

APPENDIX 1

**THE ECONOMIC IMPACT OF THE MOVE OF THE MET OFFICE TO
EXETER**

by

**Dr. Paul Bishop
Dr. Steven Brand**

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University of Plymouth.**

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EXECUTIVE SUMMARY

- The move of the headquarters of The Met Office to Exeter will generate an estimated contribution of £65m to annual Devon GDP. The impact could vary within the range £49m - £81m depending upon the final scale of the move.
- It is estimated that the new HQ will directly or indirectly generate 1,810 jobs within the local economy. The number of jobs created could vary within the range 1,360 – 2,260 depending upon the final number of workers employed in the new facility.
- The service sector will be the major beneficiary of the “knock-on” impact of the new HQ. Substantial benefits are likely for professional, business, property and computing related services. Other services likely to receive important benefits include retail, hotels & catering, the public sector and telecommunications.
- The construction phase of the project will yield significant short-term benefits to the local economy. However, a precise estimate is difficult due to data limitations. On a conservative basis, the project could directly or indirectly generate 205 FTE jobs and £7.5m of income on an annual basis over the lifetime of the project. This could be substantially higher if a significant proportion of work is placed locally.
- The skilled, professional and scientific nature of many of the new jobs created will be a significant boost to the overall quality of jobs available in the Exeter sub-region.
- The new HQ will have an important impact on improving the image of Exeter as a major regional service centre, well suited to the location of major organisations.
- The environmental focus of The Met Office will assist in the development of the region as an environmentally friendly location.

1. Introduction

1.1 This report was commissioned by Exeter City Council in February 2001. The general brief for the project was to *assess the economic impact of the establishment of the new headquarters facility of The Met Office in Exeter*. The structure of the report is as follows:

- *Section 2* provides brief background details concerning the decision to move to Exeter and the nature of the new facility.
- *Section 3* provides an outline of the methodology used to derive the quantitative estimates of the impact of the new facility.
- *Section 4* presents the quantitative estimates.
- *Section 5* discusses the wider impact of the facility on the local economy.
- *Section 6* summarises the main conclusions of the report.

1.2 It should be noted that at the time of the production of this report, the final details of the number of jobs involved in the move, the construction costs of the facility and other important data were not finalised. The estimates in this report are hence based upon provisional data supplied by Exeter City Council and The Met Office.

2. Background

2.1 In November 2000, The Met Office announced that it had chosen Exeter as the preferred location for its new headquarters. This represented the culmination of a decision-making process that began in January 2000 when it was announced that The Met Office wished to relocate from its existing facility in Bracknell. After an initial period of consultation, four sites – Exeter, Bracknell, Norwich and Reading were short-listed for further consideration. In announcing the final decision to choose Exeter, the Under Secretary of State for Defence, Dr Lewis Moonie stated that *“Exeter will offer an excellent environment for Met Office staff. It has all the necessary links and local facilities for a world-leading weather centre.”*

2.2. The move of the Met Office to Exeter is clearly a major boost to the local economy as it represents the relocation of the headquarters facility of a world renowned and technologically advanced organisation. The Met Office is an Executive Agency of the Ministry of Defence (MOD) and has an annual revenue of over £150m. It provides the national meteorological service for the United Kingdom providing a range of forecasts, climatological data and scientific research. It serves a variety of customers of which the highest revenue streams accrue from the MOD, the Public Met Service, the Civil Aviation Authority, the DETR and various commercial customers.

2.3 The Met Office is a relatively large agency employing over 2,000 people in approximately 80 locations primarily in the UK. The most important facility is the Bracknell headquarters, which employs over half of the current staff. Many employees are highly qualified scientists, forecasters and computing experts utilising sophisticated computer hardware and software. In addition, many staff and new recruits have graduate qualifications in maths, physics or computing. The organisation also employs over 400 staff in sales, marketing, commercial, finance and support service positions.

2.4 The decision to relocate to Exeter reflects a number of factors. In particular, Peter Ewins, the Chief Executive of the Met Office noted that *“We are very impressed by the facilities which Exeter had to offer, and by the enthusiasm shown by local officials in encouraging us to move here.”* Mr Ewins also noted that Exeter had substantially lower costs than competing locations and had been the choice of the majority of staff when asked to make a final choice between Exeter and Reading. More generally, Exeter benefits from the presence of a number of factors that are known to be important in influencing the location decisions of this type of organisation. These include the availability of a high quality site, a pleasant working environment, and the presence of a local university (Bishop, 1992). Of particular importance was the presence of the University of Exeter with its reputation in Mathematics which matched the needs of the Met Office.

3. Methodology

3.1 The method used to assess the economic impact of the Met Office move in this study is input-output modelling. This section provides a brief introduction to this form of analysis and the specific model used in the present study.

3.2 An input-output model provides a highly detailed description of the complex supply networks – the patterns of purchases and sales between industry groups - which exist in an economy. Thus, if we take a typical sector such as the chemical industry, the model provides a breakdown of how much this sector purchases from other local industrial sectors such as mining, metal manufacturing and business services. In addition, the model details the value of the purchases made by the chemical sector for labour, capital, land and enterprise (i.e. wage payments, rents, profits and dividends) and goods imported from outside the region. On the sales side, a similar picture is provided of the breakdown of the sector's sales to various industrial sectors, consumers, government and exports to industries located outside the local economy.

3.3. An input-output model hence provides an extremely useful methodology for investigating the local impact of an organisation or industrial sector. For example, the impact of a £10m increase in the sales of an organisation can be examined to evaluate the effect on other sectors of the local economy. The model will also estimate multipliers, which show the multiple by which the final income in the locality will change in response to an initial change in the sales of an organisation. These multipliers facilitate the estimation of the *total* impact of the change taking into account both its direct impact and the knock-on impact arising from local supply linkages and the expenditure of income by individuals working in the organisation.

3.4 Whilst input-output analysis is an appropriate methodology to use in local impact studies, its widespread use has been limited by the costs involved in acquiring the data necessary to construct local models. In order to remedy this deficiency, the South West Economy Centre at the University of Plymouth has been involved in developing input-output models for the South West region for a number of years in co-operation with various local organisations concerned with economic development. The project has developed several models including the model for Devon that is used in the current study. This model utilises available national and regional data in combination with detailed survey information obtained from postal surveys of samples of local firms. This approach is usually termed “hybrid” modelling and provides a useful compromise between the huge cost of models based purely on survey data and the potential inaccuracies of models relying on deriving local spending patterns from aggregated regional or national data.

4. Impact Estimates

4.1 This section estimates the economic impact of The Met Office move in terms of the annual economic benefits to Devon when the facility becomes operational. This is

followed by a brief examination of the short-term impact of the construction phase of the project. The latter analysis is inevitably somewhat speculative as the final details of the project and the identity of the contractor were not known at the time of the compilation of this report.

The operational phase

4.2 The first stage in assessing the economic impact of The Met Office move is to calculate the initial income injection to Devon arising from the direct activities of the new office. The major element of this injection is the gross wage bill of the workers directly employed at the new site. Data supplied by the Met Office indicated that approximately 1,150 workers are expected to be employed in the new facility. The latest accounts of The Met Office show a total wage bill of £74m (including social security and pension contributions) for a workforce of 2,230. Allocating this pro rata to the workers moving to Exeter yields a gross local wage bill of £38.5m. However, it should be noted that The Met Office indicated that the final workforce could be within a range of plus or minus 25% of 1,150. Thus, the actual wage bill (and final impact estimates) could vary significantly according to the actual number employed.

4.3 The second component of the initial income injection is the income arising from the expenditure of the complex on local goods and services. After deducting profit and staff costs it was estimated that The Met Office as a whole had a non-wage spend of £69.5m. Allocating this pro-rata to the part of the organisation moving to Exeter indicated a non-wage spend of £36.1m. However, only a proportion of this spending will find its way into the local economy. For example, if the organisation purchases a good from a local supplier, a proportion of this expenditure will be used to pay its own suppliers, some of whom will be located outside of the region. These payments will not accrue as income to individuals living in Devon. Thus, the appropriate estimate of the local income injection is that component of spending which generates local value added. In the absence of detailed information concerning the likely expenditure breakdown of the new organisation it was assumed that 45% of the non-wage spend constituted local value added representing an initial income injection of £16.2m. This may be an overestimate in the short-term, as it may take time for the organisation to become aware of local suppliers. However, over the long-term it is a reasonable assumption. For example, data collected for recent studies of the University of Plymouth and Devonport Naval Base/Dockyard indicated that local value added was, respectively, 45% and 48% (Bishop, 1997, 1998).

4.4 Combining gross wage payments and the local value added of the non-wage spend results in an estimated £54.7m of direct gross income accruing to the Devon economy as a consequence of The Met Office move. This information was entered into the input-output model, which was then used to calculate the multiplier (knock-on) effect on the local economy. This impact arises from the spending on local goods and services by local suppliers to the Met Office (the indirect effect) and the local expenditure of employees and their families receiving direct income from the activities of the complex (the induced

effect). The total value of the multiplier effect was estimated to be £10.2m. This represents an overall multiplier of 1.16 on the initial income injection. This is similar to the multiplier effects calculated for other major local organisations such as Devonport Dockyard (Bishop, 1998).

4.5. The final estimate of the impact of the new establishment is that it will contribute £64.9m to local GDP. Of course this figure is subject to a variation of plus or minus 25% depending upon the precise scale of the final move to Exeter. The estimates are summarised in table 1. One additional complicating factor concerns the recruitment of local staff as compared to in-migrants. Clearly, when a local person is recruited the income change to the local area is less than the staff cost of the new job as the worker is likely to be giving up an existing income, for example, in the form of unemployment benefit. This will reduce the overall impact of the move. However, as the proportion of employees recruited locally is not yet known with certainty, this factor was not taken into account in the calculations. As most staff are likely to be in-migrants, this effect would, in any case, only have a relatively small impact on the final estimates.

Table 1: The Economic Impact of The Met Office

	GDP (£m)			Employment		
	From wages	Non-wage	Total	From wages	Non-wage	Total
Direct	38.5	16.2	54.7	1150	380	1530
Indirect	7.2	3.0	10.2	190	90	280
Total	45.7	19.2	64.9	1340	470	1810
Range of total	GDP (£m): 48.7 - 81.1			Employment: 1360 - 2260		

4.6 The GDP data can be used to derive estimates of the local employment generated by the new organisation. These estimates, also presented in table 1, indicate that 660 jobs will be created in the local economy as a consequence of the non-wage spending of the organisation and the multiplier effects. Including direct employment at the new facility, this represents a total of 1,810 jobs (again subject to plus or minus 25%). To put this in context, this represents approximately 1.6% of current employees in employment in the local TTWA.

4.7 The input-output model also facilitates an industrial breakdown of the new headquarters. This impact arises from two sources. First, the expenditure of the direct employees of the organisation on local goods and services which involves an indirect effect of £7.2m (see table 1). Second, the direct and indirect impact of non-wage spending on local goods and services. This comprises a direct effect of £12.3m (£16.2m scaled down to exclude profits) and an indirect effect of £3m. In order to determine the industrial breakdown of this spending, the model assumes that households have the typical expenditure pattern of other households in the region. Similarly, it assumes that The Met Office has the typical expenditure pattern of other organisations in its sector.

Clearly, therefore, these figures should only be regarded as rough orders of magnitude rather than precise estimates.

4.8 Table 2 lists the sectors that are estimated to receive economic benefits of greater than £0.5m. It can be seen that the major impact is on a range of service sectors. Of particular importance are Professional Services (including legal, accountancy and market research), property related services (including rents and payments to estate agents), Other Business Services (including secretarial, cleaning and a variety of miscellaneous services) and Computing. The other services with over £0.5m of benefits are Retail, Hotels & Catering, Postal Services & Telecommunications, Public Services, Admin. and Defence, Motor Distribution, the Utilities and Wholesale. The overall structure of spending reflects the general dominance of the service sector both locally and in the economy as a whole. It is also a purchasing pattern similar to that of other local organisations. For example, the previously mentioned study of Devonport Dockyard revealed that only 7.7% of local purchases were accounted for by all manufacturing sectors.

Table 2: Economic impact by industrial sector (with over £0.5m. of impact)

	Sector	Impact on GDP (£m)
1	Professional Services	4.8
2	Letting, Real Estate and Estate Agency	3.4
3	Other Business Services	3.3
4	Computing	2.0
5	Retail, Hotels & Catering	1.3
6	Public Services, Admin. and Defence	1.2
7	Postal Services & Telecomm.	1.1
8	Motor Distribution and Repair	0.7
9	Electricity, Gas and Water	0.6
10	Wholesale	0.5

4.9 The expenditure pattern clearly indicates that the move of The Met Office will help to stimulate the growth of some sectors which are key to Exeter's future development. For example, it has been noted in recent reports on the Exeter economy that the financial and business service sector is now the most important local sector accounting for twice the contribution to local GDP of manufacturing (Bishop, 1999). The move of The Met Office will help to boost some important sub-sectors within this broad sector such as professional services and a range of business services including cleaning, secretarial and general labour market services. This should help to sustain and develop Exeter's position as an important sub-regional service centre. In addition, the combined importance of the Computing and Telecommunications sectors highlights the extensive usage of Information and Computing Technologies (ICT's) by the Met Office. Given the acknowledged importance of these sectors to economic growth, this could provide a major boost to the Exeter economy.

The construction phase

4.9 The construction phase of the project is currently scheduled to begin in mid-2001 with final completion due by the end of 2002. Final details of the project are still to be determined and the estimates provided in this section should hence be treated with considerable caution.

4.10 Data supplied by The Met Office suggest that the final construction costs for the project could be between £45m and £60m, spread over an eighteen month period. Although on-site management will be provided by the winning consortium, both potential contractors intend to employ some local labour, subject to skill availability. However, at this point in time it is impossible to make firm predictions concerning the proportion of the construction spend that will find its way directly into the local economy. In general, the experience of other similar projects suggests that a large proportion of expenditure will leak outside the region in terms of payments for profits, raw materials, labour, management and other required inputs.

4.11 Given the uncertainties involved in the construction phase. it was thought appropriate to produce a range of estimates rather than a single figure. These estimates utilised the high and low estimates of the value of the whole project (£45m and £60m) and two alternative estimates of the proportion of this spending that would take place within Devon (25% and 50%). The estimates produced by these assumptions are presented in table 3. On the basis of the most conservative estimate, the construction phase will generate 310 FTE jobs and £11.4m of contribution to GDP over the lifetime of the project. Given that the project will take place over eighteen months, these figures need to be scaled down by a third to obtain annual estimates. This suggests that the project will generate 205 jobs and £7.5m. of income on an annual basis. Two thirds of this employment will be directly associated with the site and the other third will arise indirectly from the “knock-on” impact of the construction work. At the top end of the range, the project is estimated to generate 840 jobs and £30.3m of income. Again, on an annual basis this represents 555 FTE jobs and £20.2m of income with approximately two thirds of the jobs being directly attributable to work on the site.

Table 3: Economic impact of the construction project*

% local		£45m project		£60m project	
		Employment	GDP	Employment	GDP
25	Direct	210	4.2	290	5.5
	Indirect	100	7.2	130	9.6
	Total	310	11.4	420	15.1
	Annual	205	7.5	280	10.0
50	Direct	430	8.3	570	11.1
	Indirect	200	14.4	270	19.2

	Total	630	22.7	840	30.3
	Annual	420	15.0	555	20.2

* The construction project will take place over an eighteen month period and the direct, indirect and total estimates are the sum of the impact over this period of time. The annual figures show the total impact scaled down to an annual basis.

4.12 Clearly, the estimated impact of the construction project varies considerably depending upon the assumptions that are made. At the very least, however, the project will provide a significant short-term boost to the local economy. In principle, the impact of the construction phase can also be broken down on a sector by sector basis. However, a full breakdown is not presented as data limitations preclude any great confidence in such a disaggregated breakdown. Nevertheless, on a broad basis it is clear that the construction phase will generate substantial short-term income for sectors such as Construction, Business Services (for example, through hiring of services/equipment), and Wholesale, Retail & Distribution.

5. The wider impact

5.1 The estimates of the “knock-on” impact of the relocation of The Met Office only take into account the obvious impact of the spending of the organisation and its employees. However, there are a number of other types of impacts that are not directly quantifiable. For example, the local economy will receive an injection of income from visits by customers, suppliers and other individuals to The Met Office. The new development may also have an important long-term impact by boosting the image of the Exeter economy. The fact that a major organisation has chosen Exeter could act as a spur for other companies to seriously consider Exeter as a location. It is also possible that partners and suppliers of The Met Office may choose to relocate to Exeter to maintain proximity to the organisation. Further employment opportunities may also arise from any partnerships or joint ventures that may develop between The Met Office and other local organisations such as the University of Exeter. Taken together with the proposals for a new Technology Park and the expanding innovation centre at the University of Exeter, the move offers Exeter the opportunity to begin to develop a nucleus of high technology businesses.

5.2 Another important aspect of the move concerns the important environmental work undertaken by The Met Office. This focus will help to develop Exeter’s image as an environmentally friendly location and, in a wider context, will assist the RDA’s desire to develop the South West as an environmentally friendly region. The move will also assist in the Council’s drive to improve the quality of local employment opportunities and the skill profile of the region. This arises from the nature of jobs created in The Met Office and other incoming firms subsequently attracted to move to Exeter. Indeed, whilst many jobs will initially be filled by in-migrants, as existing employees leave or retire there will be major employment opportunities for local staff.

5.4 Whilst the benefits of the move of The Met Office are considerable, there will clearly be some short-term pressure on local schools, roads and housing. However, this is an inevitable consequence of any large-scale economic development and should be regarded as a challenge rather than a problem. Some of the road pressures will be offset by the shift-work system of The Met Office, the provision of a new road junction, new bus/cycle routes and the Met Office's Green Travel Plan. It is also believed that there is sufficient housing and existing consents to cope with an influx of new demand although, clearly, there could be some short-term shortages and/or price rises.

6. Conclusion

6.1 The analysis conducted in this report suggests that the economic impact of the new HQ of The Met Office will be approximately £65m in terms of its contribution to annual Devon GDP. However, the impact could vary within the range £49m - £81m depending upon the final scale of the move. It is also estimated that the move will directly or indirectly generate 1,810 jobs within the local economy. Again, the number of jobs created could vary within the range 1,360 – 2,260 depending upon the final number of workers employed at the new facility. The skilled, professional and scientific nature of many of the jobs created will be a significant boost to the overall quality of jobs available in the area. The main sectors to benefit from the indirect impact of the move will be professional, business, property and computing related services. There will also be some benefit to telecommunications, retail, hotels and catering and public sector related services, but there is unlikely to be any major boost to local manufacturing.

6.2 The construction phase of the project will yield significant short-term benefits to the local economy but the impact could vary substantially according to the final scale of the project and the extent of local purchasing. A conservative estimate would involve the creation of 205 FTE jobs and £7.5m of income on an annual basis over the lifetime of the project.

6.3 In conclusion, it is clear that the move of The Met Office HQ to Exeter will constitute a significant boost to the local economy. Whilst the construction project will have an important short-term impact, it is the long-term impact of the operation of the HQ that is of particular significance. This impact will be felt, not only in terms of the obvious generation of income and employment, but also as a consequence of its contribution to the image of Exeter. In particular, the environmental focus of The Met Office may assist in the development of the image of the sub-region region as an attractive and environmentally friendly location. Clearly, it is important that local policy makers build upon this success in obtaining high quality inward investment to try to attract other companies offering similar high quality jobs.

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