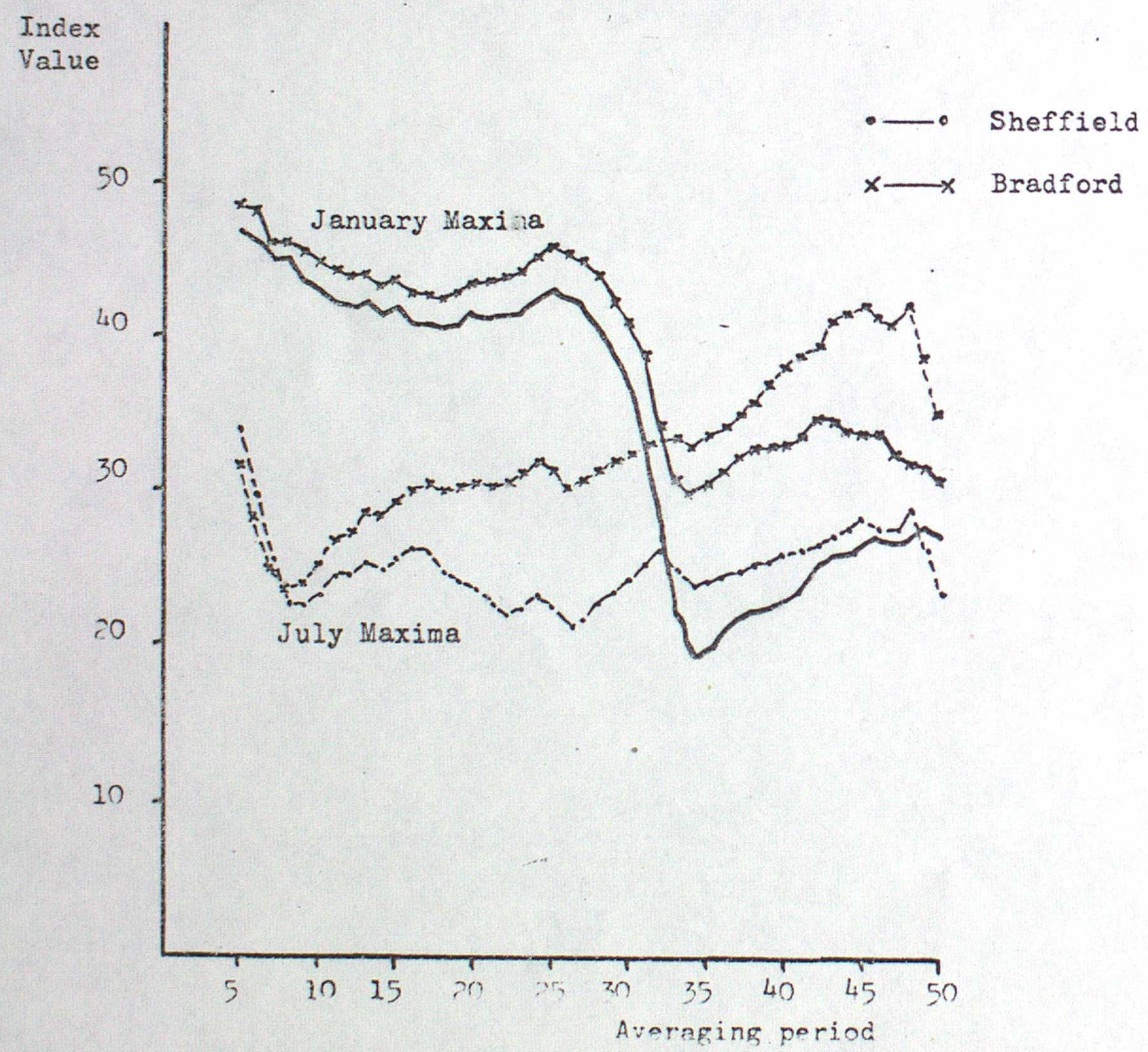


Fig 5

Comparison of index value for Sheffield and Bradford 1908-1976

Forecast Period 10 Years

A




B

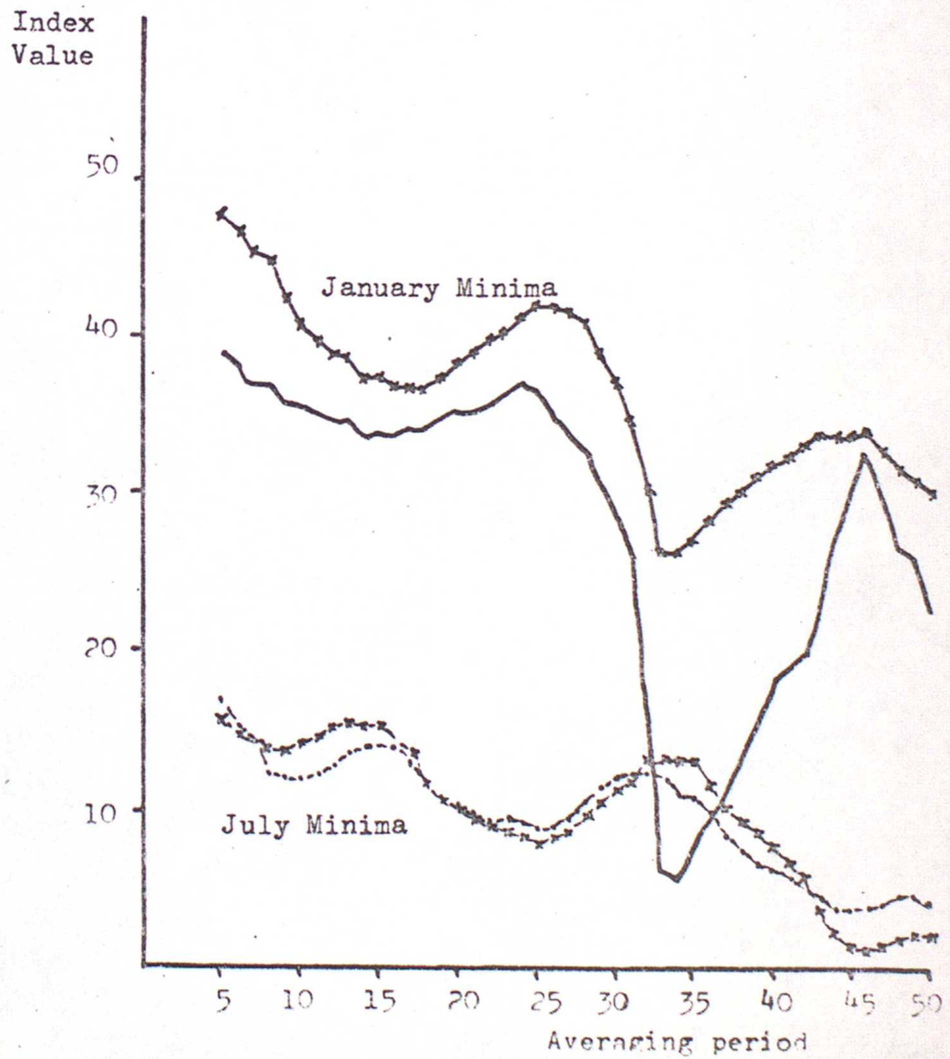


Fig 6A

Index values for selected monthly maxima at Oxford

Forecast Period 10 years

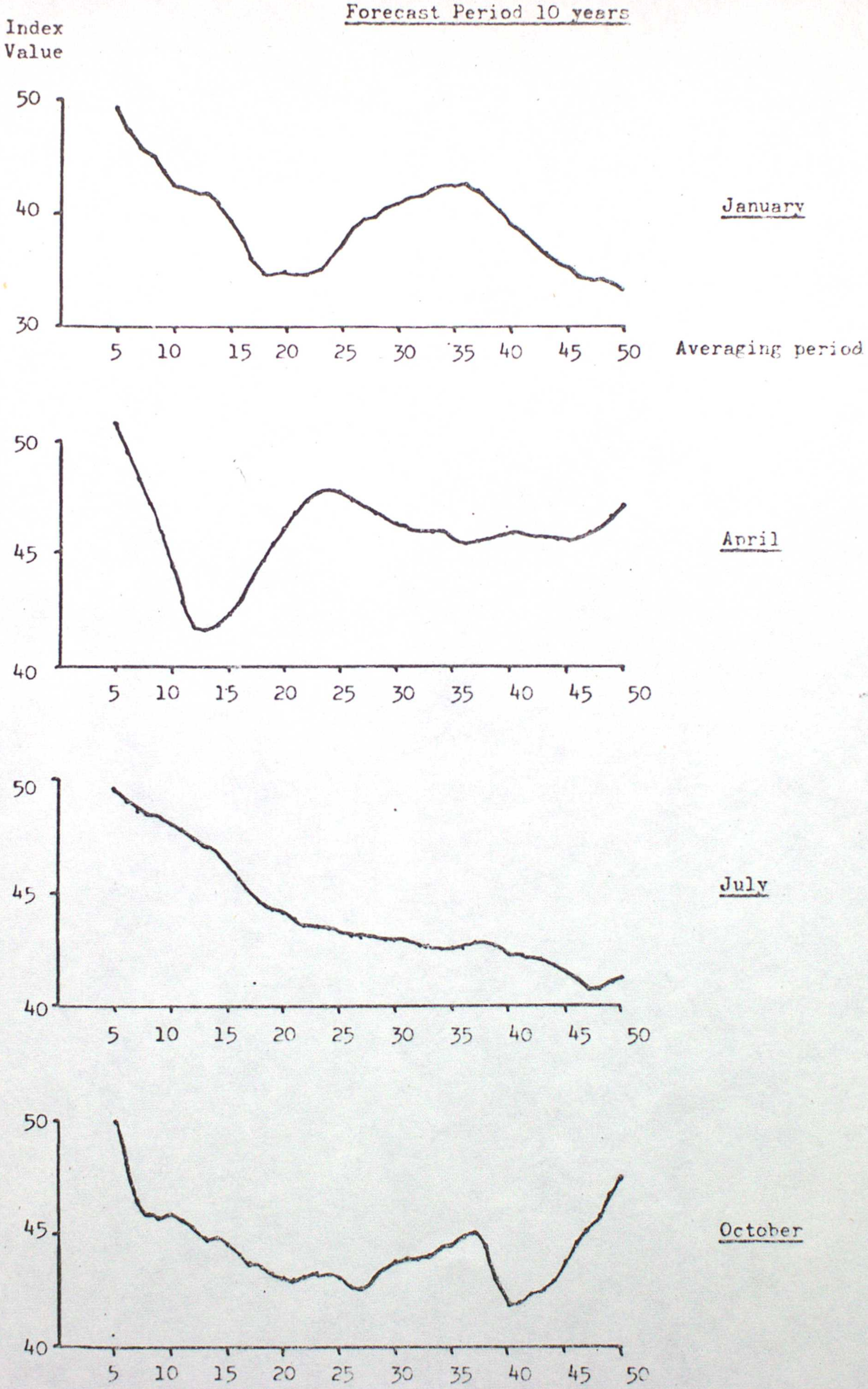


Fig 6B

Index values for selected monthly minima at Oxford

Forecast period 10 years

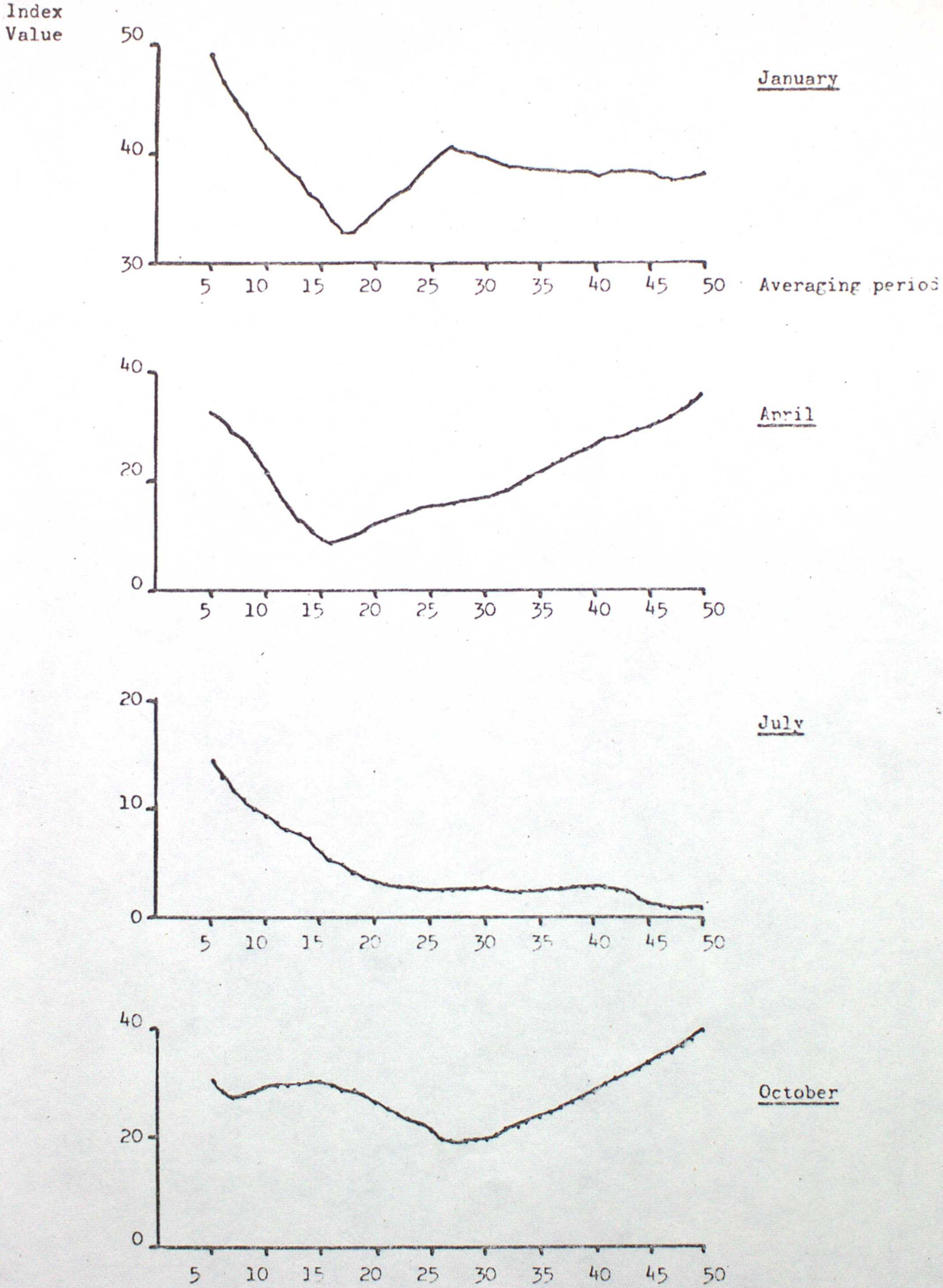
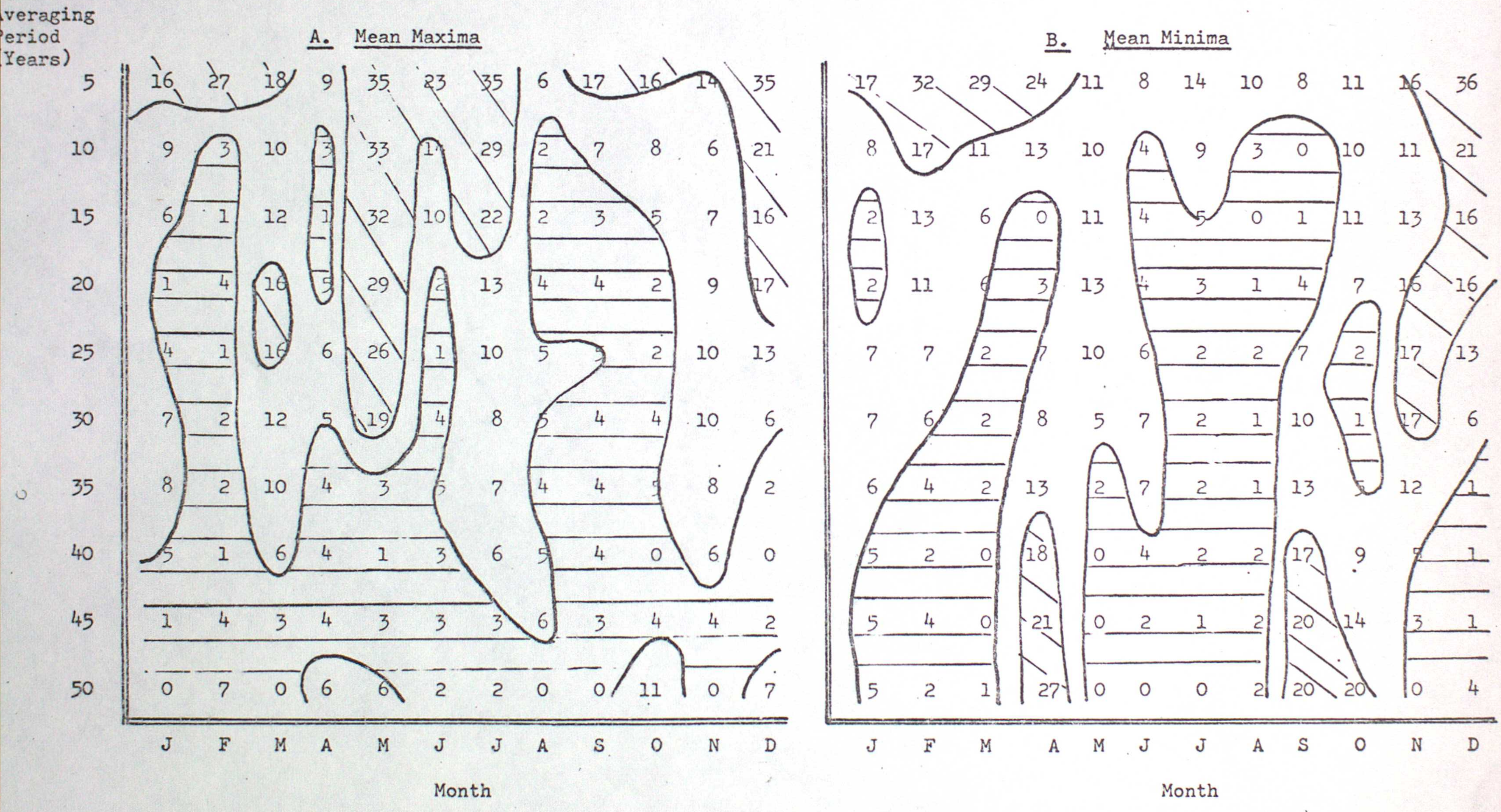


Fig. 7

1882-1976 Oxford Monthly Means, Forecast Period 10 Years

Difference between minimum index value and index value for given averaging period




A. Mean Maxima

| Averaging Period (Years) | J | F | M | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 16 | 27 | 18 | 9 | 35 | 23 | 35 | 6 | 17 | 16 | 14 | 35 |
| 10 | 9 | 3 | 10 | 3 | 33 | 1 | 29 | 2 | 7 | 8 | 6 | 21 |
| 15 | 6 | 1 | 12 | 1 | 32 | 10 | 22 | 2 | 3 | 5 | 7 | 16 |
| 20 | 1 | 4 | 16 | 5 | 29 | 2 | 13 | 4 | 4 | 2 | 9 | 17 |
| 25 | 4 | 1 | 16 | 6 | 26 | 1 | 10 | 5 | 5 | 2 | 10 | 13 |
| 30 | 7 | 2 | 12 | 5 | 19 | 4 | 8 | 5 | 4 | 4 | 10 | 6 |
| 35 | 8 | 2 | 10 | 4 | 3 | 5 | 7 | 4 | 4 | 5 | 8 | 2 |
| 40 | 5 | 1 | 6 | 4 | 1 | 3 | 6 | 5 | 4 | 0 | 6 | 0 |
| 45 | 1 | 4 | 3 | 4 | 3 | 3 | 3 | 6 | 3 | 4 | 4 | 2 |
| 50 | 0 | 7 | 0 | 6 | 6 | 2 | 2 | 0 | 0 | 11 | 0 | 7 |

B. Mean Minima

| Averaging Period (Years) | J | F | M | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 17 | 32 | 29 | 24 | 11 | 8 | 14 | 10 | 8 | 11 | 16 | 36 |
| 10 | 8 | 17 | 11 | 13 | 10 | 4 | 9 | 3 | 0 | 10 | 11 | 21 |
| 15 | 2 | 13 | 6 | 0 | 11 | 4 | 5 | 0 | 1 | 11 | 13 | 16 |
| 20 | 2 | 11 | 6 | 3 | 13 | 4 | 3 | 1 | 4 | 7 | 16 | 16 |
| 25 | 7 | 7 | 2 | 7 | 10 | 6 | 2 | 2 | 7 | 2 | 17 | 13 |
| 30 | 7 | 6 | 2 | 8 | 5 | 7 | 2 | 1 | 10 | 1 | 17 | 6 |
| 35 | 6 | 4 | 2 | 13 | 2 | 7 | 2 | 1 | 13 | 5 | 12 | 1 |
| 40 | 5 | 2 | 0 | 18 | 0 | 4 | 2 | 2 | 17 | 9 | 5 | 1 |
| 45 | 5 | 4 | 0 | 21 | 0 | 2 | 1 | 2 | 20 | 14 | 3 | 1 |
| 50 | 5 | 2 | 1 | 27 | 0 | 0 | 0 | 2 | 20 | 20 | 0 | 4 |

Key to shading: (diagonal hatching) > 15; (horizontal hatching) < 5

Fig 8A

Cumulative Differences from the 1882-1976

Mean for April Mean Monthly Maximum Temps

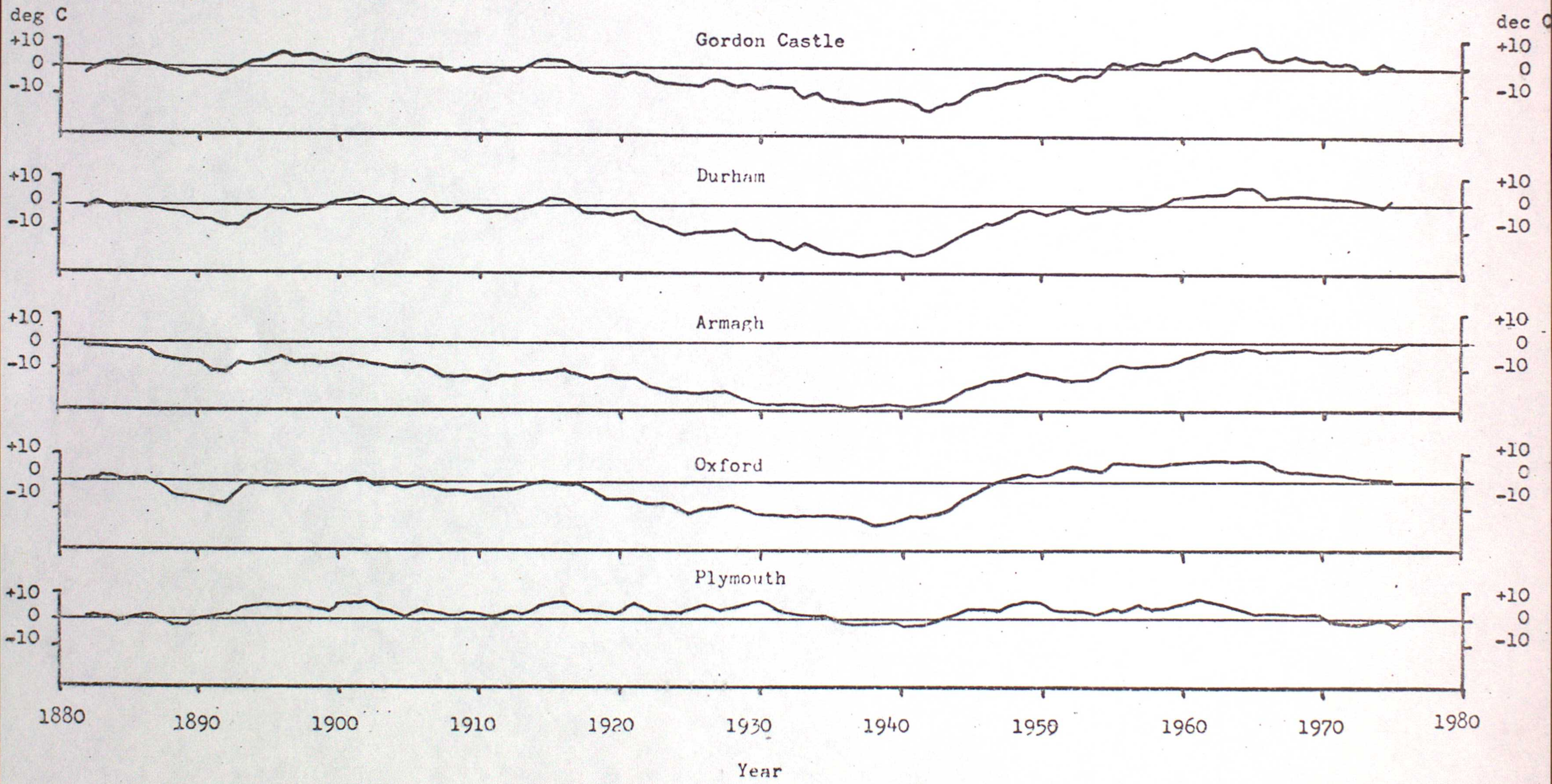
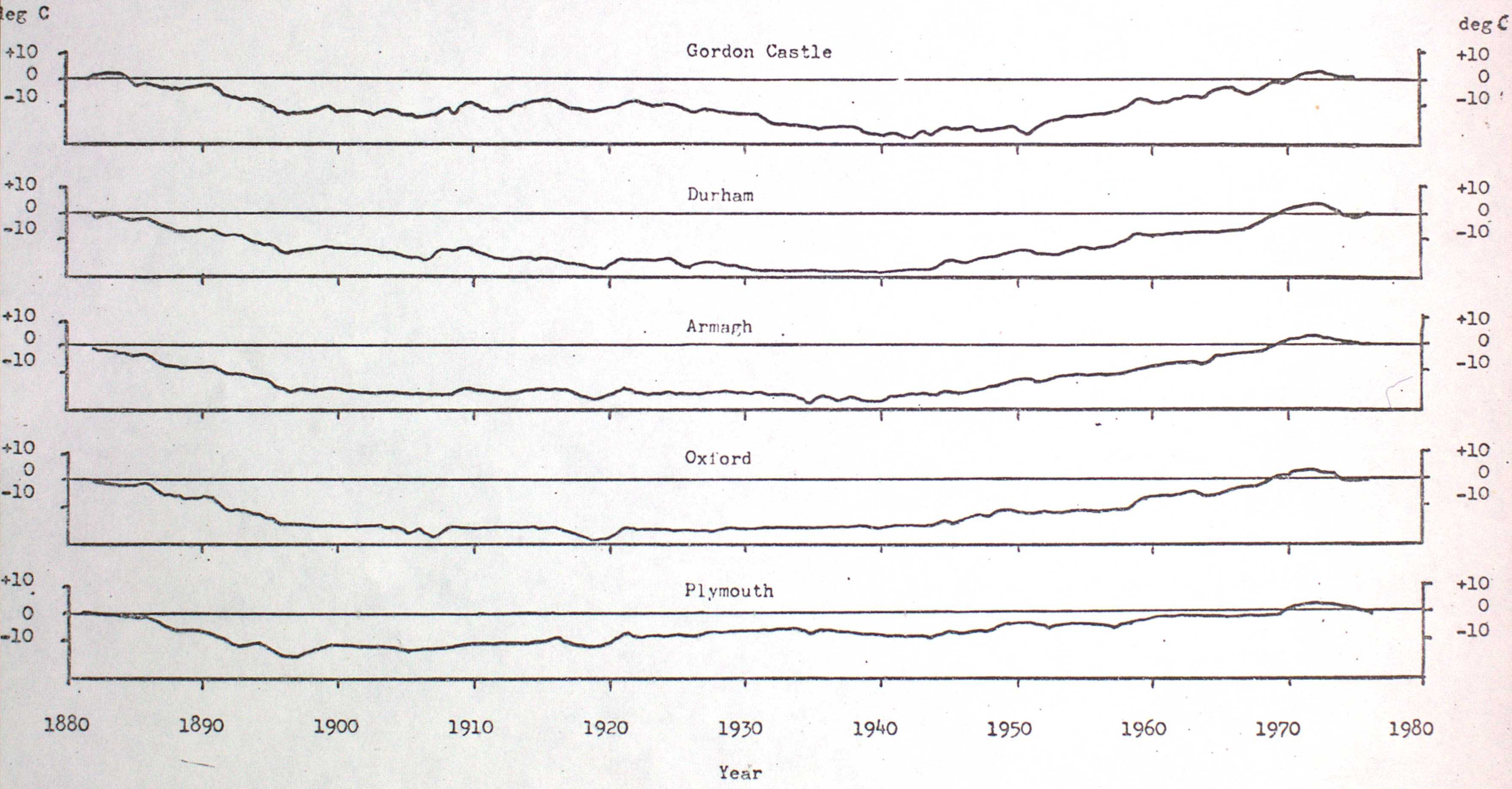


Fig 8B

Cumulative Differences from the 1882-1976 Mean for

October Mean Monthly Maximum Temperatures



## Fig 9A

### 1882-1976 Central England Temperatures

### Monthly Averages, Forecast Period 10 Years

Difference between minimum index value and index value for given averaging period

| Averaging Period (Years) | J | F | M | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 4 | 28 | 22 | 17 | 23 | 16 | 21 | 9 | 7 | 12 | 10 | 34 |
| 10 | 7 | 7 | 6 | 8 | 18 | 9 | 15 | 3 | 1 | 8 | 5 | 19 |
| 15 | 3 | 5 | 1 | 0 | 16 | 6 | 11 | 0 | 0 | 8 | 6 | 11 |
| 20 | 1 | 6 | 2 | 6 | 15 | 4 | 6 | 2 | 2 | 4 | 8 | 11 |
| 25 | 4 | 3 | 0 | 9 | 11 | 4 | 5 | 4 | 3 | 1 | 9 | 9 |
| 30 | 6 | 3 | 1 | 8 | 5 | 5 | 5 | 4 | 4 | 2 | 10 | 3 |
| 35 | 6 | 2 | 4 | 8 | 0 | 5 | 5 | 3 | 5 | 5 | 7 | 1 |
| 40 | 4 | 0 | 3 | 10 | 0 | 3 | 5 | 4 | 5 | 7 | 3 | 1 |
| 45 | 3 | 3 | 4 | 11 | 0 | 1 | 2 | 5 | 5 | 14 | 3 | 2. |
| 50 | 4 | 4 | 4 | 14 | 0 | 0 | 0 | 1 | 4 | 24 | 0 | 6 |

Month

Key to shading:

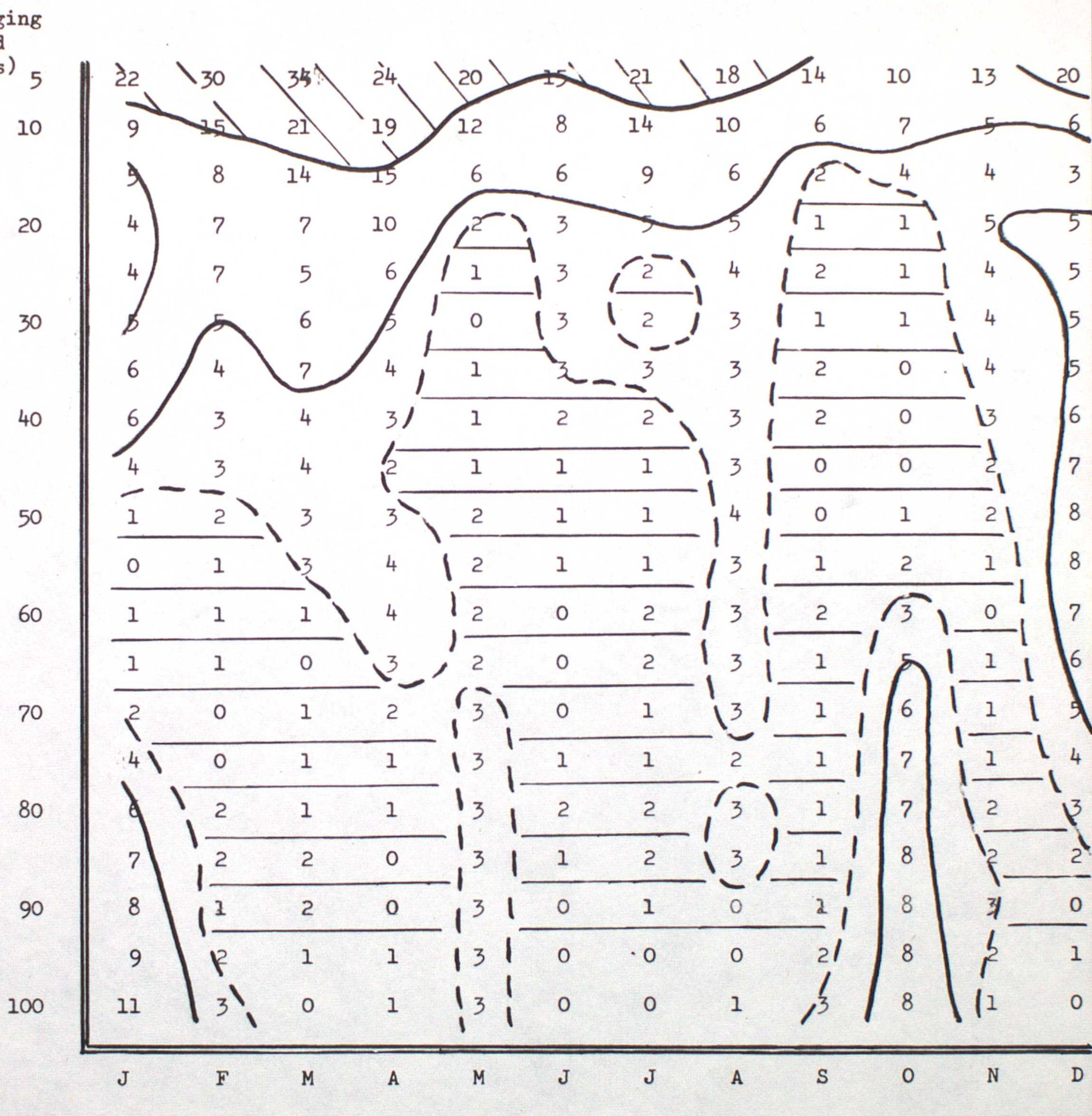
> 15 (diagonal hatching)

< 5 (horizontal lines)

<u>Fig 9B</u>

## 1723-1976 Central England Temperatures

### Monthly Averages, Forecast Period 10 Years




| Averaging Period (Years) | J | F | M | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 22 | 30 | 34 | 24 | 20 | 15 | 21 | 18 | 14 | 10 | 13 | 20 |
| 10 | 9 | 15 | 21 | 19 | 12 | 8 | 14 | 10 | 6 | 7 | 5 | 6 |
| 15 | 5 | 8 | 14 | 15 | 6 | 6 | 9 | 6 | 2 | 4 | 4 | 3 |
| 20 | 4 | 7 | 7 | 10 | 2 | 3 | 5 | 5 | 1 | 1 | 5 | 5 |
| 25 | 4 | 7 | 5 | 6 | 1 | 3 | 2 | 4 | 2 | 1 | 4 | 5 |
| 30 | 5 | 5 | 6 | 5 | 0 | 3 | 2 | 3 | 1 | 1 | 4 | 5 |
| 35 | 6 | 4 | 7 | 4 | 1 | 3 | 3 | 3 | 2 | 0 | 4 | 5 |
| 40 | 6 | 3 | 4 | 3 | 1 | 2 | 2 | 3 | 2 | 0 | 3 | 6 |
| 45 | 4 | 3 | 4 | 2 | 1 | 1 | 1 | 3 | 0 | 0 | 2 | 7 |
| 50 | 1 | 2 | 3 | 3 | 2 | 1 | 1 | 4 | 0 | 1 | 2 | 8 |
| 55 | 0 | 1 | 3 | 4 | 2 | 1 | 1 | 3 | 1 | 2 | 1 | 8 |
| 60 | 1 | 1 | 1 | 4 | 2 | 0 | 2 | 3 | 2 | 3 | 0 | 7 |
| 65 | 1 | 1 | 0 | 3 | 2 | 0 | 2 | 3 | 1 | 5 | 1 | 6 |
| 70 | 2 | 0 | 1 | 2 | 3 | 0 | 1 | 3 | 1 | 6 | 1 | 5 |
| 75 | 4 | 0 | 1 | 1 | 3 | 1 | 1 | 2 | 1 | 7 | 1 | 4 |
| 80 | 6 | 2 | 1 | 1 | 3 | 2 | 2 | 3 | 1 | 7 | 2 | 3 |
| 85 | 7 | 2 | 2 | 0 | 3 | 1 | 2 | 3 | 1 | 8 | 2 | 2 |
| 90 | 8 | 1 | 2 | 0 | 3 | 0 | 1 | 0 | 1 | 8 | 3 | 0 |
| 95 | 9 | 2 | 1 | 1 | 3 | 0 | 0 | 0 | 2 | 8 | 2 | 1 |
| 100 | 11 | 3 | 0 | 1 | 3 | 0 | 0 | 1 | 3 | 8 | 1 | 0 |

<u>Difference between minimum index value and index value</u>

<u>for specified averaging periods</u>

**Key to shading:** (hatched) > 15 —— 5 (dashed) < 2½

Fig 10A

Index Value for Central England Mean January Temperatures

Over Three Different Periods. Forecast Period 10 Years

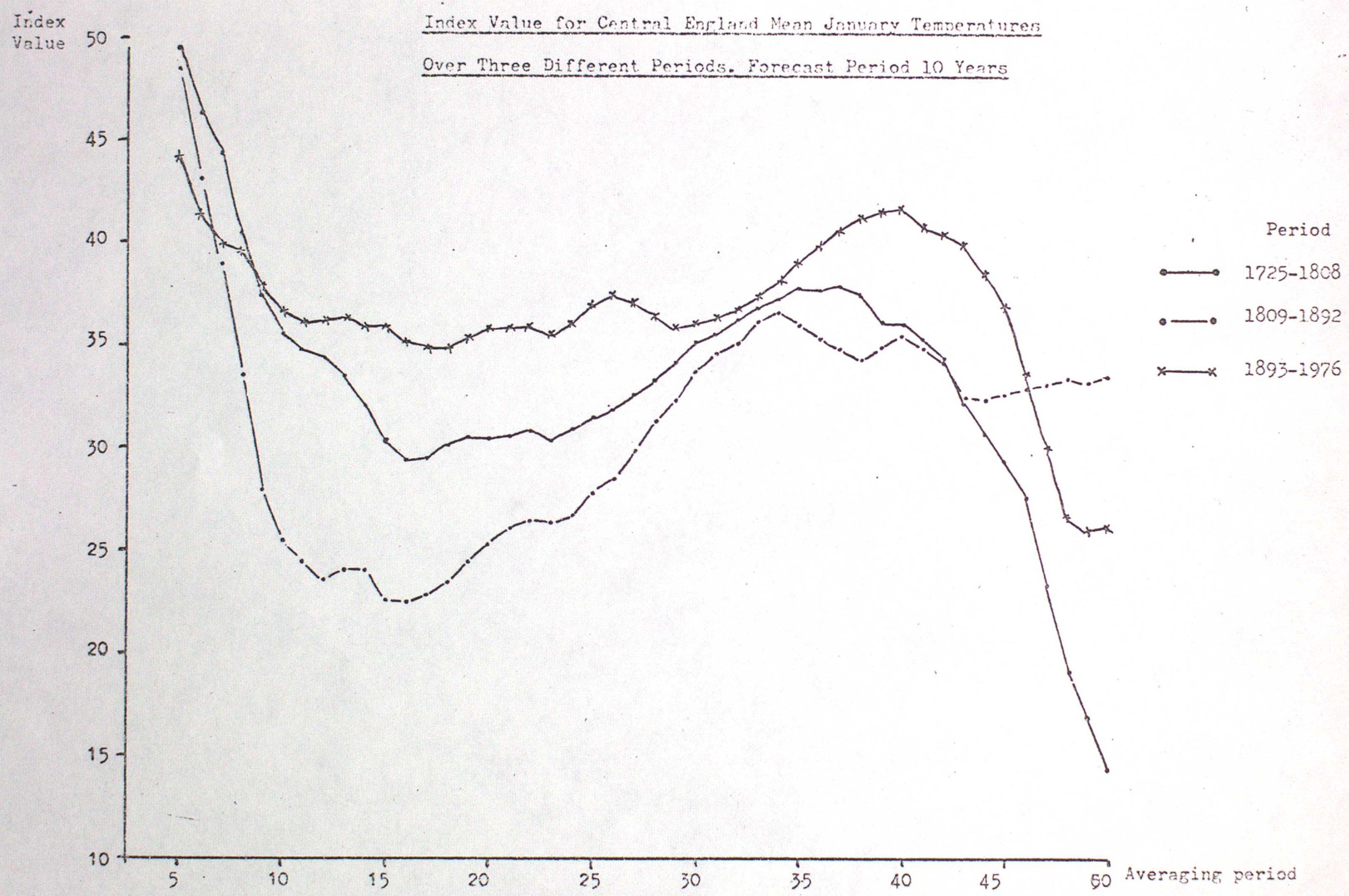


Fig. 10B

Index Value for Central England Mean July Temperatures

Over Three Different Periods. Forecast Period 10 Years

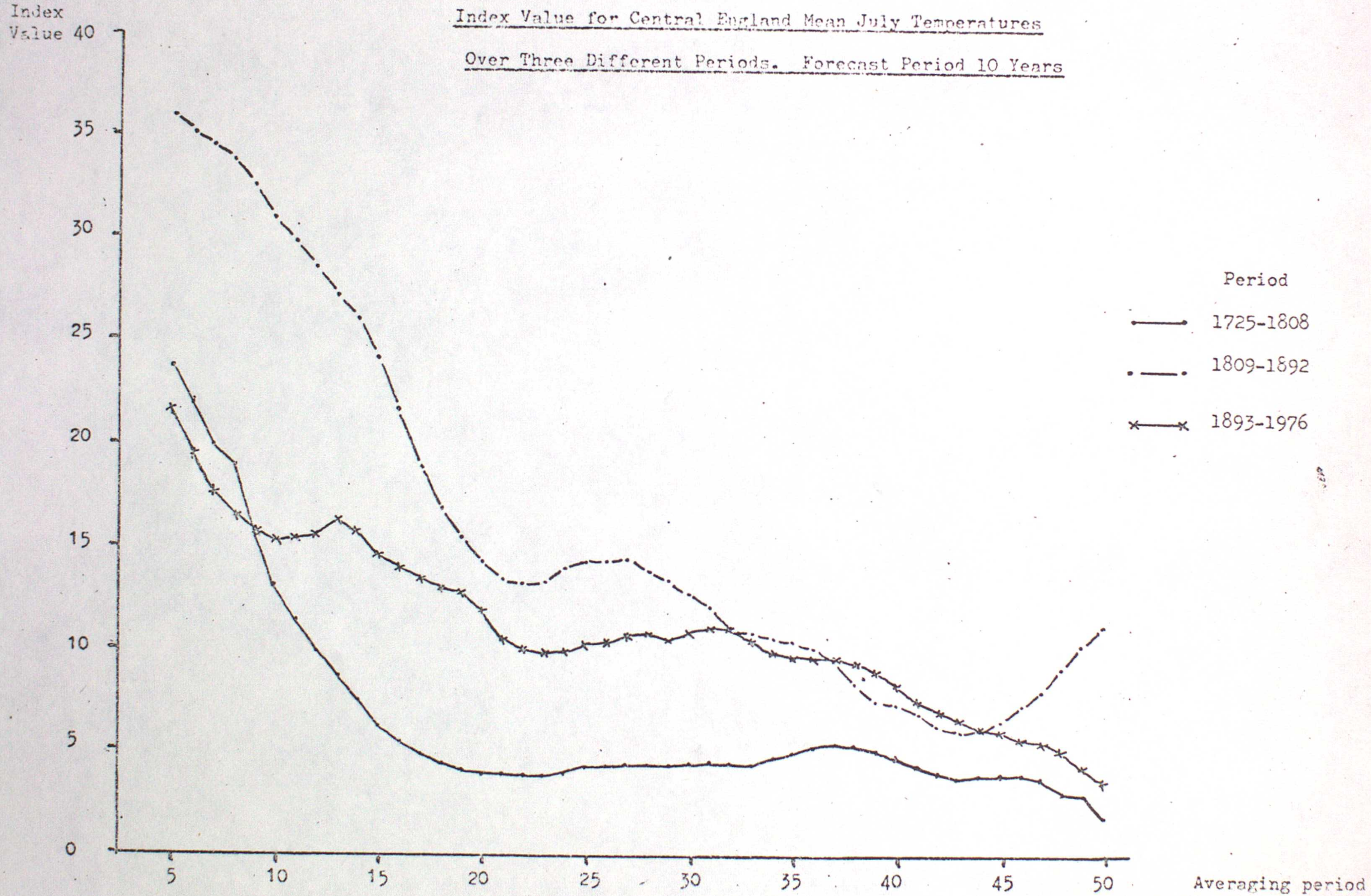


Fig. 10c

Index Value for Central England Mean October Temperatures

Over Three Different Periods. Forecast Period 10 years

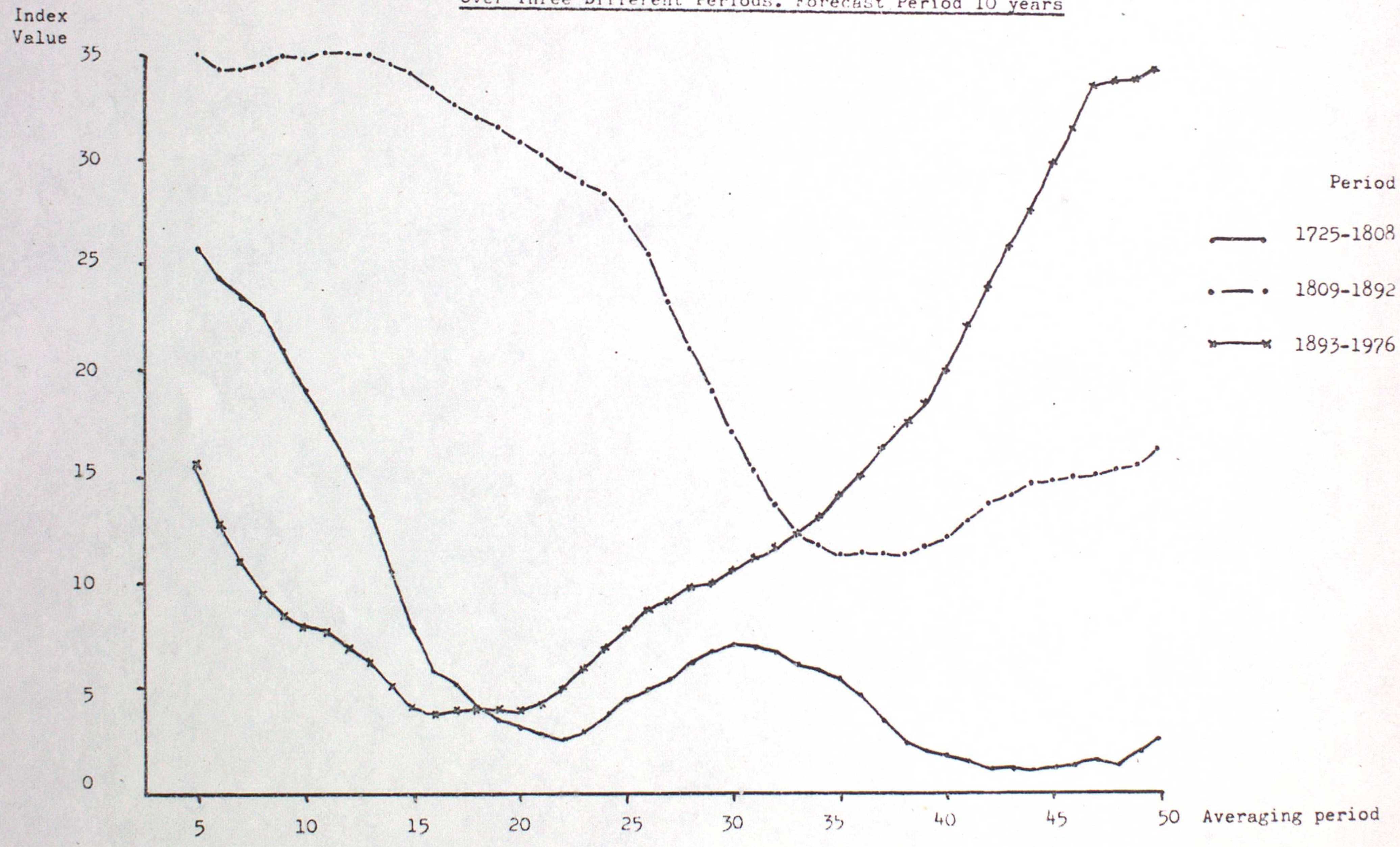
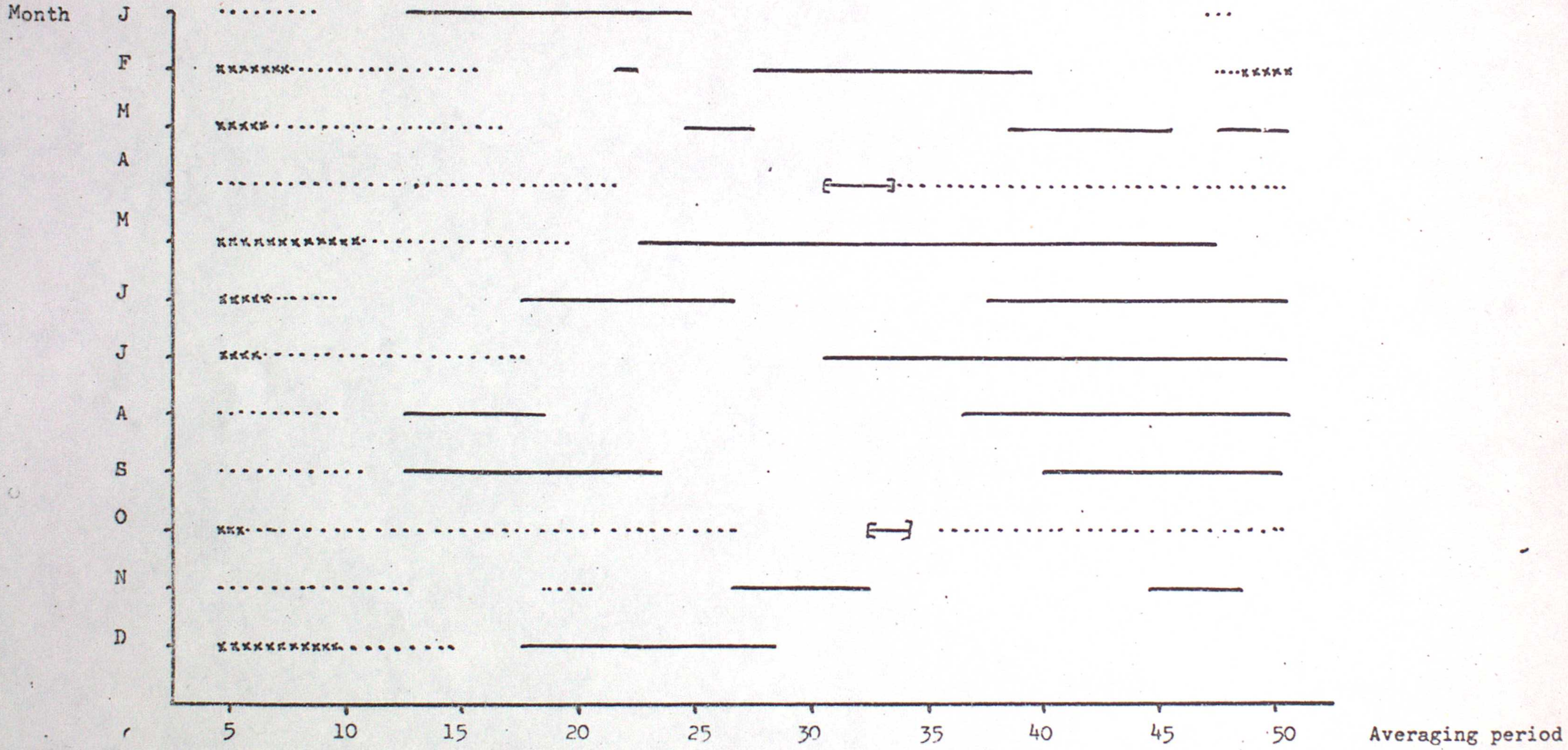


Fig 11

Averaging periods satisfying given criteria for index values of monthly

Central England temperatures over 3 periods. Forecast period 10 years




1. ——— differences within 5 of the minimum index value for all 3 periods
2. ······· one or two differences from the minimum greater than 10
3. xxxxxxx all three differences from the minimum greater than 10

[——] Averaging periods giving most accurate results over the 3 periods [criterion 1 never satisfied]

## TABLE I

### Data used for determination of optimum averaging periods

| TIME AVERAGE | PERIOD | STATION/AREA | PARAMETER |
|---|---|---|---|
| 10 days | 1882-1976 | Oxford | Maxima & Minima |
| Month | 1723-1976 | Central England | Mean |
| | 1882-1976 | Principal Stations | Maxima & Minima |
| | | UK | Maxima & Minima |
| | | Central England | Mean |
| | 1908-1976 | Sheffield | Maxima & Minima |
| | | Bradford | Maxima & Minima |
| Season | 1882-1976 | Principal Stations | Maxima & Minima |
| | | UK | Maxima & Minima |
| Year | 1882-1976 | Principal Stations | Mean |
| | | UK | Mean |

For explanation of terms see text

TABLE II

STANDARD DEVIATIONS OF MEAN TEMPERATURES 1882-1976

(i) Oxford 10-day means

| 10-Day Means | JAN | | | FEB | | | MAR | | | APR | | | MAY | | | JUN | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maxima | 2.73 | 2.76 | 2.65 | 2.78 | 2.87 | 2.87 | 2.63 | 2.21 | 2.73 | 2.52 | 2.50 | 1.97 | 2.03 | 2.31 | 2.31 | 2.44 | 2.27 | 2.26 |
| Minima | 2.62 | 2.80 | 2.78 | 2.80 | 2.86 | 2.73 | 2.50 | 2.01 | 2.10 | 1.78 | 1.83 | 1.63 | 1.66 | 1.75 | 1.52 | 1.27 | 1.45 | 1.29 |

| 10-Day Means | JUL | | | AUG | | | SEP | | | OCT | | | NOV | | | DEC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maxima | 2.57 | 2.58 | 2.29 | 2.35 | 2.40 | 2.29 | 2.57 | 1.87 | 1.93 | 2.08 | 1.73 | 1.70 | 1.57 | 1.92 | 2.12 | 2.17 | 2.60 | 2.62 |
| Minima | 1.31 | 1.17 | 1.22 | 1.25 | 1.36 | 1.33 | 1.62 | 1.65 | 1.94 | 2.09 | 2.15 | 2.26 | 1.88 | 2.18 | 2.40 | 2.40 | 2.50 | 2.65 |

TABLE II cont.

STANDARD DEVIATIONS OF MEAN TEMPERATURES 1882-1976

(ii) Monthly Means

MAXIMA

| Month \ Station | GOR | DUR | ARM | OXF | PLY |
|---|---|---|---|---|---|
| JAN | 1.61 | 1.67 | 1.42 | 1.90 | 1.46 |
| FEB | 1.89 | 1.91 | 1.57 | 2.21 | 1.66 |
| MAR | 1.99 | 1.97 | 1.48 | 1.91 | 1.26 |
| APR | 1.45 | 1.50 | 1.25 | 1.51 | 1.01 |
| MAY | 1.59 | 1.53 | 1.15 | 1.48 | 1.22 |
| JUN | 1.37 | 1.53 | 1.34 | 1.53 | 1.40 |
| JUL | 1.35 | 1.53 | 1.15 | 1.88 | 1.43 |
| AUG | 1.43 | 1.54 | 1.34 | 1.78 | 1.44 |
| SEP | 1.34 | 1.36 | 1.15 | 1.59 | 1.24 |
| OCT | 1.45 | 1.30 | 1.17 | 1.35 | 1.13 |
| NOV | 1.32 | 1.17 | 1.11 | 1.27 | 1.03 |
| DEC | 1.43 | 1.58 | 1.38 | 1.80 | 1.32 |

MINIMA

| Month \ Station | GOR | DUR | ARM | OXF | PLY |
|---|---|---|---|---|---|
| JAN | 1.48 | 1.44 | 1.52 | 1.86 | 1.71 |
| FEB | 1.72 | 1.62 | 1.68 | 2.02 | 1.86 |
| MAR | 1.48 | 1.45 | 1.52 | 1.45 | 1.42 |
| APR | 1.09 | 1.10 | 1.17 | 1.14 | 1.08 |
| MAY | 1.11 | 1.00 | 0.99 | 0.97 | 0.86 |
| JUN | 0.87 | 0.85 | 0.88 | 0.85 | 0.82 |
| JUL | 1.04 | 0.89 | 0.88 | 0.83 | 0.80 |
| AUG | 0.96 | 0.88 | 0.85 | 0.87 | 0.91 |
| SEP | 1.10 | 1.07 | 1.08 | 1.05 | 1.09 |
| OCT | 1.18 | 1.32 | 1.40 | 1.51 | 1.45 |
| NOV | 1.22 | 1.31 | 1.36 | 1.43 | 1.49 |
| DEC | 1.41 | 1.43 | 1.40 | 1.80 | 1.63 |

(iii) Seasonal Means

MAXIMA

| Season \ Station | GOR | DUR | ARM | OXF | PLY |
|---|---|---|---|---|---|
| WIN | 1.05 | 1.14 | 0.95 | 1.40 | 1.03 |
| SPR | 1.06 | 1.05 | 0.87 | 1.06 | 0.81 |
| SUM | 0.98 | 1.17 | 0.94 | 1.33 | 1.10 |
| AUT | 0.93 | 0.91 | 0.83 | 0.99 | 0.82 |

MINIMA

| Season \ Station | GOR | DUR | ARM | OXF | PLY |
|---|---|---|---|---|---|
| WIN | 0.99 | 1.03 | 1.00 | 1.39 | 1.23 |
| SPR | 0.84 | 0.79 | 0.79 | 0.78 | 0.78 |
| SUM | 0.74 | 0.62 | 0.60 | 0.57 | 0.59 |
| AUT | 0.78 | 0.83 | 0.89 | 0.88 | 0.97 |

(iv) Annual Mean

| GOR | DUR | ARM | OXF | PLY |
|---|---|---|---|---|
| 0.49 | 0.54 | 0.47 | 0.59 | 0.47 |

# TABLE III

## Percentage probability of differences between five 19-year means occuring by chance

| Month \ Station | OXF | ARM |
|---|---|---|
| JAN | 6 | 15 |
| FEB | 81 | 91 |
| MAR | 10 | 2* |
| APR | 1* | 0.3* |
| MAY | 40 | 7 |
| JUN | 33 | 12 |
| JUL | 77 | 48 |
| AUG | 78 | 16 |
| SEP | 76 | 33 |
| OCT | 0.3* | 0.01* |
| NOV | 33 | 17 |
| DEC | 54 | 30 |

MAXIMA

| Month \ Station | OXF | ARM |
|---|---|---|
| JAN | 23 | 17 |
| FEB | 77 | 73 |
| MAR | 35 | 6 |
| APR | 0.3* | 1* |
| MAY | 2* | 35 |
| JUN | 3* | 24 |
| JUL | 9 | 4* |
| AUG | 9 | 40 |
| SEP | 0.7* | 10 |
| OCT | 2* | 0.01* |
| NOV | 23 | 27 |
| DEC | 63 | 18 |

MINIMA

* denotes percentage probabilities less than 5%

LP

# TABLE IV

## VALUE OF INDEX-OXFORD 10-DAY MEANS, FORECAST PERIOD 10 YEARS

| MAXIMA: Averaging Period (Years) | | | | | | | | | | | MINIMA: Averaging Period (Years) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 59 | 52 | 49 | 42 | 39 | 41 | 43 | 44 | 43 | 46 | J | 55 | 48 | 45 | 40 | 36 | 32 | 31 | 33 | 34 | 37 |
| 53 | 46 | 37 | 33 | 35 | 37 | 38 | 40 | 41 | 38 | A | 58 | 49 | 37 | 35 | 40 | 39 | 37 | 41 | 43 | 43 |
| 50 | 46 | 47 | 47 | 45 | 40 | 39 | 33 | 33 | 36 | N | 53 | 49 | 48 | 50 | 49 | 47 | 47 | 46 | 46 | 47 |
| 40 | 26 | 20 | 16 | 20 | 21 | 21 | 18 | 12 | 10 | F | 43 | 31 | 22 | 18 | 21 | 21 | 20 | 19 | 17 | 18 |
| 46 | 29 | 30 | 31 | 25 | 24 | 23 | 26 | 26 | 29 | E | 51 | 40 | 38 | 38 | 32 | 27 | 23 | 22 | 18 | 12 |
| 40 | 31 | 22 | 23 | 23 | 27 | 29 | 25 | 29 | 30 | B | 49 | 36 | 29 | 29 | 30 | 31 | 31 | 31 | 32 | 29 |
| 47 | 37 | 29 | 26 | 22 | 23 | 27 | 24 | 23 | 23 | M | 45 | 35 | 32 | 35 | 34 | 34 | 35 | 34 | 35 | 33 |
| 37 | 29 | 21 | 17 | 18 | 19 | 21 | 20 | 19 | 19 | A | 36 | 28 | 21 | 16 | 15 | 17 | 16 | 15 | 10 | 11 |
| 53 | 40 | 38 | 41 | 44 | 45 | 45 | 46 | 44 | 37 | R | 34 | 16 | 14 | 14 | 14 | 19 | 22 | 24 | 25 | 21 |
| 47 | 27 | 20 | 24 | 26 | 20 | 17 | 18 | 14 | 13 | A | 29 | 19 | 11 | 14 | 16 | 16 | 19 | 22 | 20 | 21 |
| 58 | 60 | 62 | 63 | 63 | 62 | 61 | 62 | 63 | 65 | P | 30 | 18 | 13 | 13 | 14 | 17 | 20 | 24 | 29 | 36 |
| 47 | 36 | 22 | 20 | 21 | 16 | 16 | 14 | 10 | 12 | R | 29 | 20 | 9 | 9 | 11 | 11 | 13 | 16 | 19 | 23 |
| 29 | 19 | 11 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | M | 22 | 20 | 23 | 25 | 25 | 25 | 25 | 26 | 26 | 28 |
| 47 | 44 | 41 | 37 | 32 | 22 | 13 | 14 | 14 | 14 | A | 30 | 24 | 16 | 9 | 7 | 4 | 3 | 3 | 3 | 3 |
| 39 | 39 | 41 | 43 | 44 | 40 | 35 | 39 | 45 | 47 | Y | 18 | 15 | 14 | 14 | 11 | 7 | 5 | 4 | 5 | 6 |
| 39 | 26 | 18 | 9 | 7 | 10 | 10 | 7 | 7 | 7 | J | 12 | 5 | 3 | 3 | 3 | 3 | 2 | 2 | 1 | 1 |
| 42 | 35 | 28 | 14 | 12 | 12 | 8 | 5 | 3 | 3 | U | 13 | 6 | 6 | 6 | 5 | 6 | 8 | 11 | 12 | 9 |
| 36 | 33 | 38 | 42 | 44 | 41 | 39 | 35 | 33 | 31 | N | 22 | 18 | 18 | 19 | 22 | 24 | 22 | 17 | 10 | 9 |
| 47 | 33 | 34 | 35 | 35 | 33 | 30 | 30 | 28 | 20 | J | 22 | 12 | 13 | 13 | 13 | 13 | 12 | 11 | 10 | 7 |
| 59 | 50 | 45 | 25 | 16 | 23 | 31 | 25 | 19 | 18 | U | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 41 | 38 | 36 | 35 | 34 | 33 | 31 | 29 | 30 | 33 | L | 20 | 17 | 12 | 5 | 3 | 3 | 3 | 3 | 1 | 2 |
| 37 | 31 | 32 | 32 | 32 | 32 | 32 | 31 | 33 | 28 | A | 13 | 8 | 5 | 5 | 6 | 6 | 7 | 8 | 10 | 6 |
| 47 | 35 | 25 | 24 | 26 | 23 | 20 | 21 | 23 | 22 | U | 21 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 42 | 34 | 31 | 34 | 35 | 36 | 37 | 38 | 36 | 26 | G | 22 | 9 | 3 | 7 | 7 | 3 | 5 | 7 | 7 | 10 |
| 34 | 20 | 16 | 12 | 14 | 14 | 14 | 14 | 15 | 11 | S | 21 | 9 | 6 | 5 | 5 | 3 | 4 | 4 | 2 | 2 |
| 32 | 23 | 24 | 28 | 27 | 27 | 27 | 26 | 21 | 14 | E | 31 | 20 | 17 | 18 | 20 | 21 | 24 | 28 | 27 | 20 |
| 26 | 17 | 11 | 10 | 11 | 11 | 9 | 7 | 3 | 1 | P | 23 | 10 | 12 | 14 | 16 | 17 | 19 | 21 | 20 | 21 |
| 33 | 23 | 18 | 16 | 17 | 21 | 19 | 9 | 12 | 19 | O | 30 | 23 | 22 | 16 | 13 | 15 | 15 | 16 | 20 | 24 |
| 19 | 13 | 15 | 15 | 12 | 10 | 13 | 15 | 21 | 23 | C | 44 | 41 | 38 | 34 | 24 | 12 | 9 | 9 | 16 | 20 |
| 22 | 7 | 5 | 3 | 3 | 3 | 5 | 6 | 9 | 11 | T | 35 | 20 | 23 | 25 | 28 | 31 | 34 | 37 | 40 | 44 |
| 24 | 15 | 13 | 14 | 14 | 14 | 13 | 9 | 9 | 8 | N | 30 | 23 | 19 | 19 | 21 | 21 | 19 | 11 | 9 | 4 |
| 32 | 18 | 19 | 19 | 21 | 19 | 12 | 8 | 7 | 4 | O | 39 | 26 | 28 | 30 | 32 | 33 | 24 | 18 | 16 | 13 |
| 32 | 16 | 15 | 14 | 13 | 14 | 17 | 20 | 17 | 13 | V | 37 | 19 | 14 | 15 | 14 | 13 | 14 | 15 | 9 | 9 |
| 30 | 17 | 14 | 15 | 10 | 5 | 3 | 2 | 3 | 5 | D | 33 | 20 | 16 | 16 | 12 | 6 | 2 | 3 | 4 | 6 |
| 42 | 23 | 25 | 27 | 21 | 19 | 17 | 15 | 9 | 11 | E | 42 | 23 | 25 | 25 | 15 | 11 | 8 | 6 | 1 | 2 |
| 54 | 45 | 40 | 40 | 42 | 40 | 34 | 28 | 29 | 29 | C | 53 | 47 | 41 | 39 | 40 | 38 | 35 | 35 | 34 | 34 |

## TABLES V(a) to V(g)

Abbreviations

GOR : Gordon Castle

DUR : Durham

ARM : Armagh

OXF : Oxford

PLY : Plymouth

UK : A temperature series corresponding to the mean of temperatures over the above 5 stations

The figures at the head of each column of the tables are averaging periods in years.

# TABLE V (a) - VALUE OF INDEX - JANUARY

## Forecast Period 3 Years

**MEAN MAXIMA**

| | Averaging Period | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 52 | 47 | 45 | 44 | 44 | 46 | 47 | 48 | 47 | 48 |
| DUR | 53 | 50 | 48 | 47 | 47 | 49 | 50 | 50 | 51 | 51 |
| ARM | 47 | 43 | 41 | 41 | 39 | 42 | 44 | 42 | 39 | 39 |
| OXF | 60 | 58 | 58 | 57 | 56 | 59 | 61 | 60 | 60 | 60 |
| PLY | 49 | 48 | 47 | 46 | 44 | 47 | 50 | 49 | 47 | 48 |
| UK | 49 | 47 | 45 | 45 | 43 | 46 | 48 | 47 | 46 | 47 |

**MEAN MINIMA**

| | Averaging Period | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 50 | 47 | 45 | 45 | 46 | 48 | 50 | 50 | 49 | 50 |
| DUR | 50 | 49 | 47 | 45 | 44 | 47 | 47 | 48 | 49 | 50 |
| ARM | 47 | 46 | 45 | 44 | 43 | 46 | 49 | 49 | 48 | 49 |
| OXF | 58 | 57 | 55 | 55 | 55 | 58 | 59 | 58 | 59 | 60 |
| PLY | 53 | 52 | 51 | 48 | 49 | 51 | 51 | 51 | 51 | 52 |
| UK | 47 | 47 | 44 | 43 | 43 | 46 | 47 | 47 | 47 | 48 |

## Forecast Period 5 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 47 | 39 | 36 | 35 | 34 | 37 | 38 | 39 | 38 | 39 |
| DUR | 44 | 38 | 34 | 33 | 33 | 35 | 37 | 37 | 37 | 37 |
| ARM | 38 | 32 | 29 | 28 | 26 | 30 | 32 | 29 | 23 | 22 |
| OXF | 53 | 50 | 49 | 46 | 46 | 49 | 51 | 50 | 48 | 48 |
| PLY | 45 | 41 | 39 | 35 | 34 | 38 | 41 | 39 | 36 | 36 |
| UK | 42 | 37 | 34 | 32 | 31 | 35 | 37 | 37 | 34 | 34 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 40 | 42 | 39 | 39 | 41 | 43 | 44 | 45 | 43 | 44 |
| DUR | 46 | 42 | 37 | 34 | 35 | 37 | 37 | 39 | 40 | 43 |
| ARM | 41 | 38 | 36 | 33 | 33 | 37 | 39 | 39 | 37 | 38 |
| OXF | 52 | 49 | 46 | 44 | 47 | 49 | 49 | 49 | 49 | 50 |
| PLY | 46 | 42 | 39 | 34 | 35 | 39 | 39 | 38 | 38 | 38 |
| UK | 42 | 38 | 34 | 31 | 33 | 37 | 37 | 37 | 37 | 37 |

## Forecast Period 10 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 40 | 31 | 26 | 23 | 24 | 25 | 27 | 27 | 26 | 30 |
| DUR | 38 | 28 | 24 | 21 | 22 | 24 | 25 | 24 | 22 | 22 |
| ARM | 33 | 34 | 22 | 18 | 19 | 22 | 22 | 16 | 10 | 10 |
| OXF | 49 | 43 | 39 | 35 | 37 | 41 | 42 | 39 | 35 | 34 |
| PLY | 39 | 31 | 28 | 22 | 24 | 29 | 31 | 26 | 24 | 25 |
| UK | 35 | 28 | 25 | 21 | 23 | 26 | 27 | 24 | 21 | 21 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 42 | 32 | 27 | 29 | 32 | 32 | 34 | 33 | 32 | 35 |
| DUR | 40 | 29 | 21 | 17 | 21 | 21 | 21 | 23 | 23 | 21 |
| ARM | 39 | 32 | 28 | 24 | 26 | 30 | 31 | 31 | 31 | 35 |
| OXF | 49 | 41 | 35 | 35 | 39 | 40 | 38 | 38 | 38 | 38 |
| PLY | 42 | 35 | 28 | 23 | 27 | 30 | 29 | 27 | 26 | 18 |
| UK | 37 | 28 | 22 | 20 | 24 | 25 | 26 | 25 | 24 | 24 |

## Forecast Period 20 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 37 | 33 | 20 | 16 | 16 | 17 | 17 | 17 | 17 | 18 |
| DUR | 34 | 21 | 17 | 15 | 15 | 15 | 13 | 8 | 6 | 5 |
| ARM | 30 | 19 | 16 | 16 | 15 | 14 | 10 | 2 | 0 | 0 |
| OXF | 45 | 37 | 34 | 33 | 35 | 35 | 32 | 23 | 19 | 17 |
| PLY | 31 | 23 | 20 | 19 | 22 | 23 | 21 | 14 | 10 | 10 |
| UK | 32 | 23 | 20 | 19 | 20 | 20 | 17 | 10 | 4 | 3 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 32 | 22 | 21 | 21 | 22 | 22 | 22 | 22 | 23 | 25 |
| DUR | 31 | 17 | 12 | 10 | 10 | 10 | 8 | 3 | 2 | 1 |
| ARM | 31 | 24 | 23 | 23 | 24 | 26 | 27 | 26 | 26 | 25 |
| OXF | 42 | 35 | 32 | 31 | 32 | 31 | 29 | 29 | 28 | 23 |
| PLY | 37 | 30 | 26 | 24 | 25 | 27 | 24 | 14 | 9 | 5 |
| UK | 29 | 21 | 19 | 17 | 19 | 19 | 17 | 11 | 7 | 5 |

# TABLE V (b) - VALUE OF INDEX - FEBRUARY

## Forecast Period 3 Years

**Mean Maxima** — Averaging Period

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 55 | 52 | 49 | 48 | 47 | 47 | 47 | 47 | 49 | 50 |
| DUR | 60 | 55 | 51 | 52 | 51 | 51 | 51 | 52 | 54 | 53 |
| ARM | 49 | 46 | 42 | 42 | 41 | 42 | 43 | 43 | 44 | 44 |
| OXF | 64 | 59 | 54 | 56 | 55 | 56 | 56 | 56 | 57 | 57 |
| PLY | 56 | 49 | 45 | 48 | 47 | 48 | 49 | 49 | 48 | 49 |
| UK | 55 | 50 | 45 | 47 | 46 | 47 | 47 | 47 | 48 | 48 |

**Mean Minima** — Averaging Period

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 49 | 47 | 44 | 45 | 47 | 48 | 49 | 49 | 49 | 51 |
| DUR | 55 | 52 | 47 | 49 | 48 | 48 | 48 | 49 | 51 | 51 |
| ARM | 50 | 48 | 43 | 43 | 44 | 44 | 46 | 43 | 44 | 45 |
| OXF | 61 | 57 | 52 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| PLY | 58 | 53 | 49 | 50 | 50 | 51 | 52 | 51 | 51 | 53 |
| UK | 51 | 47 | 42 | 44 | 44 | 44 | 45 | 44 | 45 | 46 |

## Forecast Period 5 Years

**Mean Maxima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 44 | 39 | 35 | 33 | 32 | 29 | 30 | 31 | 34 | 34 |
| DUR | 48 | 39 | 33 | 34 | 32 | 31 | 32 | 33 | 35 | 34 |
| ARM | 36 | 32 | 25 | 26 | 26 | 25 | 26 | 25 | 27 | 27 |
| OXF | 53 | 43 | 36 | 41 | 40 | 39 | 40 | 39 | 40 | 40 |
| PLY | 44 | 35 | 30 | 34 | 35 | 35 | 37 | 36 | 34 | 33 |
| UK | 42 | 33 | 27 | 30 | 29 | 27 | 28 | 28 | 30 | 30 |

**Mean Minima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 38 | 35 | 34 | 35 | 37 | 38 | 40 | 39 | 39 | 39 |
| DUR | 45 | 36 | 32 | 34 | 32 | 30 | 30 | 30 | 33 | 33 |
| ARM | 37 | 33 | 28 | 29 | 30 | 32 | 34 | 30 | 30 | 31 |
| OXF | 52 | 43 | 38 | 39 | 38 | 36 | 36 | 36 | 36 | 32 |
| PLY | 48 | 39 | 34 | 37 | 37 | 38 | 40 | 37 | 36 | 39 |
| UK | 37 | 30 | 26 | 29 | 28 | 28 | 30 | 28 | 28 | 29 |

## Forecast Period 10 Years

**Mean Maxima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 37 | 28 | 22 | 19 | 15 | 12 | 13 | 15 | 17 | 17 |
| DUR | 38 | 19 | 14 | 12 | 7 | 7 | 6 | 8 | 10 | 10 |
| ARM | 30 | 18 | 13 | 13 | 12 | 11 | 11 | 9 | 12 | 13 |
| OXF | 44 | 19 | 17 | 20 | 17 | 18 | 19 | 17 | 21 | 23 |
| PLY | 37 | 20 | 18 | 22 | 22 | 23 | 24 | 19 | 21 | 22 |
| UK | 33 | 15 | 13 | 14 | 11 | 11 | 10 | 10 | 12 | 13 |

**Mean Minima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 33 | 31 | 29 | 31 | 32 | 34 | 33 | 32 | 33 | 33 |
| DUR | 33 | 17 | 15 | 14 | 9 | 7 | 6 | 7 | 10 | 9 |
| ARM | 31 | 21 | 18 | 19 | 20 | 23 | 23 | 17 | 21 | 21 |
| OXF | 45 | 30 | 25 | 23 | 20 | 19 | 17 | 15 | 17 | 14 |
| PLY | 40 | 24 | 22 | 23 | 24 | 25 | 24 | 18 | 20 | 20 |
| UK | 30 | 18 | 16 | 17 | 16 | 16 | 15 | 12 | 15 | 15 |

## Forecast Period 20 Years

**Mean Maxima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 31 | 23 | 17 | 16 | 13 | 10 | 11 | 12 | 13 | 11 |
| DUR | 32 | 14 | 6 | 5 | 2 | 1 | 2 | 3 | 4 | 4 |
| ARM | 20 | 11 | 7 | 7 | 4 | 2 | 2 | 2 | 2 | 2 |
| OXF | 40 | 21 | 16 | 18 | 15 | 13 | 15 | 14 | 17 | 17 |
| PLY | 33 | 22 | 20 | 23 | 22 | 20 | 21 | 20 | 19 | 17 |
| UK | 26 | 14 | 10 | 11 | 9 | 6 | 7 | 7 | 8 | 7 |

**Mean Minima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 33 | 30 | 31 | 34 | 34 | 34 | 33 | 31 | 30 | 31 |
| DUR | 29 | 15 | 11 | 9 | 5 | 2 | 3 | 3 | 4 | 4 |
| ARM | 28 | 20 | 18 | 20 | 18 | 18 | 18 | 15 | 16 | 16 |
| OXF | 40 | 26 | 19 | 15 | 11 | 5 | 4 | 3 | 3 | 1 |
| PLY | 37 | 25 | 23 | 25 | 24 | 20 | 20 | 15 | 13 | 11 |
| UK | 25 | 16 | 16 | 17 | 14 | 11 | 12 | 10 | 9 | 9 |

# TABLE V (c) - VALUE OF INDEX - MARCH

## Forecast Period 3 Years

**MEAN MAXIMA** — Averaging Period

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 52 | 48 | 44 | 44 | 45 | 46 | 45 | 45 | 47 | 46 |
| DUR | 55 | 51 | 46 | 48 | 49 | 49 | 48 | 48 | 49 | 49 |
| ARM | 36 | 33 | 27 | 29 | 31 | 33 | 34 | 36 | 39 | 40 |
| OXF | 54 | 51 | 46 | 46 | 48 | 47 | 48 | 46 | 47 | 48 |
| PLY | 37 | 29 | 24 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |
| UK | 46 | 41 | 35 | 36 | 37 | 38 | 37 | 37 | 39 | 39 |

**MEAN MINIMA** — Averaging Period

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 41 | 35 | 32 | 34 | 34 | 34 | 36 | 37 | 38 | 41 |
| DUR | 48 | 41 | 39 | 40 | 39 | 39 | 38 | 38 | 38 | 41 |
| ARM | 41 | 38 | 36 | 36 | 37 | 40 | 42 | 43 | 44 | 47 |
| OXF | 53 | 43 | 39 | 40 | 36 | 36 | 34 | 31 | 29 | 28 |
| PLY | 47 | 36 | 33 | 32 | 32 | 32 | 34 | 35 | 35 | 39 |
| UK | 43 | 34 | 30 | 31 | 30 | 30 | 31 | 30 | 30 | 34 |

## Forecast Period 5 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 41 | 32 | 27 | 29 | 30 | 31 | 29 | 31 | 29 | 28 |
| DUR | 44 | 36 | 28 | 33 | 35 | 34 | 31 | 31 | 30 | 30 |
| ARM | 27 | 20 | 12 | 17 | 20 | 22 | 24 | 27 | 29 | 31 |
| OXF | 44 | 39 | 29 | 31 | 34 | 31 | 31 | 30 | 28 | 28 |
| PLY | 28 | 18 | 10 | 10 | 10 | 9 | 11 | 11 | 8 | 10 |
| UK | 35 | 26 | 17 | 21 | 22 | 23 | 24 | 22 | 22 | 23 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 26 | 17 | 11 | 13 | 14 | 14 | 19 | 20 | 21 | 27 |
| DUR | 39 | 28 | 24 | 25 | 23 | 21 | 21 | 23 | 25 | 29 |
| ARM | 35 | 32 | 28 | 29 | 31 | 33 | 35 | 37 | 39 | 43 |
| OXF | 42 | 30 | 23 | 25 | 21 | 16 | 17 | 15 | 14 | 15 |
| PLY | 39 | 26 | 20 | 22 | 23 | 21 | 26 | 27 | 27 | 33 |
| UK | 32 | 22 | 15 | 17 | 16 | 15 | 17 | 19 | 19 | 25 |

## Forecast Period 10 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 33 | 21 | 19 | 21 | 22 | 23 | 24 | 24 | 23 | 20 |
| DUR | 40 | 28 | 27 | 31 | 31 | 29 | 28 | 27 | 27 | 25 |
| ARM | 23 | 12 | 10 | 15 | 17 | 19 | 23 | 27 | 30 | 33 |
| OXF | 33 | 25 | 27 | 31 | 31 | 27 | 25 | 21 | 18 | 15 |
| PLY | 20 | 6 | 3 | 4 | 3 | 4 | 6 | 4 | 4 | 5 |
| UK | 29 | 15 | 12 | 16 | 16 | 17 | 20 | 19 | 19 | 18 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 16 | 5 | 3 | 4 | 5 | 7 | 11 | 11 | 16 | 19 |
| DUR | 28 | 11 | 9 | 8 | 5 | 5 | 5 | 6 | 9 | 9 |
| ARM | 31 | 23 | 18 | 20 | 22 | 25 | 28 | 31 | 35 | 37 |
| OXF | 29 | 11 | 6 | 7 | 2 | 2 | 2 | 0 | 1 | 1 |
| PLY | 27 | 11 | 8 | 10 | 10 | 12 | 17 | 17 | 20 | 21 |
| UK | 21 | 7 | 4 | 5 | 3 | 5 | 7 | 7 | 11 | 14 |

## Forecast Period 20 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 30 | 20 | 18 | 18 | 20 | 23 | 26 | 24 | 22 | 19 |
| DUR | 40 | 32 | 29 | 29 | 28 | 27 | 27 | 26 | 24 | 21 |
| ARM | 23 | 16 | 14 | 17 | 21 | 25 | 32 | 37 | 41 | 40 |
| OXF | 32 | 30 | 32 | 33 | 29 | 21 | 12 | 3 | 0 | 0 |
| PLY | 15 | 4 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 |
| UK | 27 | 17 | 13 | 14 | 16 | 17 | 21 | 20 | 19 | 15 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 15 | 6 | 3 | 5 | 6 | 8 | 13 | 13 | 15 | 18 |
| DUR | 25 | 10 | 5 | 3 | 1 | 1 | 1 | 1 | 1 | 3 |
| ARM | 23 | 17 | 15 | 17 | 19 | 23 | 31 | 36 | 37 | 36 |
| OXF | 28 | 12 | 3 | 3 | 1 | 0 | 0 | 0 | 0 | 0 |
| PLY | 26 | 12 | 7 | 11 | 12 | 14 | 20 | 20 | 20 | 21 |
| UK | 18 | 7 | 2 | 3 | 2 | 1 | 4 | 4 | 6 | 10 |

# TABLE V (d) - VALUE OF INDEX - APRIL

## Forecast Period 3 Years

**MEAN MAXIMA** — Averaging Period

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 52 | 49 | 45 | 45 | 48 | 49 | 46 | 47 | 47 | 46 |
| DUR | 50 | 51 | 47 | 48 | 52 | 53 | 52 | 52 | 51 | 49 |
| ARM | 43 | 42 | 36 | 35 | 39 | 41 | 40 | 42 | 42 | 45 |
| OXF | 55 | 42 | 47 | 49 | 53 | 54 | 52 | 52 | 52 | 52 |
| PLY | 35 | 23 | 27 | 26 | 27 | 27 | 24 | 26 | 27 | 26 |
| UK | 45 | 43 | 38 | 39 | 43 | 44 | 42 | 42 | 42 | 41 |

**MEAN MINIMA** — Averaging Period

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 35 | 34 | 27 | 27 | 29 | 29 | 27 | 31 | 31 | 32 |
| DUR | 34 | 34 | 27 | 29 | 32 | 33 | 33 | 36 | 39 | 41 |
| ARM | 37 | 39 | 32 | 33 | 37 | 38 | 37 | 37 | 37 | 38 |
| OXF | 36 | 36 | 27 | 25 | 28 | 30 | 31 | 33 | 35 | 37 |
| PLY | 32 | 32 | 26 | 27 | 29 | 32 | 30 | 30 | 32 | 33 |
| UK | 30 | 31 | 24 | 24 | 24 | 27 | 29 | 30 | 31 | 34 |

## Forecast Period 5 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 48 | 42 | 39 | 39 | 42 | 41 | 41 | 41 | 42 | 41 |
| DUR | 47 | 46 | 41 | 44 | 48 | 48 | 48 | 47 | 47 | 46 |
| ARM | 38 | 34 | 28 | 29 | 33 | 34 | 35 | 36 | 38 | 42 |
| OXF | 52 | 47 | 44 | 46 | 51 | 51 | 49 | 49 | 50 | 50 |
| PLY | 31 | 26 | 20 | 19 | 21 | 18 | 17 | 20 | 22 | 19 |
| UK | 42 | 37 | 33 | 34 | 38 | 40 | 37 | 38 | 38 | 38 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 31 | 27 | 17 | 18 | 20 | 19 | 20 | 25 | 25 | 26 |
| DUR | 33 | 29 | 21 | 24 | 28 | 28 | 29 | 33 | 37 | 39 |
| ARM | 36 | 35 | 27 | 29 | 34 | 33 | 33 | 34 | 35 | 37 |
| OXF | 29 | 26 | 19 | 20 | 24 | 25 | 24 | 25 | 27 | 29 |
| PLY | 29 | 26 | 19 | 20 | 24 | 25 | 24 | 25 | 27 | 29 |
| UK | 28 | 27 | 17 | 19 | 23 | 23 | 24 | 28 | 30 | 32 |

## Forecast Period 10 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 44 | 36 | 33 | 35 | 36 | 36 | 36 | 37 | 37 | 38 |
| DUR | 47 | 43 | 40 | 44 | 45 | 45 | 44 | 44 | 42 | 45 |
| ARM | 36 | 27 | 22 | 26 | 29 | 30 | 32 | 34 | 38 | 45 |
| OXF | 51 | 45 | 42 | 46 | 48 | 46 | 46 | 46 | 46 | 47 |
| PLY | 28 | 19 | 13 | 12 | 11 | 9 | 9 | 12 | 12 | 7 |
| UK | 40 | 32 | 29 | 32 | 33 | 33 | 33 | 33 | 33 | 35 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 27 | 16 | 9 | 11 | 13 | 14 | 18 | 22 | 21 | 22 |
| DUR | 29 | 19 | 14 | 19 | 22 | 22 | 25 | 31 | 35 | 38 |
| ARM | 35 | 28 | 22 | 27 | 29 | 28 | 29 | 31 | 33 | 37 |
| OXF | 33 | 22 | 9 | 12 | 15 | 17 | 21 | 26 | 29 | 35 |
| PLY | 28 | 18 | 14 | 17 | 19 | 19 | 19 | 21 | 23 | 24 |
| UK | 27 | 18 | 11 | 15 | 17 | 18 | 21 | 25 | 28 | 31 |

## Forecast Period 20 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 41 | 35 | 32 | 31 | 32 | 33 | 34 | 35 | 39 | 43 |
| DUR | 47 | 44 | 42 | 42 | 42 | 42 | 41 | 42 | 49 | 52 |
| ARM | 34 | 28 | 26 | 27 | 30 | 33 | 37 | 45 | 57 | 63 |
| OXF | 51 | 47 | 43 | 41 | 41 | 40 | 39 | 41 | 43 | 42 |
| PLY | 22 | 13 | 6 | 2 | 1 | 1 | 2 | 1 | 1 | 0 |
| UK | 37 | 33 | 29 | 27 | 28 | 29 | 28 | 30 | 33 | 34 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 21 | 14 | 11 | 12 | 13 | 19 | 22 | 26 | 26 | 17 |
| DUR | 23 | 20 | 18 | 20 | 23 | 27 | 33 | 41 | 47 | 44 |
| ARM | 32 | 29 | 25 | 25 | 26 | 27 | 30 | 36 | 39 | 37 |
| OXF | 22 | 13 | 7 | 9 | 12 | 14 | 17 | 25 | 31 | 27 |
| PLY | 22 | 17 | 16 | 16 | 16 | 17 | 17 | 20 | 21 | 15 |
| UK | 20 | 16 | 13 | 15 | 18 | 20 | 24 | 30 | 33 | 28 |

# TABLE V (e) - VALUE OF INDEX - MAY

## Forecast Period 3 Years

**MEAN MAXIMA** (Averaging Period)

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 53 | 49 | 48 | 43 | 41 | 41 | 44 | 39 | 32 | 35 |
| DUR | 49 | 49 | 51 | 47 | 43 | 41 | 43 | 38 | 36 | 37 |
| ARM | 37 | 30 | 29 | 28 | 29 | 28 | 31 | 29 | 26 | 28 |
| OXF | 43 | 44 | 44 | 44 | 43 | 41 | 38 | 28 | 30 | 31 |
| PLY | 41 | 38 | 41 | 38 | 34 | 31 | 31 | 31 | 31 | 29 |
| UK | 40 | 37 | 38 | 35 | 32 | 29 | 30 | 23 | 20 | 21 |

**MEAN MINIMA** (Averaging Period)

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 36 | 30 | 27 | 26 | 26 | 27 | 29 | 25 | 28 | 30 |
| DUR | 31 | 25 | 22 | 22 | 23 | 21 | 22 | 21 | 21 | 23 |
| ARM | 25 | 19 | 18 | 16 | 17 | 15 | 16 | 10 | 10 | 11 |
| OXF | 22 | 21 | 21 | 23 | 24 | 20 | 18 | 15 | 16 | 16 |
| PLY | 21 | 19 | 20 | 19 | 20 | 18 | 15 | 8 | 10 | 12 |
| UK | 21 | 17 | 15 | 14 | 15 | 13 | 13 | 8 | 9 | 11 |

## Forecast Period 5 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 48 | 44 | 41 | 33 | 31 | 31 | 32 | 26 | 16 | 20 |
| DUR | 46 | 46 | 46 | 41 | 35 | 33 | 33 | 29 | 26 | 26 |
| ARM | 29 | 21 | 19 | 19 | 20 | 19 | 21 | 18 | 18 | 21 |
| OXF | 39 | 39 | 38 | 38 | 36 | 33 | 24 | 12 | 15 | 17 |
| PLY | 33 | 32 | 34 | 31 | 25 | 21 | 19 | 19 | 24 | 22 |
| UK | 34 | 32 | 31 | 27 | 22 | 19 | 16 | 9 | 7 | 8 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 27 | 20 | 17 | 16 | 15 | 17 | 18 | 15 | 19 | 19 |
| DUR | 24 | 16 | 13 | 14 | 13 | 10 | 12 | 11 | 10 | 13 |
| ARM | 19 | 11 | 9 | 8 | 7 | 5 | 4 | 1 | 1 | 1 |
| OXF | 10 | 11 | 12 | 14 | 14 | 9 | 7 | 4 | 4 | 4 |
| PLY | 17 | 14 | 15 | 14 | 15 | 11 | 5 | 2 | 3 | 3 |
| UK | 13 | 9 | 7 | 6 | 6 | 4 | 3 | 1 | 1 | 1 |

## Forecast Period 10 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 45 | 38 | 30 | 18 | 16 | 16 | 16 | 15 | 10 | 10 |
| DUR | 47 | 45 | 42 | 32 | 25 | 23 | 22 | 24 | 21 | 24 |
| ARM | 23 | 13 | 11 | 10 | 11 | 12 | 13 | 13 | 16 | 19 |
| OXF | 40 | 37 | 37 | 24 | 31 | 22 | 8 | 6 | 8 | 11 |
| PLY | 33 | 33 | 31 | 23 | 17 | 11 | 9 | 14 | 14 | 17 |
| UK | 33 | 29 | 25 | 17 | 13 | 8 | 4 | 4 | 3 | 5 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 23 | 13 | 11 | 9 | 9 | 10 | 10 | 12 | 15 | 15 |
| DUR | 18 | 9 | 6 | 7 | 5 | 3 | 3 | 2 | 2 | 3 |
| ARM | 13 | 6 | 4 | 3 | 2 | 1 | 0 | 0 | 0 | 0 |
| OXF | 11 | 11 | 12 | 14 | 11 | 6 | 3 | 1 | 1 | 1 |
| PLY | 16 | 13 | 12 | 11 | 11 | 5 | 1 | 0 | 0 | 0 |
| UK | 11 | 6 | 4 | 4 | 2 | 1 | 0 | 0 | 0 | 0 |

## Forecast Period 20 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 37 | 21 | 9 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| DUR | 45 | 38 | 28 | 16 | 8 | 9 | 15 | 19 | 22 | 24 |
| ARM | 19 | 9 | 7 | 7 | 7 | 8 | 9 | 12 | 17 | 20 |
| OXF | 41 | 35 | 31 | 26 | 15 | 4 | 2 | 3 | 4 | 3 |
| PLY | 34 | 28 | 19 | 9 | 3 | 1 | 3 | 7 | 6 | 3 |
| UK | 30 | 21 | 12 | 5 | 1 | 0 | 0 | 1 | 1 | 1 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 21 | 12 | 8 | 8 | 9 | 11 | 13 | 14 | 17 | 11 |
| DUR | 16 | 8 | 5 | 5 | 2 | 1 | 1 | 1 | 0 | 1 |
| ARM | 12 | 4 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| OXF | 13 | 13 | 13 | 12 | 6 | 1 | 0 | 0 | 0 | 0 |
| PLY | 16 | 12 | 11 | 10 | 7 | 2 | 0 | 0 | 0 | 0 |
| UK | 9 | 5 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |

## TABLE V (f) - VALUE OF INDEX - JUNE

MEAN MAXIMA / MEAN MINIMA

### Forecast Period 3 Years

**Mean Maxima** — Averaging Period

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 43 | 37 | 38 | 37 | 38 | 38 | 38 | 41 | 37 | 35 |
| DUR | 52 | 49 | 50 | 47 | 44 | 42 | 45 | 47 | 45 | 44 |
| ARM | 47 | 36 | 41 | 37 | 38 | 39 | 40 | 42 | 42 | 41 |
| OXF | 49 | 44 | 44 | 41 | 40 | 41 | 42 | 43 | 43 | 44 |
| PLY | 47 | 38 | 41 | 40 | 35 | 34 | 32 | 33 | 33 | 34 |
| UK | 43 | 35 | 38 | 35 | 33 | 33 | 34 | 36 | 34 | 33 |

**Mean Minima** — Averaging Period

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 20 | 19 | 18 | 17 | 18 | 19 | 20 | 22 | 23 | 23 |
| DUR | 15 | 15 | 16 | 18 | 20 | 22 | 22 | 22 | 21. | 20 |
| ARM | 24 | 19 | 18 | 19 | 20 | 20 | 19 | 22 | 21 | 19 |
| OXF | 17 | 15 | 13 | 14 | 14 | 15 | 15 | 16 | 18 | 17 |
| PLY | 19 | 12 | 13 | 14 | 15 | 15 | 13 | 13 | 12 | 12 |
| UK | 13 | 11 | 11 | 12 | 13 | 14 | 13 | 15 | 15 | 14 |

### Forecast Period 5 Years

**Mean Maxima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 34 | 28 | 29 | 27 | 27 | 29 | 29 | 31 | 25 | 23 |
| DUR | 48 | 45 | 45 | 39 | 33 | 34 | 38 | 39 | 35 | 33 |
| ARM | 39 | 29 | 31 | 28 | 28 | 29 | 31 | 33 | 30 | 29 |
| OXF | 42 | 36 | 33 | 29 | 26 | 28 | 31 | 30 | 30 | 31 |
| PLY | 39 | 30 | 35 | 30 | 21 | 20 | 15 | 15 | 15 | 17 |
| UK | 36 | 27 | 29 | 24 | 20 | 21 | 24 | 25 | 20 | 19 |

**Mean Minima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 12 | 11 | 10 | 10 | 10 | 12 | 14 | 16 | 18 | 18 |
| DUR | 12 | 11 | 12 | 15 | 17 | 19 | 19 | 18 | 16 | 15 |
| ARM | 19 | 12 | 10 | 12 | 12 | 13 | 12 | 14 | 13 | 11 |
| OXF | 13 | 10 | 8 | 9 | 9 | 11 | 11 | 12 | 11 | 11 |
| PLY | 13 | 6 | 7 | 8 | 8 | 8 | 5 | 5 | 4 | 2 |
| UK | 8 | 6 | 5 | 7 | 7 | 9 | 8 | 9 | 8 | 6 |

### Forecast Period 10 Years

**Mean Maxima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 26 | 22 | 20 | 18 | 19 | 19 | 20 | 16 | 10 | 10 |
| DUR | 44 | 40 | 37 | 27 | 20 | 23 | 27 | 24 | 17 | 15 |
| ARM | 29 | 20 | 21 | 17 | 17 | 17 | 19 | 17 | 14 | 12 |
| OXF | 35 | 26 | 22 | 14 | 13 | 15 | 16 | 15 | 15 | 14 |
| PLY | 33 | 29 | 29 | 18 | 9 | 3 | 2 | 1 | 1 | 1 |
| UK | 27 | 20 | 19 | 11 | 7 | 8 | 9 | 7 | 2 | 2 |

**Mean Minima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 10 | 8 | 7 | 7 | 7 | 9 | 11 | 11 | 13 | 11 |
| DUR | 12 | 10 | 12 | 14 | 16 | 18 | 17 | 14 | 7 | 4 |
| ARM | 8 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 2 | 1 |
| OXF | 9 | 5 | 5 | 5 | 6 | 8 | 8 | 5 | 2 | 1 |
| PLY | 6 | 3 | 4 | 4 | 4 | 2 | 1 | 1 | 0 | 0 |
| UK | 5 | 3 | 4 | 4 | 5 | 5 | 5 | 3 | 1 | 0 |

### Forecast Period 20 Years

**Mean Maxima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 26 | 19 | 15 | 13 | 14 | 11 | 6 | 3 | 1 | 1 |
| DUR | 41 | 33 | 28 | 19 | 16 | 16 | 13 | 9 | 4 | 2 |
| ARM | 30 | 20 | 19 | 16 | 15 | 14 | 12 | 8 | 5 | 3 |
| OXF | 29 | 19 | 16 | 12 | 12 | 11 | 11 | 10 | 8 | 4 |
| PLY | 40 | 32 | 26 | 12 | 4 | 1 | 0 | 0 | 0 | 1 |
| UK | 25 | 16 | 13 | 7 | 5 | 3 | 1 | 0 | 0 | 0 |

**Mean Minima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 10 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 3 |
| DUR | 15 | 14 | 16 | 17 | 18 | 17 | 14 | 8 | 1 | 0 |
| ARM | 8 | 3 | 3 | 3 | 3 | 2 | 0 | 0 | 0 | 0 |
| OXF | 9 | 6 | 6 | 7 | 8 | 4 | 1 | 0 | 0 | 0 |
| PLY | 9 | 6 | 6 | 4 | 3 | 1 | 0 | 0 | 0 | 0 |
| UK | 7 | 5 | 5 | 5 | 5 | 4 | 1 | 0 | 0 | 0 |

# TABLE V (g) - VALUE OF INDEX - JULY

## Forecast Period 3 Years

**MEAN MAXIMA** — Averaging Period

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 48 | 41 | 42 | 40 | 38 | 39 | 41 | 43 | 42 | 42 |
| DUR | 48 | 43 | 45 | 44 | 44 | 43 | 42 | 40 | 41 | 39 |
| ARM | 35 | 27 | 26 | 23 | 22 | 23 | 24 | 24 | 26 | 27 |
| OXF | 56 | 53 | 53 | 49 | 46 | 45 | 45 | 44 | 45 | 44 |
| PLY | 48 | 42 | 37 | 37 | 34 | 35 | 37 | 38 | 39 | 37 |
| UK | 43 | 36 | 35 | 32 | 31 | 31 | 32 | 32 | 33 | 32 |

**MEAN MINIMA** — Averaging Period

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 30 | 28 | 30 | 32 | 36 | 39 | 42 | 45 | 42 | 40 |
| DUR | 29 | 28 | 29 | 25 | 23 | 25 | 26 | 26 | 25 | 25 |
| ARM | 25 | 22 | 24 | 19 | 16 | 18 | 21 | 23 | 21 | 18 |
| OXF | 23 | 19 | 19 | 16 | 13 | 13 | 13 | 13 | 13 | 13 |
| PLY | 19 | 15 | 15 | 15 | 13 | 13 | 15 | 17 | 14 | 15 |
| UK | 19 | 16 | 17 | 15 | 14 | 17 | 19 | 21 | 19 | 18 |

## Forecast Period 5 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 43 | 34 | 35 | 31 | 31 | 31 | 34 | 36 | 35 | 32 |
| DUR | 44 | 37 | 37 | 38 | 38 | 36 | 35 | 33 | 34 | 30 |
| ARM | 27 | 18 | 15 | 12 | 11 | 12 | 12 | 12 | 14 | 13 |
| OXF | 52 | 47 | 44 | 37 | 34 | 34 | 31 | 31 | 31 | 29 |
| PLY | 40 | 30 | 24 | 22 | 17 | 21 | 22 | 25 | 26 | 27 |
| UK | 37 | 28 | 25 | 21 | 18 | 19 | 19 | 21 | 21 | 19 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 26 | 23 | 27 | 30 | 35 | 39 | 41 | 44 | 41 | 35 |
| DUR | 27 | 23 | 24 | 19 | 18 | 20 | 20 | 21 | 20 | 18 |
| ARM | 20 | 18 | 18 | 13 | 11 | 12 | 16 | 18 | 15 | 9 |
| OXF | 19 | 13 | 12 | 9 | 7 | 8 | 7 | 8 | 8 | 6 |
| PLY | 13 | 8 | 8 | 7 | 7 | 8 | 10 | 12 | 9 | 9 |
| UK | 16 | 12 | 13 | 11 | 11 | 13 | 16 | 18 | 16 | 12 |

## Forecast Period 10 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 34 | 26 | 23 | 18 | 17 | 19 | 22 | 24 | 20 | 17 |
| DUR | 40 | 33 | 34 | 36 | 34 | 31 | 28 | 27 | 25 | 23 |
| ARM | 18 | 7 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| OXF | 48 | 43 | 35 | 27 | 24 | 22 | 20 | 20 | 16 | 15 |
| PLY | 33 | 17 | 13 | 9 | 8 | 10 | 12 | 15 | 17 | 16 |
| UK | 28 | 18 | 13 | 9 | 7 | 7 | 7 | 8 | 6 | 5 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 23 | 23 | 27 | 32 | 37 | 41 | 43 | 43 | 38 | 31 |
| DUR | 21 | 17 | 15 | 14 | 11 | 11 | 11 | 12 | 10 | 6 |
| ARM | 20 | 16 | 13 | 7 | 6 | 9 | 12 | 14 | 8 | 3 |
| OXF | 14 | 9 | 6 | 3 | 3 | 3 | 2 | 3 | 1 | 1 |
| PLY | 8 | 4 | 3 | 3 | 3 | 5 | 7 | 7 | 4 | 3 |
| UK | 11 | 9 | 8 | 7 | 8 | 10 | 13 | 14 | 10 | 5 |

## Forecast Period 20 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 27 | 11 | 5 | 4 | 4 | 5 | 4 | 2 | 1 | 1 |
| DUR | 41 | 34 | 34 | 33 | 28 | 23 | 17 | 13 | 10 | 9 |
| ARM | 12 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OXF | 47 | 37 | 26 | 19 | 15 | 12 | 9 | 8 | 8 | 8 |
| PLY | 28 | 10 | 4 | 4 | 3 | 4 | 5 | 8 | 9 | 4 |
| UK | 29 | 9 | 4 | 2 | 1 | 1 | 0 | 0 | 0 | 0 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 30 | 31 | 34 | 38 | 42 | 43 | 42 | 39 | 31 | 20 |
| DUR | 18 | 11 | 8 | 6 | 5 | 4 | 3 | 3 | 2 | 1 |
| ARM | 16 | 9 | 5 | 3 | 5 | 6 | 7 | 5 | 2 | 1 |
| OXF | 14 | 7 | 3 | 2 | 2 | 1 | 1 | 0 | 0 | 0 |
| PLY | 6 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 0 | 0 |
| UK | 11 | 7 | 5 | 6 | 7 | 8 | 9 | 7 | 4 | 2 |

# TABLE V (h) - VALUE OF INDEX - AUGUST

## Forecast Period 3 Years

| | MEAN MAXIMA — Averaging Period | | | | | | | | | | MEAN MINIMA — Averaging Period | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 46 | 43 | 42 | 40 | 42 | 44 | 44 | 41 | 41 | 43 | 26 | 27 | 25 | 25 | 27 | 30 | 29 | 29 | 30 | 30 |
| DUR | 48 | 44 | 43 | 41 | 41 | 42 | 42 | 40 | 39 | 40 | 26 | 23 | 22 | 20 | 21 | 22 | 20 | 17 | 17 | 21 |
| ARM | 45 | 40 | 42 | 39 | 41 | 40 | 38 | 35 | 37 | 40 | 21 | 11 | 12 | 11 | 11 | 13 | 8 | 8 | 9 | 10 |
| OXF | 50 | 49 | 49 | 48 | 49 | 50 | 50 | 49 | 50 | 51 | 21 | 19 | 16 | 14 | 16 | 16 | 13 | 12 | 12 | 14 |
| PLY | 42 | 35 | 33 | 31 | 30 | 29 | 30 | 29 | 31 | 32 | 23 | 19 | 17 | 15 | 17 | 16 | 15 | 11 | 7 | 7 |
| UK | 42 | 36 | 36 | 33 | 35 | 36 | 35 | 33 | 34 | 35 | 19 | 15 | 14 | 12 | 14 | 15 | 13 | 11 | 11 | 13 |

## Forecast Period 5 Years

| | MEAN MAXIMA | | | | | | | | | | MEAN MINIMA | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 42 | 35 | 35 | 33 | 35 | 38 | 37 | 33 | 34 | 35 | 24 | 23 | 20 | 19 | 23 | 27 | 25 | 26 | 27 | 25 |
| DUR | 43 | 37 | 35 | 31 | 31 | 33 | 33 | 29 | 30 | 29 | 21 | 16 | 14 | 11 | 13 | 15 | 14 | 10 | 12 | 15 |
| ARM | 38 | 32 | 33 | 30 | 32 | 30 | 26 | 23 | 27 | 32 | 11 | 3 | 3 | 3 | 4 | 6 | 4 | 5 | 5 | 6 |
| OXF | 45 | 42 | 41 | 42 | 44 | 45 | 45 | 44 | 46 | 45 | 16 | 12 | 7 | 6 | 8 | 9 | 7 | 5 | 7 | 8 |
| PLY | 35 | 24 | 21 | 19 | 17 | 18 | 19 | 17 | 19 | 21 | 15 | 10 | 8 | 7 | 8 | 8 | 7 | 4 | 3 | 3 |
| UK | 36 | 28 | 27 | 25 | 28 | 29 | 29 | 25 | 27 | 27 | 13 | 9 | 7 | 5 | 8 | 10 | 8 | 7 | 9 | 9 |

## Forecast Period 10 Years

| | MEAN MAXIMA | | | | | | | | | | MEAN MINIMA | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 33 | 25 | 24 | 25 | 28 | 29 | 26 | 25 | 24 | 17 | 21 | 17 | 14 | 16 | 21 | 23 | 24 | 26 | 24 | 17 |
| DUR | 37 | 27 | 25 | 23 | 24 | 25 | 23 | 20 | 19 | 14 | 15 | 8 | 5 | 5 | 7 | 7 | 5 | 4 | 6 | 5 |
| ARM | 33 | 26 | 24 | 23 | 22 | 16 | 15 | 17 | 22 | 23 | 5 | 1 | 1 | 1 | 2 | 3 | 3 | 4 | 5 | 4 |
| OXF | 42 | 37 | 37 | 39 | 41 | 41 | 40 | 40 | 41 | 36 | 12 | 5 | 2 | 2 | 3 | 2 | 2 | 3 | 4 | 3 |
| PLY | 25 | 9 | 7 | 6 | 7 | 7 | 7 | 8 | 9 | 12 | 9 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 1 |
| UK | 28 | 19 | 18 | 19 | 22 | 21 | 20 | 19 | 19 | 16 | 7 | 3 | 2 | 2 | 4 | 4 | 5 | 6 | 6 | 4 |

## Forecast Period 20 Years

| | MEAN MAXIMA | | | | | | | | | | MEAN MINIMA | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 30 | 23 | 23 | 23 | 20 | 17 | 15 | 15 | 12 | 5 | 18 | 16 | 17 | 20 | 24 | 26 | 25 | 24 | 18 | 10 |
| DUR | 34 | 25 | 24 | 22 | 19 | 17 | 14 | 13 | 11 | 5 | 9 | 4 | 3 | 3 | 3 | 2 | 1 | 1 | 1 | 1 |
| ARM | 31 | 23 | 18 | 12 | 9 | 8 | 11 | 16 | 18 | 14 | 5 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 3 | 2 |
| OXF | 43 | 40 | 39 | 38 | 36 | 34 | 35 | 37 | 36 | 26 | 7 | 3 | 1 | 1 | 1 | 1 | 2 | 3 | 3 | 1 |
| PLY | 20 | 5 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 4 | 7 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| UK | 27 | 19 | 17 | 16 | 14 | 12 | 12 | 13 | 13 | 7 | 5 | 2 | 2 | 2 | 3 | 3 | 3 | 5 | 4 | 2 |

# TABLE V (i) - VALUE OF INDEX - SEPTEMBER

## Forecast Period 3 Years

**MEAN MAXIMA**

| | Averaging Period | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 35 | 27 | 27 | 29 | 29 | 29 | 30 | 28 | 22 | 22 |
| DUR | 40 | 34 | 33 | 31 | 32 | 32 | 34 | 35 | 33 | 34 |
| ARM | 32 | 27 | 27 | 26 | 26 | 27 | 28 | 28 | 27 | 29 |
| OXF | 46 | 40 | 38 | 37 | 38 | 38 | 39 | 40 | 40 | 36 |
| PLY | 39 | 30 | 30 | 27 | 28 | 28 | 30 | 30 | 32 | 29 |
| UK | 34 | 26 | 25 | 24 | 24 | 24 | 25 | 25 | 23 | 23 |

**MEAN MINIMA**

| | Averaging Period | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 29 | 25 | 25 | 25 | 28 | 30 | 31 | 33 | 38 | 37 |
| DUR | 30 | 20 | 22 | 22 | 25 | 27 | 27 | 29 | 31 | 35 |
| ARM | 30 | 20 | 18 | 17 | 19 | 21 | 21 | 22 | 24 | 27 |
| OXF | 30 | 21 | 20 | 21 | 24 | 27 | 29 | 32 | 35 | 38 |
| PLY | 33 | 25 | 24 | 24 | 27 | 29 | 30 | 32 | 34 | 34 |
| UK | 24 | 15 | 15 | 15 | 18 | 20 | 22 | 25 | 28 | 31 |

## Forecast Period 5 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 23 | 16 | 17 | 19 | 21 | 20 | 20 | 17 | 10 | 9 |
| DUR | 28 | 23 | 21 | 19 | 22 | 22 | 24 | 24 | 23 | 24 |
| ARM | 21 | 14 | 16 | 15 | 15 | 15 | 14 | 14 | 14 | 17 |
| OXF | 23 | 27 | 23 | 22 | 25 | 24 | 24 | 25 | 24 | 24 |
| PLY | 26 | 14 | 14 | 11 | 13 | 12 | 14 | 15 | 14 | 14 |
| UK | 21 | 13 | 11 | 10 | 12 | 11 | 11 | 10 | 8 | 9 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 19 | 16 | 17 | 19 | 21 | 23 | 26 | 30 | 34 | 33 |
| DUR | 24 | 14 | 17 | 17 | 21 | 21 | 22 | 24 | 27 | 31 |
| ARM | 20 | 11 | 11 | 9 | 12 | 13 | 14 | 16 | 19 | 22 |
| OXF | 25 | 13 | 14 | 15 | 18 | 21 | 23 | 27 | 31 | 34 |
| PLY | 29 | 19 | 18 | 17 | 20 | 22 | 23 | 25 | 27 | 25 |
| UK | 15 | 8 | 9 | 9 | 12 | 14 | 16 | 19 | 23 | 25 |

## Forecast Period 10 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 16 | 11 | 14 | 15 | 17 | 17 | 14 | 7 | 2 | 1 |
| DUR | 23 | 16 | 13 | 14 | 15 | 17 | 18 | 17 | 14 | 15 |
| ARM | 14 | 10 | 9 | 8 | 8 | 7 | 6 | 4 | 1 | 3 |
| OXF | 27 | 16 | 13 | 14 | 15 | 14 | 14 | 14 | 13 | 10 |
| PLY | 13 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 |
| UK | 13 | 5 | 4 | 4 | 4 | 3 | 3 | 1 | 0 | 1 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 14 | 12 | 13 | 16 | 18 | 21 | 25 | 30 | 32 | 28 |
| DUR | 12 | 8 | 10 | 13 | 15 | 15 | 15 | 14 | 10 | 11 |
| ARM | 9 | 4 | 3 | 4 | 5 | 7 | 8 | 9 | 12 | 15 |
| OXF | 11 | 3 | 5 | 7 | 10 | 13 | 16 | 20 | 24 | 23 |
| PLY | 16 | 7 | 5 | 6 | 8 | 9 | 11 | 13 | 13 | 5 |
| UK | 7 | 3 | 3 | 6 | 7 | 9 | 11 | 12 | 14 | 12 |

## Forecast Period 20 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 18 | 15 | 16 | 18 | 18 | 13 | 8 | 3 | 0 | 0 |
| DUR | 21 | 16 | 16 | 16 | 17 | 17 | 17 | 15 | 11 | 7 |
| ARM | 16 | 10 | 8 | 6 | 5 | 4 | 2 | 0 | 0 | 0 |
| OXF | 23 | 16 | 13 | 13 | 12 | 10 | 9 | 9 | 8 | 3 |
| PLY | 9 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| UK | 11 | 5 | 3 | 3 | 2 | 1 | 0 | 0 | 0 | 0 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 13 | 13 | 15 | 19 | 22 | 27 | 32 | 36 | 35 | 20 |
| DUR | 17 | 13 | 15 | 17 | 17 | 18 | 17 | 12 | 6 | 4 |
| ARM | 10 | 5 | 5 | 5 | 6 | 7 | 8 | 10 | 15 | 15 |
| OXF | 13 | 7 | 10 | 13 | 17 | 21 | 25 | 30 | 36 | 31 |
| PLY | 13 | 6 | 5 | 6 | 8 | 8 | 9 | 10 | 9 | 4 |
| UK | 9 | 6 | 7 | 9 | 11 | 12 | 13 | 14 | 17 | 11 |

# TABLE V (j) - VALUE OF INDEX - OCTOBER

## Forecast Period 3 Years

**MEAN MAXIMA**

| | Averaging Period | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 43 | 39 | 39 | 40 | 40 | 40 | 39 | 36 | 38 | 40 |
| DUR | 43 | 36 | 35 | 33 | 34 | 34 | 37 | 36 | 39 | 43 |
| ARM | 36 | 28 | 30 | 27 | 29 | 28 | 29 | 27 | 30 | 34 |
| OXF | 45 | 39 | 38 | 36 | 36 | 36 | 38 | 33 | 35 | 37 |
| PLY | 36 | 31 | 31 | 26 | 26 | 24 | 25 | 18 | 16 | 16 |
| UK | 36 | 29 | 29 | 27 | 27 | 26 | 27 | 23 | 26 | 30 |

**MEAN MINIMA**

| | Averaging Period | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 29 | 24 | 19 | 21 | 24 | 27 | 32 | 32 | 40 | 46 |
| DUR | 43 | 37 | 37 | 37 | 36 | 35 | 35 | 37 | 41 | 47 |
| ARM | 43 | 38 | 37 | 36 | 36 | 36 | 38 | 37 | 41 | 45 |
| OXF | 49 | 44 | 45 | 45 | 43 | 41 | 42 | 41 | 44 | 47 |
| PLY | 42 | 38 | 40 | 35 | 35 | 32 | 33 | 34 | 37 | 40 |
| UK | 34 | 29 | 29 | 29 | 28 | 27 | 29 | 31 | 37 | 43 |

## Forecast Period 5 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 33 | 27 | 29 | 31 | 32 | 33 | 33 | 32 | 34 | 38 |
| DUR | 32 | 22 | 22 | 20 | 21 | 24 | 27 | 28 | 33 | 40 |
| ARM | 24 | 15 | 17 | 15 | 17 | 16 | 19 | 19 | 23 | 29 |
| OXF | 35 | 25 | 25 | 21 | 21 | 23 | 25 | 22 | 24 | 29 |
| PLY | 27 | 20 | 21 | 14 | 13 | 11 | 12 | 8 | 5 | 6 |
| UK | 25 | 17 | 17 | 16 | 16 | 16 | 18 | 16 | 20 | 26 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 21 | 13 | 10 | 13 | 17 | 23 | 29 | 31 | 42 | 50 |
| DUR | 35 | 29 | 31 | 31 | 28 | 28 | 29 | 33 | 40 | 48 |
| ARM | 33 | 27 | 27 | 25 | 25 | 27 | 31 | 31 | 37 | 45 |
| OXF | 41 | 35 | 37 | 37 | 33 | 31 | 32 | 34 | 38 | 42 |
| PLY | 33 | 27 | 28 | 23 | 22 | 20 | 22 | 26 | 31 | 44 |
| UK | 23 | 18 | 20 | 19 | 18 | 19 | 23 | 27 | 35 | 43 |

## Forecast Period 10 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 26 | 23 | 28 | 30 | 30 | 30 | 29 | 30 | 31 | 39 |
| DUR | 16 | 9 | 9 | 8 | 11 | 15 | 18 | 22 | 30 | 44 |
| ARM | 10 | 7 | 8 | 7 | 7 | 7 | 9 | 9 | 13 | 19 |
| OXF | 20 | 12 | 9 | 6 | 6 | 7 | 9 | 4 | 8 | 15 |
| PLY | 18 | 13 | 11 | 6 | 4 | 3 | 2 | 0 | 0 | 0 |
| UK | 15 | 10 | 11 | 9 | 8 | 9 | 9 | 7 | 9 | 12 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 12 | 5 | 3 | 6 | 12 | 15 | 22 | 33 | 48 | 64 |
| DUR | 25 | 23 | 25 | 23 | 20 | 21 | 26 | 33 | 44 | 61 |
| ARM | 24 | 20 | 21 | 19 | 19 | 21 | 23 | 26 | 38 | 57 |
| OXF | 30 | 29 | 30 | 27 | 21 | 20 | 24 | 28 | 34 | 39 |
| PLY | 21 | 19 | 18 | 13 | 8 | 4 | 8 | 14 | 23 | 26 |
| UK | 14 | 12 | 14 | 11 | 9 | 10 | 14 | 19 | 30 | 44 |

## Forecast Period 20 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 34 | 32 | 34 | 33 | 30 | 28 | 27 | 29 | 36 | 56 |
| DUR | 18 | 11 | 12 | 12 | 15 | 19 | 23 | 33 | 54 | 76 |
| ARM | 14 | 11 | 11 | 9 | 8 | 7 | 8 | 10 | 13 | 37 |
| OXF | 20 | 11 | 8 | 4 | 3 | 2 | 3 | 1 | 3 | 16 |
| PLY | 20 | 15 | 11 | 5 | 2 | 0 | 0 | 0 | 0 | 0 |
| UK | 19 | 13 | 14 | 11 | 8 | 6 | 5 | 6 | 5 | 17 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 14 | 8 | 8 | 12 | 20 | 30 | 42 | 56 | 80 | 92 |
| DUR | 29 | 25 | 25 | 24 | 24 | 28 | 33 | 43 | 65 | 92 |
| ARM | 28 | 26 | 27 | 26 | 24 | 24 | 29 | 45 | 79 | 91 |
| OXF | 34 | 29 | 24 | 18 | 15 | 16 | 20 | 23 | 25 | 30 |
| PLY | 28 | 23 | 19 | 11 | 6 | 5 | 13 | 21 | 29 | 29 |
| UK | 18 | 16 | 16 | 12 | 10 | 12 | 17 | 25 | 41 | 73 |

## TABLE V (k) - VALUE OF INDEX - NOVEMBER

MEAN MAXIMA | MEAN MINIMA

### Forecast Period 3 Years

| Averaging Period (Mean Maxima) | | | | | | | | | | | Averaging Period (Mean Minima) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 38 | 36 | 37 | 34 | 35 | 31 | 32 | 29 | 27 | 29 | GOR | 34 | 27 | 28 | 28 | 28 | 24 | 24 | 22 | 22 | 20 |
| 33 | 31 | 32 | 32 | 34 | 33 | 33 | 29 | 23 | 23 | DUR | 37 | 37 | 39 | 40 | 43 | 43 | 44 | 40 | 37 | 37 |
| 32 | 25 | 28 | 27 | 29 | 29 | 30 | 29 | 29 | 29 | ARM | 43 | 39 | 40 | 38 | 39 | 37 | 37 | 36 | 36 | 38 |
| 44 | 38 | 38 | 39 | 39 | 39 | 39 | 37 | 37 | 33 | OXF | 43 | 39 | 39 | 40 | 41 | 40 | 41 | 35 | 33 | 34 |
| 34 | 25 | 28 | 27 | 28 | 28 | 28 | 27 | 24 | 22 | PLY | 44 | 40 | 41 | 43 | 44 | 46 | 47 | 48 | 48 | 47 |
| 32 | 26 | 28 | 27 | 28 | 28 | 28 | 25 | 23 | 22 | UK | 35 | 31 | 32 | 33 | 34 | 34 | 34 | 32 | 31 | 31 |

### Forecast Period 5 Years

| 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | 29 | 28 | 26 | 27 | 26 | 27 | 23 | 21 | 22 | GOR | 23 | 19 | 17 | 18 | 17 | 14 | 14 | 12 | 13 | 9 |
| 25 | 24 | 23 | 25 | 27 | 28 | 28 | 23 | 19 | 18 | DUR | 30 | 30 | 32 | 35 | 38 | 39 | 39 | 34 | 31 | 30 |
| 24 | 17 | 18 | 19 | 22 | 23 | 24 | 23 | 23 | 23 | ARM | 35 | 31 | 28 | 28 | 29 | 28 | 29 | 28 | 28 | 30 |
| 36 | 28 | 27 | 29 | 30 | 31 | 31 | 28 | 26 | 22 | OXF | 32 | 26 | 27 | 29 | 31 | 32 | 32 | 22 | 22 | 21 |
| 25 | 14 | 16 | 17 | 18 | 18 | 17 | 16 | 14 | 12 | PLY | 34 | 29 | 31 | 33 | 37 | 39 | 41 | 42 | 43 | 41 |
| 23 | 17 | 17 | 18 | 21 | 21 | 21 | 17 | 16 | 15 | UK | 24 | 21 | 21 | 23 | 26 | 26 | 27 | 24 | 23 | 22 |

### Forecast Period 10 Years

| 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 29 | 25 | 21 | 20 | 20 | 19 | 17 | 12 | 12 | 12 | GOR | 19 | 13 | 11 | 11 | 9 | 7 | 6 | 5 | 4 | 2 |
| 23 | 21 | 21 | 23 | 25 | 25 | 22 | 16 | 15 | 14 | DUR | 31 | 31 | 32 | 35 | 37 | 38 | 35 | 29 | 29 | 27 |
| 18 | 12 | 12 | 14 | 15 | 15 | 15 | 14 | 14 | 16 | ARM | 31 | 25 | 21 | 21 | 21 | 21 | 20 | 19 | 21 | 21 |
| 27 | 19 | 19 | 21 | 22 | 22 | 20 | 19 | 17 | 12 | OXF | 27 | 22 | 23 | 26 | 27 | 27 | 22 | 16 | 13 | 10 |
| 12 | 6 | 8 | 9 | 9 | 8 | 6 | 4 | 4 | 4 | PLY | 30 | 25 | 27 | 31 | 33 | 36 | 37 | 39 | 42 | 37 |
| 16 | 12 | 12 | 14 | 15 | 14 | 12 | 9 | 8 | 8 | UK | 21 | 17 | 18 | 21 | 22 | 23 | 22 | 19 | 19 | 17 |

### Forecast Period 20 Years

| 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | 14 | 14 | 14 | 11 | 6 | 3 | 1 | 0 | 0 | GOR | 16 | 11 | 10 | 9 | 5 | 2 | 1 | 0 | 0 | 0 |
| 26 | 24 | 24 | 24 | 22 | 18 | 15 | 12 | 11 | 9 | DUR | 34 | 33 | 33 | 34 | 33 | 29 | 27 | 27 | 28 | 24 |
| 16 | 11 | 10 | 9 | 9 | 8 | 7 | 7 | 7 | 7 | ARM | 22 | 14 | 12 | 13 | 11 | 9 | 9 | 9 | 7 | 6 |
| 29 | 22 | 21 | 21 | 19 | 18 | 17 | 18 | 16 | 9 | OXF | 31 | 27 | 28 | 28 | 26 | 23 | 21 | 13 | 9 | 5 |
| 17 | 10 | 9 | 8 | 6 | 4 | 3 | 2 | 3 | 2 | PLY | 33 | 31 | 32 | 34 | 36 | 39 | 44 | 50 | 52 | 44 |
| 18 | 13 | 13 | 13 | 11 | 8 | 6 | 3 | 3 | 2 | UK | 23 | 20 | 21 | 22 | 21 | 19 | 19 | 17 | 16 | 11 |

## TABLE V (1) - VALUE OF INDEX - DECEMBER

MEAN MAXIMA / MEAN MINIMA

### Forecast Period 3 Years

**Mean Maxima** — Averaging Period

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 48 | 42 | 40 | 40 | 39 | 39 | 38 | 40 | 39 | 38 |
| DUR | 52 | 48 | 45 | 43 | 44 | 43 | 43 | 42 | 42 | 44 |
| ARM | 47 | 40 | 38 | 36 | 35 | 36 | 35 | 36 | 36 | 37 |
| OXF | 59 | 55 | 53 | 51 | 52 | 49 | 49 | 48 | 47 | 49 |
| PLY | 46 | 43 | 40 | 39 | 39 | 37 | 37 | 39 | 37 | 37 |
| UK | 48 | 43 | 40 | 39 | 38 | 37 | 37 | 38 | 37 | 38 |

**Mean Minima** — Averaging Period

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 48 | 41 | 40 | 41 | 40 | 41 | 41 | 43 | 43 | 41 |
| DUR | 48 | 48 | 46 | 44 | 45 | 44 | 44 | 44 | 45 | 48 |
| ARM | 51 | 47 | 46 | 45 | 42 | 44 | 44 | 46 | 46 | 46 |
| OXF | 59 | 55 | 53 | 52 | 53 | 49 | 49 | 48 | 48 | 49 |
| PLY | 52 | 49 | 45 | 44 | 45 | 41 | 40 | 40 | 40 | 43 |
| UK | 48 | 44 | 41 | 40 | 40 | 39 | 39 | 39 | 40 | 41 |

### Forecast Period 5 Years

**Mean Maxima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 43 | 31 | 29 | 28 | 28 | 28 | 27 | 28 | 28 | 26 |
| DUR | 47 | 40 | 35 | 33 | 34 | 32 | 32 | 30 | 31 | 33 |
| ARM | 43 | 31 | 28 | 26 | 25 | 26 | 26 | 25 | 26 | 26 |
| OXF | 55 | 47 | 42 | 41 | 42 | 36 | 35 | 31 | 32 | 35 |
| PLY | 42 | 35 | 30 | 29 | 29 | 25 | 26 | 26 | 25 | 27 |
| UK | 43 | 32 | 28 | 27 | 27 | 25 | 25 | 23 | 23 | 25 |

**Mean Minima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 42 | 30 | 28 | 29 | 28 | 31 | 31 | 32 | 33 | 28 |
| DUR | 47 | 44 | 40 | 38 | 39 | 37 | 37 | 37 | 39 | 41 |
| ARM | 49 | 40 | 39 | 37 | 35 | 37 | 37 | 38 | 39 | 37 |
| OXF | 56 | 49 | 44 | 44 | 45 | 38 | 37 | 35 | 35 | 37 |
| PLY | 49 | 43 | 37 | 35 | 37 | 29 | 30 | 28 | 31 | 33 |
| UK | 45 | 36 | 33 | 31 | 31 | 29 | 29 | 29 | 31 | 31 |

### Forecast Period 10 Years

**Mean Maxima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 26 | 5 | 6 | 4 | 3 | 3 | 3 | 4 | 3 | 5 |
| DUR | 37 | 21 | 15 | 14 | 12 | 11 | 9 | 10 | 12 | 17 |
| ARM | 30 | 10 | 8 | 4 | 3 | 4 | 5 | 5 | 5 | 7 |
| OXF | 47 | 33 | 28 | 28 | 25 | 18 | 14 | 12 | 14 | 18 |
| PLY | 34 | 21 | 17 | 16 | 13 | 11 | 11 | 11 | 9 | 9 |
| UK | 31 | 13 | 11 | 9 | 6 | 5 | 5 | 5 | 6 | 9 |

**Mean Minima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 27 | 6 | 8 | 7 | 7 | 9 | 9 | 11 | 11 | 8 |
| DUR | 41 | 30 | 25 | 24 | 23 | 21 | 19 | 21 | 24 | 28 |
| ARM | 38 | 21 | 20 | 13 | 11 | 15 | 17 | 18 | 17 | 18 |
| OXF | 49 | 35 | 30 | 30 | 26 | 19 | 15 | 14 | 15 | 18 |
| PLY | 44 | 31 | 22 | 21 | 17 | 13 | 12 | 12 | 17 | 19 |
| UK | 34 | 18 | 15 | 12 | 10 | 9 | 9 | 11 | 13 | 15 |

### Forecast Period 20 Years

**Mean Maxima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 18 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| DUR | 29 | 13 | 7 | 3 | 2 | 1 | 1 | 1 | 3 | 4 |
| ARM | 23 | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| OXF | 42 | 29 | 20 | 16 | 9 | 1 | 0 | 0 | 0 | 1 |
| PLY | 28 | 15 | 8 | 6 | 4 | 2 | 1 | 0 | 0 | 0 |
| UK | 22 | 7 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

**Mean Minima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 16 | 2 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 0 |
| DUR | 27 | 19 | 13 | 7 | 4 | 1 | 2 | 4 | 8 | 9 |
| ARM | 28 | 8 | 6 | 2 | 3 | 4 | 5 | 3 | 4 | 4 |
| OXF | 44 | 33 | 25 | 20 | 13 | 4 | 1 | 0 | 0 | 0 |
| PLY | 39 | 25 | 14 | 9 | 5 | 1 | 2 | 2 | 5 | 7 |
| UK | 23 | 9 | 5 | 2 | 1 | 0 | 0 | 0 | 1 | 1 |

## TABLE V (m) -- VALUE OF INDEX -- WINTER

MEAN MAXIMA / MEAN MINIMA

### Forecast Period 3 Years

| | Mean Maxima – Averaging Period | | | | | | | | | | Mean Minima – Averaging Period | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 52 | 45 | 43 | 44 | 43 | 44 | 46 | 47 | 47 | 47 | 50 | 45 | 45 | 47 | 48 | 50 | 51 | 51 | 50 | 50 |
| DUR | 56 | 52 | 49 | 51 | 49 | 50 | 51 | 50 | 52 | 52 | 53 | 52 | 49 | 50 | 48 | 50 | 49 | 49 | 51 | 52 |
| ARM | 50 | 44 | 41 | 42 | 41 | 43 | 43 | 41 | 40 | 41 | 49 | 46 | 45 | 46 | 45 | 47 | 49 | 49 | 47 | 49 |
| OXF | 65 | 62 | 60 | 61 | 60 | 61 | 61 | 60 | 60 | 61 | 63 | 60 | 58 | 59 | 59 | 59 | 59 | 58 | 59 | 59 |
| PLY | 54 | 52 | 49 | 51 | 50 | 51 | 52 | 51 | 50 | 51 | 56 | 54 | 50 | 51 | 51 | 52 | 52 | 49 | 50 | 53 |
| UK | 52 | 48 | 45 | 47 | 46 | 47 | 48 | 46 | 46 | 47 | 49 | 47 | 44 | 45 | 45 | 46 | 46 | 45 | 45 | 46 |

### Forecast Period 5 Years

| | Mean Maxima | | | | | | | | | | Mean Minima | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 43 | 31 | 29 | 29 | 29 | 29 | 31 | 31 | 31 | 30 | 44 | 37 | 37 | 39 | 41 | 43 | 44 | 43 | 41 | 40 |
| DUR | 46 | 35 | 31 | 33 | 31 | 32 | 32 | 31 | 32 | 32 | 49 | 41 | 39 | 39 | 37 | 38 | 36 | 37 | 39 | 40 |
| ARM | 41 | 31 | 27 | 29 | 29 | 29 | 31 | 26 | 23 | 23 | 43 | 37 | 36 | 37 | 36 | 39 | 42 | 39 | 37 | 39 |
| OXF | 58 | 52 | 48 | 49 | 49 | 49 | 49 | 47 | 46 | 47 | 58 | 51 | 47 | 49 | 50 | 49 | 47 | 46 | 45 | 45 |
| PLY | 48 | 43 | 39 | 41 | 41 | 41 | 43 | 41 | 38 | 39 | 49 | 45 | 38 | 39 | 41 | 40 | 41 | 36 | 37 | 41 |
| UK | 43 | 33 | 30 | 33 | 32 | 33 | 34 | 31 | 29 | 30 | 42 | 35 | 33 | 34 | 34 | 35 | 35 | 33 | 32 | 33 |

### Forecast Period 10 Years

| | Mean Maxima | | | | | | | | | | Mean Minima | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 28 | 12 | 11 | 10 | 9 | 11 | 12 | 12 | 11 | 11 | 37 | 26 | 26 | 28 | 32 | 34 | 35 | 33 | 31 | 30 |
| DUR | 31 | 13 | 12 | 12 | 10 | 11 | 9 | 8 | 9 | 10 | 37 | 26 | 23 | 20 | 20 | 17 | 14 | 17 | 19 | 20 |
| ARM | 29 | 13 | 13 | 13 | 13 | 15 | 15 | 9 | 7 | 8 | 35 | 25 | 25 | 24 | 25 | 30 | 32 | 29 | 30 | 33 |
| OXF | 51 | 38 | 35 | 35 | 35 | 35 | 35 | 31 | 30 | 32 | 52 | 40 | 37 | 39 | 39 | 36 | 33 | 30 | 29 | 29 |
| PLY | 41 | 29 | 28 | 28 | 27 | 30 | 31 | 28 | 27 | 30 | 45 | 34 | 27 | 29 | 30 | 30 | 29 | 24 | 27 | 23 |
| UK | 31 | 17 | 17 | 17 | 16 | 18 | 18 | 15 | 14 | 16 | 33 | 22 | 20 | 21 | 22 | 22 | 21 | 19 | 19 | 20 |

### Forecast Period 20 Years

| | Mean Maxima | | | | | | | | | | Mean Minima | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 26 | 10 | 9 | 10 | 9 | 8 | 8 | 5 | 4 | 3 | 31 | 22 | 26 | 29 | 30 | 30 | 28 | 23 | 21 | 20 |
| DUR | 31 | 13 | 7 | 8 | 5 | 4 | 3 | 1 | 2 | 2 | 34 | 21 | 16 | 13 | 7 | 5 | 4 | 4 | 5 | 6 |
| ARM | 25 | 11 | 9 | 10 | 10 | 8 | 6 | 1 | 1 | 1 | 32 | 24 | 23 | 26 | 27 | 27 | 28 | 25 | 27 | 30 |
| OXF | 48 | 38 | 32 | 34 | 31 | 27 | 26 | 16 | 15 | 13 | 51 | 45 | 40 | 38 | 35 | 30 | 27 | 24 | 19 | 12 |
| PLY | 37 | 29 | 24 | 26 | 26 | 24 | 24 | 19 | 13 | 14 | 45 | 37 | 30 | 32 | 30 | 27 | 27 | 18 | 16 | 12 |
| UK | 29 | 17 | 14 | 16 | 14 | 12 | 10 | 5 | 3 | 3 | 32 | 24 | 21 | 22 | 20 | 18 | 16 | 11 | 11 | 9 |

# TABLE V (n) - VALUE OF INDEX - SPRING

MEAN MAXIMA / MEAN MINIMA

## Forecast Period 3 Years

**Mean Maxima**

| | Averaging Period | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 52 | 49 | 45 | 43 | 44 | 45 | 45 | 46 | 46 | 47 |
| DUR | 51 | 51 | 46 | 48 | 49 | 51 | 52 | 53 | 53 | 53 |
| ARM | 38 | 38 | 32 | 35 | 39 | 41 | 43 | 45 | 47 | 49 |
| OXF | 55 | 51 | 41 | 43 | 46 | 48 | 48 | 49 | 51 | 52 |
| PLY | 41 | 38 | 37 | 35 | 35 | 34 | 33 | 34 | 36 | 33 |
| UK | 45 | 43 | 36 | 37 | 39 | 41 | 41 | 42 | 42 | 43 |

**Mean Minima**

| | Averaging Period | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 39 | 33 | 30 | 30 | 32 | 35 | 37 | 38 | 41 | 45 |
| DUR | 37 | 31 | 27 | 31 | 31 | 31 | 32 | 34 | 37 | 43 |
| ARM | 30 | 29 | 25 | 27 | 30 | 32 | 34 | 36 | 38 | 41 |
| OXF | 39 | 33 | 26 | 28 | 27 | 25 | 35 | 23 | 25 | 28 |
| PLY | 37 | 30 | 23 | 25 | 27 | 28 | 29 | 28 | 30 | 33 |
| UK | 31 | 26 | 19 | 22 | 23 | 24 | 24 | 25 | 28 | 33 |

## Forecast Period 5 Years

**Mean Maxima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 45 | 40 | 34 | 33 | 34 | 35 | 36 | 37 | 37 | 39 |
| DUR | 47 | 45 | 40 | 41 | 43 | 44 | 46 | 47 | 47 | 48 |
| ARM | 36 | 33 | 26 | 30 | 35 | 37 | 39 | 41 | 45 | 49 |
| OXF | 52 | 44 | 33 | 36 | 40 | 40 | 41 | 43 | 45 | 46 |
| PLY | 36 | 32 | 29 | 27 | 27 | 23 | 22 | 25 | 28 | 26 |
| UK | 41 | 36 | 28 | 29 | 32 | 32 | 33 | 34 | 36 | 37 |

**Mean Minima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 26 | 21 | 17 | 19 | 20 | 23 | 28 | 32 | 35 | 39 |
| DUR | 29 | 22 | 17 | 22 | 22 | 21 | 23 | 27 | 33 | 40 |
| ARM | 23 | 24 | 19 | 21 | 25 | 26 | 29 | 32 | 35 | 39 |
| OXF | 29 | 23 | 14 | 17 | 17 | 12 | 15 | 15 | 17 | 22 |
| PLY | 31 | 22 | 13 | 16 | 19 | 18 | 20 | 22 | 24 | 27 |
| UK | 21 | 16 | 9 | 12 | 14 | 13 | 16 | 19 | 23 | 29 |

## Forecast Period 10 Years

**Mean Maxima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 41 | 32 | 29 | 27 | 29 | 30 | 31 | 33 | 34 | 37 |
| DUR | 47 | 42 | 41 | 41 | 42 | 43 | 44 | 46 | 47 | 49 |
| ARM | 36 | 28 | 25 | 30 | 34 | 36 | 39 | 43 | 50 | 55 |
| OXF | 48 | 36 | 31 | 35 | 36 | 36 | 37 | 39 | 41 | 44 |
| PLY | 34 | 26 | 25 | 21 | 17 | 13 | 13 | 17 | 20 | 19 |
| UK | 39 | 29 | 25 | 27 | 27 | 27 | 29 | 31 | 33 | 35 |

**Mean Minima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 21 | 14 | 13 | 14 | 19 | 24 | 29 | 34 | 38 | 40 |
| DUR | 21 | 11 | 11 | 13 | 13 | 15 | 18 | 23 | 32 | 35 |
| ARM | 23 | 19 | 16 | 19 | 21 | 23 | 27 | 31 | 36 | 40 |
| OXF | 22 | 12 | 7 | 10 | 8 | 7 | 8 | 8 | 12 | 17 |
| PLY | 24 | 9 | 6 | 9 | 11 | 12 | 14 | 16 | 19 | 19 |
| UK | 17 | 7 | 5 | 7 | 8 | 10 | 13 | 18 | 24 | 28 |

## Forecast Period 20 Years

**Mean Maxima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 36 | 26 | 23 | 21 | 22 | 25 | 28 | 32 | 36 | 37 |
| DUR | 48 | 43 | 40 | 39 | 40 | 42 | 45 | 49 | 56 | 58 |
| ARM | 35 | 31 | 31 | 34 | 38 | 44 | 53 | 65 | 73 | 75 |
| OXF | 46 | 36 | 29 | 27 | 27 | 29 | 31 | 34 | 37 | 35 |
| PLY | 29 | 21 | 12 | 4 | 1 | 1 | 2 | 4 | 5 | 4 |
| UK | 35 | 27 | 22 | 20 | 21 | 23 | 25 | 29 | 34 | 34 |

**Mean Minima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 22 | 17 | 16 | 23 | 30 | 36 | 42 | 47 | 50 | 49 |
| DUR | 22 | 14 | 12 | 15 | 16 | 20 | 26 | 36 | 49 | 55 |
| ARM | 19 | 17 | 16 | 19 | 22 | 26 | 33 | 43 | 47 | 47 |
| OXF | 19 | 11 | 5 | 6 | 3 | 0 | 0 | 0 | 0 | 2 |
| PLY | 20 | 10 | 7 | 11 | 13 | 13 | 17 | 18 | 20 | 18 |
| UK | 14 | 8 | 6 | 8 | 9 | 11 | 17 | 25 | 32 | 34 |

# TABLE V (c) - VALUE OF INDEX - SUMMER

## Forecast Period 3 Years

**MEAN MAXIMA**

| | Averaging Period | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 48 | 42 | 42 | 41 | 42 | 43 | 43 | 42 | 42 | 42 |
| DUR | 55 | 52 | 52 | 52 | 50 | 49 | 49 | 49 | 49 | 47 |
| ARM | 43 | 38 | 39 | 36 | 37 | 38 | 39 | 38 | 39 | 41 |
| OXF | 57 | 53 | 52 | 51 | 52 | 52 | 52 | 52 | 54 | 55 |
| PLY | 49 | 40 | 35 | 38 | 32 | 33 | 33 | 36 | 38 | 37 |
| UK | 45 | 38 | 37 | 35 | 36 | 37 | 36 | 36 | 37 | 37 |

**MEAN MINIMA**

| | Averaging Period | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 31 | 31 | 32 | 33 | 37 | 40 | 42 | 44 | 44 | 44 |
| DUR | 25 | 24 | 26 | 26 | 27 | 29 | 29 | 27 | 28 | 30 |
| ARM | 21 | 15 | 17 | 15 | 16 | 19 | 20 | 23 | 23 | 22 |
| OXF | 20 | 19 | 17 | 16 | 18 | 18 | 19 | 20 | 23 | 23 |
| PLY | 17 | 15 | 15 | 15 | 16 | 16 | 18 | 18 | 17 | 16 |
| UK | 17 | 15 | 16 | 15 | 17 | 20 | 21 | 22 | 23 | 23 |

## Forecast Period 5 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 42 | 34 | 34 | 33 | 35 | 36 | 35 | 32 | 33 | 29 |
| DUR | 51 | 47 | 46 | 46 | 44 | 44 | 44 | 42 | 42 | 37 |
| ARM | 34 | 29 | 28 | 27 | 28 | 29 | 28 | 27 | 31 | 31 |
| OXF | 51 | 46 | 42 | 43 | 44 | 46 | 45 | 45 | 47 | 45 |
| PLY | 42 | 26 | 22 | 24 | 14 | 18 | 17 | 20 | 24 | 25 |
| UK | 39 | 29 | 27 | 27 | 27 | 29 | 28 | 27 | 27 | 24 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 27 | 27 | 27 | 30 | 34 | 38 | 40 | 42 | 43 | 39 |
| DUR | 21 | 20 | 21 | 22 | 25 | 27 | 26 | 23 | 25 | 26 |
| ARM | 13 | 9 | 9 | 9 | 11 | 13 | 15 | 17 | 19 | 14 |
| OXF | 17 | 15 | 10 | 11 | 13 | 15 | 15 | 15 | 19 | 17 |
| PLY | 10 | 7 | 7 | 7 | 9 | 11 | 11 | 12 | 11 | 7 |
| UK | 12 | 10 | 10 | 11 | 14 | 17 | 17 | 19 | 21 | 18 |

## Forecast Period 10 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 30 | 23 | 23 | 23 | 25 | 25 | 20 | 17 | 5 | 6 |
| DUR | 47 | 43 | 44 | 43 | 41 | 40 | 39 | 36 | 32 | 29 |
| ARM | 30 | 23 | 21 | 20 | 21 | 20 | 19 | 21 | 24 | 23 |
| OXF | 47 | 40 | 38 | 40 | 41 | 42 | 39 | 40 | 40 | 36 |
| PLY | 31 | 12 | 13 | 10 | 5 | 5 | 5 | 9 | 11 | 15 |
| UK | 29 | 19 | 19 | 20 | 21 | 21 | 18 | 16 | 14 | 10 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 27 | 25 | 27 | 31 | 36 | 39 | 41 | 43 | 41 | 33 |
| DUR | 18 | 17 | 18 | 20 | 23 | 23 | 19 | 18 | 19 | 15 |
| ARM | 10 | 6 | 6 | 7 | 9 | 10 | 12 | 15 | 14 | 9 |
| OXF | 15 | 10 | 7 | 9 | 11 | 12 | 12 | 13 | 15 | 10 |
| PLY | 8 | 5 | 5 | 5 | 7 | 9 | 9 | 9 | 7 | 3 |
| UK | 9 | 8 | 8 | 10 | 13 | 15 | 15 | 18 | 18 | 11 |

## Forecast Period 20 Years

**MEAN MAXIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 28 | 22 | 22 | 21 | 17 | 12 | 8 | 6 | 4 | 0 |
| DUR | 49 | 45 | 45 | 43 | 39 | 35 | 30 | 27 | 24 | 15 |
| ARM | 27 | 21 | 18 | 15 | 14 | 14 | 15 | 19 | 21 | 15 |
| OXF | 48 | 43 | 41 | 41 | 39 | 37 | 38 | 37 | 37 | 28 |
| PLY | 33 | 14 | 10 | 7 | 2 | 3 | 1 | 3 | 5 | 8 |
| UK | 29 | 21 | 21 | 21 | 17 | 14 | 10 | 9 | 7 | 3 |

**MEAN MINIMA**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 31 | 32 | 35 | 38 | 42 | 44 | 45 | 44 | 39 | 29 |
| DUR | 22 | 20 | 21 | 21 | 20 | 19 | 17 | 15 | 16 | 12 |
| ARM | 12 | 8 | 8 | 10 | 11 | 13 | 15 | 15 | 14 | 8 |
| OXF | 15 | 12 | 10 | 11 | 12 | 13 | 12 | 15 | 18 | 12 |
| PLY | 7 | 5 | 5 | 6 | 6 | 6 | 5 | 4 | 2 | 0 |
| UK | 12 | 11 | 11 | 13 | 14 | 15 | 17 | 18 | 16 | 9 |

## TABLE V (p) - VALUE OF INDEX - AUTUMN

MEAN MAXIMA — MEAN MINIMA

### Forecast Period 3 Years

**Mean Maxima** — Averaging Period

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 44 | 37 | 39 | 38 | 37 | 38 | 40 | 38 | 36 | 36 |
| DUR | 44 | 37 | 39 | 36 | 38 | 39 | 41 | 42 | 43 | 45 |
| ARM | 41 | 32 | 35 | 32 | 33 | 35 | 37 | 36 | 38 | 40 |
| OXF | 50 | 43 | 43 | 41 | 41 | 42 | 43 | 44 | 47 | 43 |
| PLY | 44 | 35 | 35 | 29 | 30 | 30 | 32 | 39 | 30 | 26 |
| UK | 41 | 32 | 33 | 29 | 29 | 30 | 31 | 31 | 32 | 33 |

**Mean Minima** — Averaging Period

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 29 | 21 | 22 | 23 | 26 | 26 | 31 | 35 | 43 | 43 |
| DUR | 39 | 33 | 37 | 38 | 41 | 43 | 44 | 44 | 46 | 50 |
| ARM | 44 | 37 | 36 | 34 | 34 | 36 | 38 | 38 | 41 | 44 |
| OXF | 40 | 35 | 37 | 36 | 37 | 38 | 40 | 40 | 45 | 49 |
| PLY | 45 | 41 | 43 | 42 | 43 | 44 | 46 | 48 | 51 | 51 |
| UK | 34 | 27 | 29 | 28 | 29 | 31 | 35 | 37 | 43 | 47 |

### Forecast Period 5 Years

**Mean Maxima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 33 | 27 | 27 | 28 | 30 | 32 | 33 | 32 | 29 | 30 |
| DUR | 30 | 25 | 25 | 24 | 28 | 30 | 33 | 35 | 40 | 47 |
| ARM | 29 | 19 | 22 | 19 | 22 | 23 | 25 | 26 | 29 | 33 |
| OXF | 38 | 29 | 27 | 26 | 29 | 29 | 30 | 33 | 35 | 34 |
| PLY | 32 | 19 | 19 | 12 | 14 | 11 | 13 | 12 | 12 | 10 |
| UK | 28 | 18 | 18 | 15 | 17 | 17 | 19 | 20 | 22 | 25 |

**Mean Minima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 17 | 11 | 12 | 15 | 19 | 21 | 27 | 33 | 44 | 43 |
| DUR | 29 | 26 | 31 | 33 | 36 | 39 | 39 | 41 | 50 | 58 |
| ARM | 34 | 26 | 24 | 21 | 25 | 28 | 30 | 32 | 36 | 41 |
| OXF | 34 | 27 | 28 | 29 | 31 | 32 | 34 | 37 | 44 | 48 |
| PLY | 38 | 31 | 33 | 32 | 36 | 38 | 40 | 44 | 48 | 47 |
| UK | 22 | 16 | 18 | 19 | 22 | 25 | 29 | 35 | 44 | 49 |

### Forecast Period 10 Years

**Mean Maxima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 27 | 24 | 24 | 25 | 28 | 29 | 29 | 27 | 25 | 26 |
| DUR | 25 | 20 | 21 | 24 | 27 | 30 | 32 | 37 | 46 | 53 |
| ARM | 17 | 12 | 12 | 12 | 14 | 15 | 16 | 19 | 23 | 29 |
| OXF | 28 | 18 | 16 | 18 | 19 | 20 | 23 | 27 | 29 | 28 |
| PLY | 18 | 6 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| UK | 18 | 10 | 9 | 9 | 10 | 11 | 11 | 12 | 13 | 17 |

**Mean Minima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 11 | 7 | 9 | 14 | 17 | 22 | 29 | 40 | 51 | 54 |
| DUR | 24 | 26 | 31 | 33 | 36 | 37 | 39 | 45 | 62 | 69 |
| ARM | 24 | 16 | 14 | 15 | 19 | 23 | 26 | 31 | 39 | 45 |
| OXF | 23 | 20 | 21 | 23 | 24 | 26 | 30 | 39 | 55 | 64 |
| PLY | 27 | 23 | 23 | 25 | 28 | 31 | 36 | 44 | 49 | 45 |
| UK | 14 | 11 | 14 | 17 | 20 | 24 | 30 | 39 | 53 | 57 |

### Forecast Period 20 Years

**Mean Maxima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 27 | 24 | 27 | 29 | 30 | 29 | 27 | 25 | 24 | 24 |
| DUR | 28 | 25 | 27 | 29 | 32 | 36 | 42 | 52 | 68 | 68 |
| ARM | 21 | 15 | 15 | 15 | 16 | 18 | 20 | 23 | 33 | 38 |
| OXF | 29 | 21 | 19 | 19 | 22 | 26 | 32 | 37 | 38 | 31 |
| PLY | 16 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| UK | 19 | 12 | 11 | 11 | 11 | 12 | 11 | 10 | 13 | 17 |

**Mean Minima**

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| GOR | 15 | 14 | 17 | 23 | 30 | 40 | 54 | 70 | 87 | 92 |
| DUR | 33 | 34 | 36 | 38 | 40 | 43 | 50 | 67 | 89 | 88 |
| ARM | 23 | 18 | 18 | 20 | 25 | 32 | 40 | 58 | 67 | 69 |
| OXF | 27 | 23 | 24 | 25 | 28 | 34 | 44 | 66 | 93 | 94 |
| PLY | 32 | 28 | 28 | 31 | 36 | 44 | 54 | 60 | 62 | 58 |
| UK | 20 | 19 | 21 | 25 | 29 | 37 | 50 | 68 | 82 | 81 |

## TABLE V ($\sigma$) – VALUE OF INDEX – YEAR

FORECAST PERIOD 3 YEARS

| | Averaging Period | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 51 | 49 | 49 | 50 | 51 | 53 | 54 | 55 | 57 | 60 |
| DUR | 54 | 51 | 49 | 52 | 52 | 54 | 55 | 55 | 57 | 59 |
| ARM | 38 | 35 | 35 | 35 | 37 | 40 | 42 | 43 | 46 | 50 |
| OXF | 59 | 55 | 49 | 48 | 48 | 47 | 46 | 46 | 49 | 52 |
| PLY | 52 | 44 | 41 | 43 | 44 | 44 | 45 | 43 | 44 | 46 |
| UK | 48 | 43 | 40 | 42 | 43 | 44 | 44 | 45 | 47 | 51 |

FORECAST PERIOD 5 YEARS

| | Averaging Period | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 42 | 38 | 37 | 38 | 40 | 42 | 44 | 46 | 49 | 50 |
| DUR | 50 | 46 | 43 | 46 | 47 | 50 | 49 | 51 | 53 | 56 |
| ARM | 31 | 27 | 26 | 28 | 31 | 34 | 37 | 39 | 43 | 46 |
| OXF | 56 | 48 | 37 | 37 | 38 | 35 | 34 | 37 | 41 | 44 |
| PLY | 46 | 33 | 29 | 31 | 33 | 32 | 34 | 34 | 35 | 37 |
| UK | 42 | 34 | 28 | 31 | 32 | 34 | 35 | 37 | 41 | 43 |

FORECAST PERIOD 10 YEARS

| | Averaging Period | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 33 | 21 | 23 | 24 | 29 | 33 | 35 | 39 | 41 | 38 |
| DUR | 45 | 37 | 39 | 41 | 43 | 45 | 45 | 47 | 53 | 54 |
| ARM | 27 | 23 | 24 | 27 | 30 | 33 | 36 | 40 | 45 | 48 |
| OXF | 50 | 35 | 24 | 25 | 23 | 22 | 24 | 28 | 33 | 34 |
| PLY | 33 | 13 | 13 | 16 | 18 | 20 | 21 | 20 | 21 | 20 |
| UK | 33 | 19 | 19 | 21 | 24 | 26 | 28 | 32 | 36 | 36 |

FORECAST PERIOD 20 YEARS

| | Averaging Period | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| GOR | 26 | 20 | 23 | 27 | 32 | 37 | 43 | 45 | 47 | 41 |
| DUR | 47 | 42 | 42 | 43 | 44 | 47 | 53 | 61 | 67 | 65 |
| ARM | 32 | 30 | 30 | 32 | 36 | 42 | 49 | 55 | 58 | 57 |
| OXF | 49 | 39 | 26 | 24 | 25 | 26 | 32 | 37 | 41 | 38 |
| PLY | 30 | 18 | 14 | 18 | 19 | 18 | 19 | 15 | 15 | 12 |
| UK | 32 | 24 | 21 | 23 | 26 | 30 | 36 | 40 | 43 | 40 |

## TABLE VI

### Optimum averaging period (years) for temperatures in the UK

| TIME AVERAGE | MAXIMA | MINIMA |
|---|---|---|
| 10 days | 45 | 40 |
| Month | 35 | 30 |
| Season | 25 | 20 |
| Year | 15 | |

Results are based on data from 5 stations in the UK for the period 1882-1976