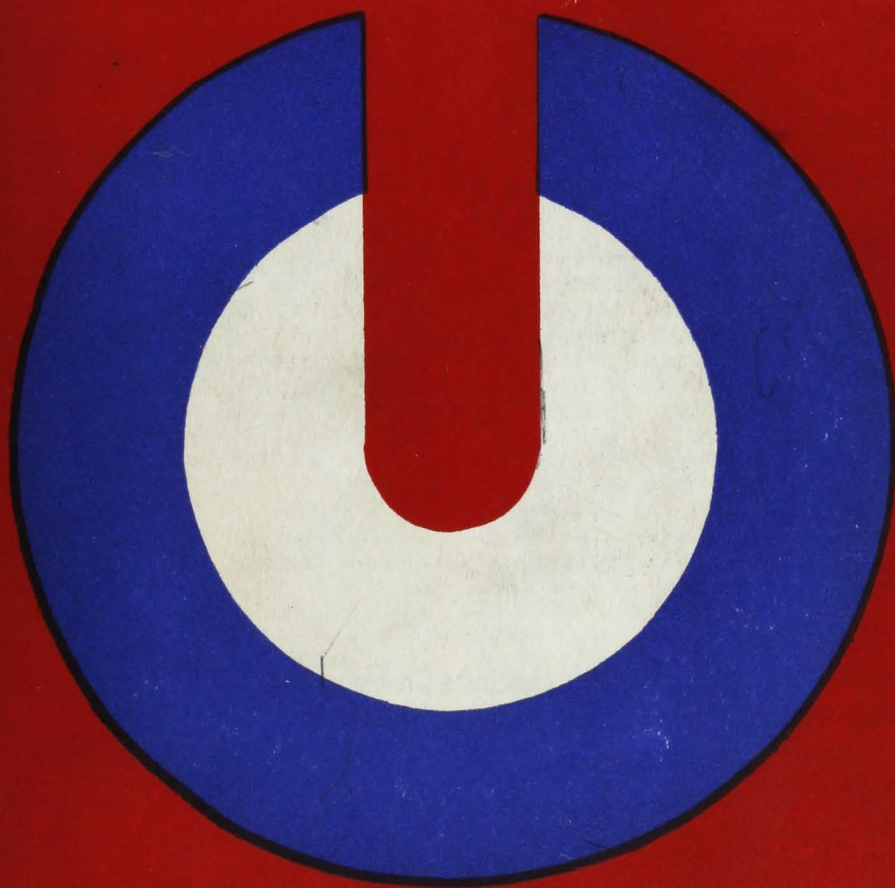


# a national airport plan

BP 161511  
(377)

Rigas Doganis  
fabian tract 377

2s6d



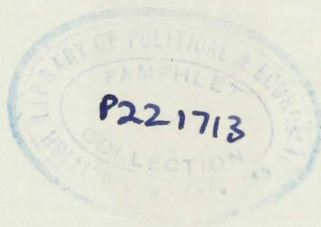
# fabian tract 377

## a national airport plan

---

contents	1	introduction	1
	2	the need for a national airport plan	7
	3	the planning process	11

---



this pamphlet, like all publications of the Fabian Society, represents not the collective view of the Society but only the view of the individual who prepared it. The responsibility of the Society is limited to approving the publications which it issues as worthy of consideration within the Labour movement. Fabian Society, 11 Dartmouth Street, London SW1. November 1967

7163 0377 9

# 1. introduction

The vociferous public outcry over the Stansted decision received far more sympathy than was warranted because the Government failed to take one crucial step in defending their choice. The critical question was whether the regional or national advantages of a particular site outweighed the local disadvantages. Had the Government been able to show this to be the case then it could justifiably have overruled local objections. Stansted enjoys certain advantages, particularly from the point of view of air traffic control and capital costs. Yet the inquiry at Stansted found that the proposed airport would be a "calamity to the area" and recommended a further review of the whole problem. But the inquiry had particularly local terms of reference: "to hear and report on local objections . . . and the effect of the proposed development on local interests". An inquiry at any of the possible sites with a similar reference point would inevitably have come to the same conclusion.

Had the Government been able to show that regional or national needs made Stansted the best choice then it could justifiably have ignored the inquiry's findings. It failed to do so because the "third" London airport was never considered in the context of regional or national planning. The title of "third" is itself spurious when in addition to Heathrow and Gatwick several other airports, such as Luton, Southend or Lympne, serve London's needs. An airport of the size envisaged would have a profound effect on land use, employment, housing needs and surface transport. Yet in no way was the siting of the airport related to regional plans in these other sectors. *The South East study* was conveniently forgotten. These blind, irrational omissions compare unfavourably with similar situations abroad. France, in striking contrast, planned her new Paris Nord airport as an integral part of the master plan for the Paris Region (Schema directeur d'aménagement et d'urbanisme de la région de Paris, 1965).

Unable to justify the choice of Stansted on the grounds of regional planning, the

Government could have made a strong case on the grounds of national priorities. But national priorities must stem from a national plan or policy. And as far as airports are concerned there is no such plan. For some strange reason, and unlike most other countries, we plan less significant sectors of our economy, but not airports. The controversy highlighted the peculiarities of airport development in this country: that it is unplanned and unco-ordinated. Individual airports grow in isolation, more or less at the whim of their owners. Their growth is in no way related to the development and needs of other sectors of the economy. The roots of this malaise go back a long way to the missed opportunities of a previous Labour government.

## missed opportunities

The prospects for airport planning in 1945 seemed particularly good. Civil flying had been banned during the War but technical improvements, such as the building of hangars or concrete runways, had been carried out on many former civil aerodromes. Many new aerodromes had also been constructed. At the end of the War, there were in this country about 700 airfields, many of which could, where necessary, be used and adapted for civil air transport.

At first, the government seemed determined to capitalise on the opportunities offered to it. In the 1945 white paper on *British air services* (Cmnd 6712, 1945) the newly elected Labour government decided that air transport services should be owned and controlled by three state corporations (BEA, BOAC and British South American Airways), while the airfields required for scheduled air services were to be acquired and managed by the Ministry of Civil Aviation.

The government decided on direct ministry control rather than on an airports corporation, both because it felt that it was extremely unlikely that airports would ever be able to pay their way, and because the development of the domestic airport network would require

very close co-operation between several ministries. Such co-operation could be more effectively achieved from within an existing ministry. But airports would not be run directly from Whitehall for the intention was to set up regional organisations based on the principal airport within each region. The white paper also envisaged a plan within which this network was to be developed. "If we are to secure the orderly development of transport aerodromes in the right place and up to the right standards, it is necessary to have a central plan" (Ivor Thomas, Parliamentary Secretary to the Ministry of Civil Aviation, House of Commons, 24 January 1946). This turned out to be little more than a hope. By placing both airports and also, but less directly, scheduled air services within state control the government facilitated the achievement of a planned development. But it failed to take advantage of this opportunity.

No airport plan emerged. It was not until July 1947 that the ministry announced its preliminary programme for the acquisition of airports (*Hansard*, 9 July 1947). This was no more than a list of 44 aerodromes, excluding the London airports and the airports in the Channel Islands and the Isle of Man, which were operated by their respective island authorities. The choice of aerodromes was not explained and their distribution was very uneven. Yorkshire and Lancashire were to have four airports each, but the whole of the Midlands only two, even though Haverfordwest in Pembrokeshire, with a population of less than 10,000, was to have its own airport.

By 1951, when the Labour Party fell from power, many of the airports in the acquisition programme had not yet been taken over and were never, in fact, to be acquired. This was not due to a careful re-appraisal of the original plan and of the future role of air transport. The two primary considerations seem to have been the shortage of capital and the need to concentrate on those airports actually served by the air corporations and more especially by BEA, whose ambitious plans for an extensive domestic network had

been substantially revised after 1947 as a result of experience and economic stringency.

During the 1950s the hopes and aspirations of the 1945 white paper were increasingly forgotten. In the first place the ministry was under financial pressure from the Treasury because of the heavy operating and capital losses of its aerodromes and technical services. Even as late as 1955 these losses were more than £6 million per year (*Civil aerodromes and ground services*, Select committee on estimates, 1955-56). The ministry became increasingly eager for local authorities to take over their own airports so as to relieve the Exchequer of the burden of capital expenditure and operating losses. The first breakthrough was in 1950 when the ministry agreed that Manchester Corporation should maintain ownership of Ringway airport. Even though the ministry agreed to contribute towards the cost of capital projects, the Exchequer would still save about £640,000 on capital outlay over a number of years and would also be relieved of operating losses (*Hansard*, 1954-55, vol 539, col 26). Between 1950 and 1955 the ministry surrendered six more airports, Shoreham, Tollerton, Lympne, Turnhouse, Weston-super-Mare, and Yeaton, and three more were in the process of being handed over to the local authorities (Pengam Moors, Lulsgate Bottom and Whitchurch).

Secondly, after the Berlin airlift of 1948, the private airlines were allowed to develop more and more scheduled services. This they could do more easily by using airports not served by the air corporations, so that no diversion of traffic from the latter's services would occur. Since the Ministry of Civil Aviation was reluctant to acquire more airports, these new airports were developed either by local authorities, as in the case of Southend and Newcastle, or by private firms, as in the case of Exeter.

By the middle 1950s hopes of enforcing any kind of national airport plan were gone. Not only had the ministry divested itself of many airports it had originally

owned, but it also failed to use its limited planning powers to any purpose. The 1949 Civil Aviation Act gave the Ministry of Civil Aviation certain statutory powers over airport development. Although aerodromes had to obtain a ministry licence for public use, this was granted if there were no physical obstructions in the way of aircraft landing and taking off and if there were adequate fire precautions. In addition, anyone wishing to establish a new airport had to obtain the Ministry's approval especially if this involved compulsory purchase orders. Finally, if a local authority needed a loan to finance its airport that loan had to be sanctioned by the Ministry of Housing and Local Government, which consulted the Ministry of Aviation on airport matters. However, these controls were and are far from complete. Where an aerodrome site already existed and satisfied the safety regulations, no Ministry of Aviation approval was required except when extension became necessary involving the acquisition or control of more land or when a local authority needed to raise a loan. In the case of privately owned airports no loan sanctions could be exercised in any case.

The ministry, however, no longer felt the need to control and plan the national airport network and therefore failed to use these limited powers to implement some form of planned development. Few applications for the establishment or extension of airport sites were refused. It became easy and fashionable to establish a local airport and many local authorities did just this. The ministry was happy to be relieved of the responsibility. Increasingly it saw its role as the purely negative one of providing airports for those main centres of population whose needs were "not adequately met by municipally owned and operated airports" (*Civil aerodromes and ground services*, memorandum 2, Ministry of Transport and Civil Aviation, Select committee on estimates 1955).

The growing municipalisation of the nation's airports culminated in the 1961 white paper on *Civil aerodromes and air navigational services* (Cmnd 1457, Aug-

ust 1961), which marked the final and complete reversal of the 1945 policy of state ownership of scheduled service airports. The Conservative government decided that henceforth airports should be run as business enterprises without state assistance or responsibility except for the provision of "en route" services and also navigational facilities at some of the more important airports. The government would divest itself of the 22 airports still under Ministry of Aviation ownership. It is significant that this decision came shortly after the Civil Aviation (Licensing) Act of 1960 which established the Air Transport Licensing Board and allowed the independent airlines much greater freedom to compete on scheduled services with BEA and BOAC.

The white paper proposed that the four principal international airports still under ministry control, namely Heathrow, Gatwick, Stansted and Prestwick should be taken over by a public corporation. The Airports Authority Act (1965) created the British Airports Authority, which took over these four airports on 1 April 1966. Its commencing capital debt was set at £53 million.

The ministry still had under its aegis seven airports serving primarily local needs though their costs were met out of general taxation. This was inequitable. The majority of important provincial airports were operated by local authorities and the deficits met out of rates. Therefore people in these areas were paying for airports both as ratepayers and as tax payers. The government hoped that the relevant local authorities would take over the ownership and responsibility of these seven airports. If this was done the airports could be better planned in relation to local needs and resources. The government was, however, prepared to give some financial assistance to local authorities if the costs of running an airport placed too heavy a burden on their ratepayers and if the "aerodrome in question is regarded as one of the limited number indispensable to the national transport system" (*Civil aerodromes and air navigational services*. Cmnd 1457, 1961). To date, of the seven airports,

Blackpool, Cardiff and Glasgow have been handed over to local authorities, and Aberdeen, Belfast, Bournemouth and Edinburgh remain with the Board of Trade.

A third group of airports comprised the nine airports in the highlands and islands of Scotland whose continued operation was essential to the economy and social welfare of the areas they served even though they were unlikely ever to pay their way. The Exchequer would continue to subsidise these airports, but they could be managed as one unit and the government hoped to find an agent to do this on its behalf. Similar proposals were made for the two airports in the fourth group, those at Lands End and the Isles of Scilly. These two are now operated by BEA Helicopters Ltd. But the idea of finding an agent for the highland and island airports has been abandoned.

### administrative chaos

As all pretences of planning were progressively abandoned the system of ownership and management of airports became increasingly confused and complex. In 1945 the Labour government promised order. Today there is chaos.

Most civil airports are owned by local authorities although some, such as Belfast, Aberdeen or Bournemouth (Hurn) are owned and operated by the Board of Trade. A few such as Southampton (Eastleigh), Exeter and Lydd are run as private business ventures, and a smaller group, which includes Chester (Hawarden) and Hull (Brough) airports, are operated by aircraft manufacturing companies. Surprisingly, two or three Ministry of Defence airfields are also used for scheduled air services. Newquay (St. Mawgan) airport is one of these. Finally, a public corporation, euphemistically called the British Airports Authority, owns that rather curious group of airports, three in London and Prestwick in Scotland. It may with the consent of the President of the Board of Trade "provide or assume the management of any

aerodrome in Great Britain". It now seems likely that it will take over Edinburgh (Turnhouse) airport and perhaps even Bournemouth (Hurn) thus creating an even more irrational grouping of airports. The "social service" airports have a variegated system of ownership. Most of those in Scotland are run by the Board of Trade and one or two by other Departments. The Navy operates Macrihanish, which serves Campbeltown. But, as we have seen, a BEA subsidiary runs the heliports serving the Scilly Isles.

Even among local authority airports there is considerable diversity in the form of ownership. Many are owned by a single local authority, a town or county council, while others are owned by consortia of local authorities. Thus the East Midlands airport at Castle Donnington is jointly operated by the county councils of Derbyshire, Nottinghamshire and Leicestershire, and the town councils of Derby and Nottingham, while Eldon airport, a tenth of whose traffic originates in the East Midlands, is the sole concern of Birmingham Corporation.

Such a complex and diverse system of ownership cannot but create confusion and local rivalries. There is no machinery for co-ordination, no plan or framework within which separate airport authorities can plan their own development in the knowledge that their forecasts and expectations will not be upset by unexpected developments at neighbouring airports. On the contrary, airport owners enjoy almost complete freedom of action, especially if they do not need government aid. To attract the traffic upon which their revenue and prestige depend, they try to outdo each other in the facilities they provide. This is both costly and wasteful.

Even attempts at regional co-operation are doomed to failure. There are many instances of this. In the North East almost £1½ million has been spent by the local authorities concerned on buying and developing Tees-side airport. Less than 35 miles away another £2½ million has been spent on the recent improvements at Newcastle (Woolsington) airport.

These developments are quite unco-ordinated and each may jeopardise the other. Yet efforts to establish a single elected body to run the airports have been rebuffed in Tees-side. Even the Northern Economic Planning Council's proposed regional co-ordinating committee, on which the airport committees of Wool-sington, Tees-side and Crosby (Carlisle) would be represented, has so far failed to get off the ground (*Challenge of the changing north*, HMSO 1966). In the West Midlands the rivalry between Birmingham and Coventry airports has become legendary. Coventry Corporation grimly hang on to a costly and little used airport (17,000 passengers in 1966) in the hope that one day it may be officially designated as *the* West Midlands airport. They seem unaware that no one today has the authority to do this.

Apart from the airport owners themselves, many other authorities are involved directly or indirectly in airport development. The Air Transport Licensing Board's decisions are critical for individual airports, yet it cannot take account of this since its primary concern is the economic regulation of air transport services.

The Board of Trade owns airports and negotiates international traffic rights, but it also provides en route navigational services and navigational facilities at many airports. The 1961 white paper proposed that these services should be financially self supporting (*Civil aerodromes and air navigational services*, Cmnd 1457, August 1961). No charge has yet been levied for the en route services and the deficit on these amounted to £8 million in 1965-66. The recent report of the Public Accounts Committee recommended that these costs should be met by those who make use of the services. In order to meet the costs of navigational facilities at airports, a navigational services charge was imposed in November 1964 on top of the normal landing charges. As a result landing charges in the United Kingdom are among the highest in the world and adversely affect the development of air services, particularly domestic ones. By its

charging policy on navigational services the Board of Trade directly influences airport growth.

Other complexities exist. There are six "advisory committees for civil aviation" whose function is to advise the Air Transport Licensing Board on matters affecting air services within their areas. Such committees exist for Scotland, Wales, Northern Ireland, the North, the North West and the West Midlands. For some reason they do not cover the whole country. Their functions seem to clash with those of the Regional Economic Planning Councils, which have responsibility for airports and air services in their regions.

Finally, air transport requirements often conflict with military needs. In such cases the latter always seem to have priority though detailed analysis is precluded on "security" grounds. The siting of the "third" London airport provided several instances of a conflict between civil and military needs. Several possible sites were unacceptable because they would have involved the closure of Shoeburyness firing range. The Ministry of Defence claimed that resiting it, if a suitable site could be found, would cost £25 million. This astronomical figure could not be challenged or explained in detail to the public. Similarly, the Silverstone site would render eight important RAF and USAF airfields "effectively unusable" for military flying and the cost of replacing them might reach £100 million. Other parts of the country have also had such difficulties in developing airports.

### haphazard pattern of airports

As a result of these administrative complexities and divided responsibilities, airport development since the war has been determined not by a central plan but by the actions and plans of numerous and often conflicting interests. Individual airlines, both state owned and private, the Ministry of Aviation and now the Board of Trade, the Ministry of Defence, the Air Transport Licensing Board, various local and regional bodies, aircraft manu-

facturing firms and other private firms, have all had a hand in the development of our airports. With no central plan or Government policy to guide or control them they have established an airport pattern which is haphazard and piecemeal. Areas such as East Anglia or North Wales have no airports with scheduled services, while in others too many airports compete for the limited flights available. The South West has three airports, Exeter, Newquay and Plymouth, but none of them has adequate services. In winter two of them have no scheduled flights at all, while in summer they each have only a handful of flights each day. If all flights were concentrated in one regional airport better facilities and services could surely be provided for the people of the South West.

Hampshire amply illustrates the problems in an unplanned network. It can boast of having three airports all in close proximity, at Bournemouth (Hurn), Southampton (Eastleigh) and Portsmouth. In 1965 Hurn was the major airport of the three and handled 208,000 passengers. But during 1965 Eastleigh, which is privately owned, was extensively modernised and improved and a new concrete runway laid down. Consequently most of the airlines previously using Hurn transferred their services to Eastleigh. Hurn now lies almost unused by scheduled services and the Board of Trade are having difficulty in finding someone to take it off their hands. If Hurn or Portsmouth were to provide even better facilities than those available at Eastleigh they would win back most of the traffic. This may well happen for the South Hampshire study, prepared by Colin Buchanan and partners (July 1967) declared that the airport at Eastleigh "should not be retained in its present position". Clearly this kind of airport competition is wasteful of the nation's resources. South Hampshire should be served by one suitably planned and located airport.

Even in areas with well developed air services problems of co-ordination exist. In the South East, the British Airports Authority may integrate the development

of Heathrow, Gatwick and Stansted, but what can it do about Luton, which the Air Transport Licensing Board has "designated" as a London airport and upon which Luton Corporation has spent nearly £1 million in recent years. And then there is Southend, which in 1966 handled nearly 600,000 passengers, and Manston and Lydd and Lympe. Can all these be allowed to develop independently at the whim of their owners even though they all serve the same area? In the Midlands, Birmingham and Coventry airports are within 20 minutes drive of each other and there is a new airport at Castle Donnington less than an hour's drive from either. Wolverhampton and Stafford, to the north of Birmingham, are also considering the possibility of scheduled services from their airports. Who is to stop them?

Scotland also has problems. Prestwick has traditionally been considered as the international airport for Glasgow and the rest of Scotland, but it has virtually no domestic services. Glasgow is 50 minutes away by road and a fast rail link is only now being planned. But Glasgow Corporation has a new airport of its own at Abbotsinch, which is costing almost £5 million. In April 1966 the Minister of Aviation gave assurances to the Prestwick Airport Development Association that Abbotsinch would be used "primarily for short haul and medium haul services" (*Flight International*, 21 April 1966). But the Board of Trade does not have the power to enforce such an assurance, especially since Glasgow Corporation is determined to develop a wide range of international services from Abbotsinch. As a result bitter and costly rivalry is developing between the two airports. Ironically, Government funds have been invested in both. Prestwick belonged to the Ministry of Aviation until taken over by the British Airports Authority in April 1966, while the Board of Trade has met a large part of the capital expenditure needed for Abbotsinch. The situation will become even more complex and irrational if, as now seems likely, the British Airports Authority also takes over Edinburgh (Turnhouse) airport.



## 2. the need for a national airport plan

We are now entering a period during which the pressures for the establishment of new airports will intensify. It is therefore imperative to understand why a national airport plan is very urgently needed.

### scarce resources

In the first place airports require large amounts of capital and large areas of land. It is essential to consider these as scarce resources and to avoid over investment or misinvestment. This can only be done by co-ordinating the development of airports not only within the same region, but also within neighbouring regions and the country as a whole. Airports should be developed not to compete but to complement each other in the range of services they provide. We have noted above the ease with which new airports could and still can be established. This together with an absence of control over most existing airports inevitably leads to a proliferation of airports in some areas and a shortage in others where the local authorities lack initiative or financial resources. To avoid misinvestment airports must fit into an interlocking national pattern and their location and level of development will be affected by their position in that pattern. As far as this country is concerned this pattern, this co-ordination must be on a national scale.

The capital sums required are enormous, especially if they have to be met by local authorities. The extension of Manchester's runway from 7,900 ft. to 9,000 ft. is costing £1.5 million, while a short distance away Liverpool's current expansion is absorbing over £3 million. Developments costing £5.9 million are being planned for Edinburgh's Turnhouse airport. Nationally these sums add up to a hefty annual investment in airports. The written down value of the capital invested in airports must be of the order of £300 million or more. No one knows, for no check is kept.

The investments involved are large, both in terms of capital and land, and the

risks of misinvestment are equally large if development is not co-ordinated.

The question of land use planning is also very critical. There is a need to safeguard large areas of land for airport requirements which may not be imminent and also to prevent the building of artificial obstructions which may at some future date create safety hazards. With the tendency for major airports to move away from built up areas such planning controls may well need to be exercised over land which is in a different administrative unit than the one which will be primarily served by the airport. Thus airport planning needs to be carried out well in advance of market developments and the zoning of land must be co-ordinated over a wide area.

### high operating costs

Airports are costly to build, but also expensive to operate. Few show a profit on their operations. The BAA's four airports collectively showed a profit of £2.76 million in 1966-67 after interest charges of £2.8 million. But both Gatwick and Stansted make substantial losses. Southend airport made a profit of £112,000 last year, which is the equivalent of a 3d rate and Manchester (Ringway) paid £108,000 into the city's rate fund out of its profits for 1965-66. The only other airports with scheduled services which seem to be profitable are Gloucester (Staverton) and Glasgow (Abbotsinch) which is expected to show a small profit after its first year of operations which ended on 2 May 1967.

These airports are the exceptions. Most airports make substantial losses which are met either out of rates or out of taxes if they are owned by the Board of Trade. In 1966-67 the three Midland airports together had a total deficit of £390,000 after meeting all capital charges. Coventry ratepayers had to meet a deficit of £62,000 for their airport at Baginton. This represents a subsidy of £3 13s for each air passenger who used the airport. At the East Midlands airport of Castle Donnington the deficit was

£232,000 or £1 16s. per passenger, and at Elmdon (Birmingham) £96,000, or a little under four shillings per passenger. Similar losses are made at most airports. The few airports still owned by the Board of Trade made a loss of £473,000 in 1965-66 (*Trading accounts and balance sheets 1965-66*, HMSO). This figure excludes the airports subsequently taken over by the British Airports Authority.

There is little likelihood that the situation will improve for most airports, especially the larger ones, are currently undertaking or planning major and costly developments. Manchester airport needs to spend "several million pounds" during the next few years, while Birmingham's five stage expansion plan will cost £2.6 million. Developments like these will dramatically increase the annual capital redemption charges which have to be met by each airport. Even those airports, such as Manchester or the London airports, currently profitable, may find their profits falling or vanishing altogether.

Landing charges provide the main source of revenue, and this will increase as traffic grows. But the growth in revenue is unlikely to off set the increased burden of capital charges. The situation is aggravated because local jealousies and rivalries cause neighbouring airports to engage in costly competition. Instead of trying to complement each other, each tries to provide newer and better facilities so as to attract traffic away from the other. And as traffic is diluted between several airports the chances of profitability are reduced.

If we plan and rationalise our airports as an integrated network these losses can and should be reduced.

### quality of service

More airports does not mean better service for the passenger. On the contrary, the use of two or more airports in the same area by scheduled operators tends in many instances to decrease the range and frequency of services and to increase

the costs of air transport. For the airlines, more airports mean collectively higher station costs and probably lower aircraft and crew utilisation. Conversely, if services are concentrated on one airport, schedules and frequencies may be improved and better and larger aircraft used. In short, there are operational disadvantages in spreading air services over too many airports and the passenger is worse off. This is a problem in the South West and elsewhere.

### developments in other sectors

It is essential that the provision of airports should be closely related to the future air transport requirements of the areas they are to serve. But these requirements are affected not only by locally generated decisions and developments. Increasingly they will depend on plans made and decisions taken at the regional and more especially the national level. At the moment decisions on airport investment are taken locally, but many of the factors which are of primary importance in the generation of air travel and air freight depend on national policies. Such is the case with the migration of population, the re-distribution of industry, the rate of economic growth and of exports and so on. It is important that an airport should neither fall behind nor greatly overtake the requirements of its hinterland. For this to be so its development must be closely related to developments at the national level. This can only be done through a body which looks at air transport needs at such a level rather than at a purely local level. This does not directly raise questions of ownership and control. In the first instance all that is required is a framework or plan within which individual airports can grow in pace with both local and national needs.

This is particularly important in relation to developments in the other transport media. What thought have individual airports given to the long term implications of the electrification of the Midland Region or the "second" Beeching Plan or the channel tunnel? Ideally, the loca-

tion and planning of airports should be considered in the context of a wider national transport plan or policy. Even without such an overall transport plan, the planning of airports at a national level is becoming increasingly urgent because of nationally planned developments in other transport fields, in railways and highways especially. But the present official attitude is characterised by the July 1966 white paper on *Transport policy*, which mentions air transport only incidentally. This attitude arises directly out of the peculiar division of ministerial responsibilities. Air transport has never really been considered as part of the general transport industry of the country. It is not surprising, therefore, that when the Ministry of Aviation was dissolved in 1966 its airport functions were taken over, not by the Ministry of Transport, but by the Board of Trade.

### co-ordination with air services

A national airport plan is also needed to ensure greater co-ordination between airport development and the provision of air services. At the moment, local authorities or private firms may spend large sums of money in improving the facilities of the airport they administer. But there is no guarantee that there will be any corresponding improvement in the level of air services operated out of that airport. This will depend partly on the route policies of individual airlines and partly on decisions taken by the Air Transport Licensing Board (ATLB) or the President of the Board of Trade. An airline may well be prepared to begin a new service or to improve an existing one, but may have its application to do so rejected by the Licensing Board. Conversely, once a licence has been granted there is no certainty that a service will be maintained, thus leaving the airport authorities with no certainty of the level of future operations.

Unlike the Civil Aeronautics Board in the United States, the ATLB has only limited powers to ensure that minimum frequencies are operated or that the licence is used at all. It has only re-

cently begun to use these powers by making a "use it or lose it" proviso on many of the licences it has granted. But it has been powerless to stop airlines arbitrarily withdrawing their services as BKS did in October 1966, when they withdrew their scheduled operations from Tees-side airport. They were the main operator at the airport and their withdrawal jeopardised the large sums invested by the local authorities.

The present system of route licensing has other drawbacks. The ATLB does not appear to work on caselaw and many of its decisions are contradictory or inexplicable (K. M. Gwilliam, "The regulation of air transport", *Yorkshire bulletin of economic and social research*, May 1966). When BKS withdrew their London-Tees-side service, the new licence was granted to Autair, which operates from Luton, rather than to one of the airlines based on Heathrow, even though it was shown that much of the traffic on the route was transiting on to international flights at Heathrow.

Airlines may appeal against a licensing decision to the President of the Board of Trade who appoints a commissioner to hear the appeal and to make recommendations. But the final decision rests with the President of the Board of Trade and in several cases he has disagreed with his own commissioner's recommendation. Thus there may be three stages of decision making before a licence is granted or more if a re-hearing is ordered. This happened with the rival applications of Cambrian and British Eagle for a Liverpool Paris service which were made in the autumn of 1965. They went through the whole process twice: hearing, appeal to the commissioner, Board of Trade decision, re-hearing, new appeal and finally on 19 July 1967 a final Board of Trade decision. Not only is all this costly but such a system of licensing is far from conducive for the long term planning either of air services or airports. The industry itself is sick with uncertainty. While the ATLB is concerned with the economic regulation of air services, it is the Board of Trade which manages Britain's traffic rights on international

routes. The President of the Board of Trade can direct the ATLB to refuse a licence application if he thinks it will cause problems over traffic rights or, in some cases where a licence has been granted, the Board may be unable or unwilling to negotiate the necessary traffic rights with the country concerned. All this further increases uncertainty and makes co-ordination between the development of airports and the provision of air services even more difficult.

The independent inquiry into the British air transport industry, announced by Douglas Jay when President of the Board of Trade, on 26 July, will look into "the methods of regulating competition and of licensing currently employed". It is to be hoped that the inquiry will make proposals which, if accepted by the Government, will bring greater security and certainty to the airline industry. Yet it is anomalous and unfortunate that airports do not come within its terms of reference. It is as if Dr. Beeching had tried to "reshape the railways" without considering railway stations.

### technological change

Finally, it is important to remember that air transport is characterised by unusually rapid technological advances unmatched by any other transport mode. The supply conditions of air transport change rapidly and often induce equally rapid change in the nature and volume of demand. There is a very real danger that facilities which involve large long term investments may become obsolete in a relatively short time. Individual airports should be planning ten, fifteen or twenty years ahead and as far as possible should phase their development plans so that they can be adapted to changes in the requirements of the aircraft operators. But what effect will the supersonics or the hovercraft or the "jumbo jets" or some other development have on the air route pattern and the location and nature of airports? How many city councils have even considered the possibility of setting aside land near the centre of their cities for the future use of vertical take

off aircraft? These questions are too big for most individual airport authorities. They do not have the resources to tackle them. It would be a further function of a national airport plan to ensure that airport development took account of future technological and operational advances in the provision of air services.

### recommendations

At a time when air transport is booming and when numerous local interests and pressure groups are campaigning for more new airports, the dangers inherent in the present unplanned system multiply. A Labour government seriously intent on optimising the allocation of the nation's resources cannot allow this to continue. The role of air transport in the economy must be appreciated. Our airports must be planned as part of our transport infrastructure and integrated into regional and national economic plans. But there is neither the conceptual framework nor the administrative machinery to do this. Airport development has become a "free for all" in which each locality tries, according to its initiative and resources, to expand its own airport without regard to the actions or hopes of neighbouring airports or to any national plan for airport development.

The need is two fold. Firstly we must establish a national airport plan based on a spatial analysis of the demand for air transport. If this were related to technical innovations in air transport and to other transport developments it would minimise the risk of misinvestment. Most important, such a plan would allow airport development and the provision of air services to be fully co-ordinated. The second and more difficult task is to create the administrative framework within which the national airport plan could be realised. The highly sophisticated and integrated planning which must be envisaged would require fundamental changes both in political attitudes, and the administrative structure. The role and powers of the various authorities, public and private, involved in the provision of airports and air services must be carefully re-appraised.

# 3. the planning process

It is easy enough to state the need for a national airport plan. A wealth of evidence points to such a necessity. It is not so easy to outline the principles upon which such a plan should be based, for little thought has been given to this in this country. Basically airport planning involves, or should involve, three processes.

1. The future demand for air transport and the airport facilities which will be required to meet it, must be forecasted.
2. The technical characteristics of airports and air services and the effect which they may have on airport location and development must be considered.
3. Airports and air services must be co-ordinated with other sectors of the economy.

The goal to be kept in mind throughout is to minimise the risks of misinvestment while ensuring that air services in different parts of the country meet local needs. Although it is beyond the scope of this pamphlet to present a detailed national airport plan, it is possible to outline the various stages involved and the criteria which must play a part.

## forecasting regional air transport requirements

The prediction of future levels of demand for passenger and freight services is central to any plan. But the levels of demand will vary tremendously throughout the country. The first priority then is to forecast these regional variations. For, it is on the basis of these regional forecasts that existing airports should be expanded and new ones should be developed.

But predicting potential demand is fraught with problems. To avoid them most airport authorities do little more than extrapolate past traffic trends. But how do you project past growth rates in areas where there has been no air transport? Or in areas where air transport has been held back by inadequate airports or air services? Airport planning must

be based on future needs not on past inadequacies.

The demand for air transport, like other service industries, is determined by a variety of demographic, social, economic and political factors. Research both in the United States (John B. Lansing and Dwight M. Blood, *The changing travel market*, Institute for social research, University of Michigan, March 1964) and in this country (*Who travels by air?* Department of Transportation and Environmental Planning, University of Birmingham, 1967) has shown that the demand for air services in an area is directly related to such factors as the size of the population and the degree of urbanisation, disposable incomes, size of families, the volume and nature of business activity and trade, the economic functions of the area and the degree of surface competition. Regional variations in these factors, and perhaps others, can be used to forecast the potential demand for air transport in each region. Moreover, as more and more sectors of our economy are planned so it will become easier to forecast changes in population distribution or trade in any of the other significant variables.

The critical stage will be to convert the regional forecasts of these variables into forecasts of air transport requirements. Simple formula for doing this have already been suggested (R. S. Doganis, *The implication of the demand for air transport on airport planning for England and Wales*, unpublished). More subtle and accurate methods can certainly be developed and one of the first tasks of an airports planning authority would be to do this.

Having forecast the total air transport needs of each region or area, the next stage would be to consider in broad terms the nature of the traffic which would be generated. What proportions of it would be domestic, European, North Atlantic or inter-continental? And of the domestic how much would be for London or for the summer holiday routes to the Channel Islands and so on? This breakdown of future traffic would deter-

mine the type of airport and air service facilities required in each region. But the needs and developments of neighbouring regions would be co-ordinated and harmonised. For instance, three or four regions may be served by one inter-continental airport, but have smaller airports of their own. In this way an interlocking and hierarchical network of airports could be planned.

1. At the lowest level would be airports in remote parts of the country where the volume of air traffic will be very low but where air transport provides an essential "social service" linking these remote areas to larger centres of population and economic activity. Several such airports will be needed in the highlands and islands of Scotland, but there may well be a few elsewhere too.

2. Over most of the country the lowest tier will be the airports with purely domestic services. A high proportion of these will be highly seasonal cross-water holiday services to the fringe of holiday islands around our coasts. There will also be feeder services to the larger international airports and to the main centres of economic activity.

3. A smaller group of airports will, in addition, have adequate services to the more important European business and holiday centres.

4. At the top of the hierarchy will be three or four airports, more if necessary, which will serve as the major air transport centres in the country. They will have good domestic and international services and it is to these airports that the supersonic aircraft and the jumbo jets flying the long haul intercontinental routes will come.

In some parts of the country the potential demand would be so low that the establishment of an airport with scheduled services would seem quite unjustified. In others the demand may be such as to create a need for two or more airports. The above network relates to scheduled service airports. But, in addition to these, there would be a network

of general aviation airports which would handle private aircraft, air taxis and a few larger charter aircraft. Such airports are an essential feature of air transport and their development should be co-ordinated within the larger framework.

## technical factors

While the distribution of airports should broadly reflect the spatial distribution of the demand for air services, the actual sites will depend on the interaction of several technical factors. Many of the existing sites may not be ideal, yet they cannot be abandoned because too much capital has been invested in them. However, technical considerations will determine the degree to which they can be further developed. Thus the technical factors outlined below are significant criteria in airport planning both for the siting of new airports and the expansion of existing ones.

From the passenger's point of view the ideal location for an airport is one which minimises his journey time on the ground. This means that the airport should be as near as possible to its major catchment area(s). This requires either physical proximity or the availability of fast surface access facilities. Proximity to the catchment area, which in most cases will mean a large town or conurbation, must however be reconciled with the noise problem. Noise is critical in airport development, especially since, with the growing day time congestion at many large airports, the night hours are increasingly used. Thus to reduce the noise nuisance airports should not be near built up areas. The importance of ground journey time and noise as locational factors was clearly illustrated in the controversy over London's "third" airport.

The existing pattern of airports and of air traffic lanes must also be taken into consideration. Air traffic from a new or an expanding airport must not interfere with the holding area of another airport or with the flow of aircraft in air traffic lanes. Airports should not be so close

as to adversely influence their respective capacities because of air traffic control problems. If this happens, two airports in relatively close proximity may have no greater capacity than one. The air traffic lanes over South East England and the holding areas for Heathrow and Gatwick placed severe limitations on the possible sites for a further major airport in the London area. Clearly airport development must be closely attuned to air traffic control problems and to possible changes and improvements in procedures.

There are numerous physical factors which also play a part: temperatures, winds, visibility, the availability of firm, flat and well drained ground, and others. Land is needed not only for the airport itself, but also for housing and a host of ancillary services and satellite industries which spring up around most large airports. The runway approaches must also be free of natural and artificial obstructions so as to conform with air safety regulations.

Finally, close attention must be paid to the technical and operational characteristics of the aircraft which may be using each airport. The size and performance of the aircraft will determine the runway lengths and ground facilities required and will also affect the noise levels produced. Technological advances in air transport are particularly rapid and due allowance should be made for them, as far as this is possible, for they may have a dramatic effect on airport location.

Costs must also be considered. In broad terms they will depend on the size of the airport required and the kind of facilities with which it will be equipped. These will depend on the volume and nature of the potential demand for air transport. But for a given airport size the costs of alternative sites will be determined by their various technical advantages or disadvantages. A site which is ideal from the air traffic control and noise aspects and also has good weather and ground conditions, might require the construction of costly ground transit facilities to the nearest large urban

centre. Or, as in the case of the proposed development of a mammoth airport at Sheppey, expensive engineering works may be necessary if the subsoil is not firm.

## other sectors of the economy

The airport and air services developments foreseen in the national airport plan must be closely co-ordinated with developments and changes in other transport media. Ideally this should be done within the context of a national transport plan. But failing this it is still possible to ensure that airport developments take account of projected improvements and investments in surface media, especially on routes where these are likely to compete with air services. At the same time, improvements in surface transport can help air transport by reducing the journey times to and from airports.

In addition, airport plans must form an integral part of regional and national economic planning. Airports must not, as in the past, be planned in isolation. While the demand for air transport is determined by a variety of economic and social variables, there is a two way process at work. For air services may play a significant role in stimulating certain types of industry or tourism in undeveloped or depressed areas. They also have a social value in maintaining easy contact with remote areas.

Inevitably the question will arise as to whether airports or air services in certain parts of the country should be subsidised. Such a problem may arise where air transport though commercially not justifiable, may be considered to have some social value or may be needed to stimulate local employment and industry. Clearly, the social cost benefit techniques which have been developed and used for road and railway transport should be adapted and used to evaluate the net benefits to the community, if any, from such unprofitable airports and air services. If the benefits prove great enough, one could justifiably expect local or central government to subsidise the pro-

vision of air services in certain parts of the country. This could be done either by grants to the airports to enable them to reduce landing fees or by direct subsidy to the airline operator. The principle has after all already been accepted for surface transport in the July 1966 white paper on *Transport policy*.

### systems analysis

The authority concerned with the national airport plan would have to reconcile two sets of criteria. On the one hand, the general location of the nation's airports should be closely related to the potential demand for air transport in different parts of the country. On the other, the actual sites would be largely determined by the interaction of technical and economic considerations. To complicate matters the two sets of criteria are closely interwoven and often contradictory. Thus while noise and air traffic control requirements may mean siting an airport an hour away from a large conurbation, the lengthy ground journey involved may choke off the demand for air services to such an extent that the airport is no longer required.

But how can one reconcile so many complex and interrelated variables and produce a national airport plan? Only some form of systems analysis would enable us to do this. Systems analysis techniques have already been partially tried out for airport planning. For example, United Airlines in the United States developed a systems model several years ago to simulate the operations of a large airport (*Report of the second simulation symposium*, American Institute of Industrial Engineers, 1959).

It is not difficult to conceive of the airports in this country together making up a "system". This system would consist of a set of objects, both physical, such as runways, navigational facilities and terminals, and abstract such as profit levels or social policy. Relationships would exist between various objects and their attributes. The system operates within an environment made up of fac-

tors which cannot be controlled by the managers of the system. Such factors include population distribution, climatic phenomena, consumer tastes and the availability of land. The system would adapt itself to environmental changes in a way which would best suit the purposes for which the system was designed. Having conceptualised the system, the next step would be to build a model to simulate the real world. While it would not exactly reproduce the real world it would reduce the complexities of airport planning to manageable proportions.

The airports planning authority will also have to face up to the errors of the past. A national airports plan cannot be established in a vacuum. Many airports already exist in which large capital sums have been invested. In most cases it would be economically unjustifiable to abandon them for sites which might be technically preferable. Therefore, the final airport plan will be a compromise. But if based on the criteria outlined above, it should enable us to minimise the effect of past mistakes and maximise future opportunities.

Sceptics might argue that the planning processes which have been suggested are too complex and involve too many unknown variables. This may well be true. But they represent an ideal and, basically, a long term approach to airport planning. The above outline is tentative and may well have to be changed in the light of experience. But the need for a national airport plan remains unchanged. And even in the short run, before going through the complex processes suggested, an airports planning authority could bring about real improvements by rationalising the present pattern of airports and air services.

### ADMINISTERING THE PLAN

The administrative structure within which airports have grown since the war has made any kind of co-ordination or planning virtually impossible. This administrative structure must be changed. Until this is done attempts at planning



our airports have little hope of success. The Government should consider three alternatives.

### the US model

One would be a system similar to the one in the United States where a national airport plan is enforced through control of Federal aid. A five year airport plan, prepared by the Federal Aviation Agency, appears annually. Almost every town and community which already has or is deemed to justify the construction of an airport is listed. Certain developments are recommended for each one during the five year period. The Federal government will generally provide 50 per cent of the cost of non-revenue producing projects, but the remainder must be met by the local authorities. The critical factor is that acceptance of Federal aid means that an airport's future development must be restricted within the level established by the national airport plan.

This system of airport planning is worthy of consideration because it is already in operation. But it is only partially successful. This is because many smaller towns unable to meet their share of the capital costs have forfeited Federal aid, while several large airports have opted out of the aid programme in order not to have their expansion restricted in any way. Nevertheless, the national airport plan does provide a framework for the orderly development of the vast majority of airports. It also has the advantage of allowing the ownership and operation of individual airports to remain in the hands of local authorities and agencies. A similar but modified system might be applied in this country.

### a single tier authority

Another possibility would be for a public corporation, similar to the British Airports Authority, to take over and operate the major provincial airports. Secondary airports, providing largely feeder services to the major centres, together with a small range of summer holiday

services, could still be owned and operated by their existing owners. But their development would have to be strictly within the limits laid down by the national airport plan. The British Airports Authority is already vested with the legal authority to acquire and operate more airports, so this system could be brought into being relatively quickly. However, it would meet strong opposition from many local authorities which have spent considerable effort and money in developing their airports. Not only would they be loath to give up their airports, but they would also fear that a British Airports Authority would tend to favour the London airports and one or two of the largest provincial airports and discriminate against the smaller ones. These fears would increase if the British Airports Authority was also the body responsible for the national airport plan.

### a two tier authority

To allay these fears and to ensure continued local participation and involvement in airport development the better solution may well be a two tier administrative structure similar to the one recently proposed for the ports (*Transport policy*, Cmnd 3057, July 1966). A national airports authority would be the main planning and policy making agency and would be responsible for the development of the national airport plan. It would also be responsible for the selection of particular airports and projects for development, the policy on landing and other charges, and the relationship of the airport plan to national plans for transport and the economy as a whole. The airports would be administered by regional airport authorities who would have considerable independence within the guide lines laid down by the national airport plan. Ownership of individual airports would remain unchanged though the local authorities responsible for the airports in each region would be represented on the regional airport authority. Such a structure would allow for close co-ordination with other sectors of the economy both at regional and national level.

This two-tier structure appears to have many advantages, but all three alternative proposals should be fully considered before a decision is made. The financial arrangements, in particular, should be carefully looked into. Finance is the critical issue upon which the final solution of this problem hinges. The capital sums involved in airport development are very large and will tend to increase. Debt servicing will become a growing burden for local authorities. If they are expected to bear this burden they will want to maintain control of their airports. Equally, if central government financing increases the Exchequer might want tighter control. The other critical issue is whether the national planning authority should also be vested with direct control or ownership of the airports.

### conclusion

Whatever the solution decided upon there must be a central body with no vested interests of its own and with sufficient direct or indirect authority to enforce the national airport plan. Such a plan should ideally be part of a wider national transport policy or plan. The plan would aim at the co-ordinated development of both airports and air services, so that in each part of the country airport facilities and the air services available would be sufficient to meet local requirements, if these could be met without undue financial losses. Thus this central planning body must closely co-ordinate its functions with those of the route licensing authority (at present the Air Transport Licensing Board) or must itself be that authority. In either case, the route licensing authority should have considerably greater powers than those currently exercised by the Air Transport Licensing Board. In particular, airlines should be prevented from arbitrarily withdrawing services before their licence for that route had expired and the licensing authority should have power to direct airlines to operate certain routes which they may not have applied for.

The pamphlet has aimed to show that

a national airport plan is urgently required and that such a plan cannot be enforced within the present complex structure of airport ownership and responsibility. In recent years new planning bodies have been created both at the national and regional level and there is now an urgent need to consider where and how a national airports authority and plan would fit into the new administrative hierarchies which are being created.

# fabian society the author

The Fabian Society exists to further socialist education and research. It is affiliated to the Labour Party, both nationally and locally, and embraces all shades of Socialist opinion within its ranks—left, right and centre.

Since 1884 the Fabian Society has enrolled thoughtful socialists who are prepared to discuss the essential questions of democratic socialism and relate them to practical plans for building socialism in a changing world.

Beyond this the Society has no collective policy. It puts forward no resolutions of a political character, but it is *not* an organisation of armchair socialists. Its members are active in their Labour Parties, Trade Unions and Co-operatives. They are representative of the labour movement, practical people concerned to study and discuss problems that matter.

The Society is organised nationally and locally. The national Society, directed by an elected Executive Committee, publishes pamphlets, and holds schools and conferences of many kinds. Local Societies—there are some 80 of them—are self governing and are lively centres of discussion and also undertake research.

Enquiries about membership should be sent to the General Secretary, Fabian Society, 11 Dartmouth Street, London, SW1; telephone 01-930 3077.

Rigas Doganis is a lecturer in air transport economics at Birmingham University and is currently acting as UN consultant on civil aviation for various African countries.

Cover design and typography by Geoffrey Cannon. Printed by The Walrus Press Ltd. (TU), 769 Harrow Road, Sudbury, Wembley, Middlesex.

Standard book no 7163 0377 9.

# recent fabian pamphlets

## research series

180	Arthur Skeffington	Leasehold enfranchisement (revised)	3s 6d
233	Frederick Singleton		
	Anthony Topham	Workers' control in Yugoslavia	3s
235	Jack Cooper	Industrial relations: Sweden shows the way	3s
236	Laurie Pavitt	The health of the nation	3s 6d
247	a Fabian Group	A plan for incomes	3s 6d
248	Richard Pryke	Why steel	3s
252	Peter Mittler	The mental health services	3s
254	Michael Posner		
	and Richard Pryke	New public enterprise	3s
255	Jebs	Personal taxation	2s 6d
256	Elizabeth Allsopp		
	and David Grugeon	Direct grant grammar schools	2s 6d
257	Ken Jones and		
	John Golding	Productivity bargaining	4s 6d
259	a Fabian group	Arabia: when Britain goes	3s 6d
260	Lloyd Harrison		
	and John Roper	Towards regional co-operatives	2s 6d
261	Ken Hutchings	Urban transport: public or private?	3s
262 ed	A. Lester, N. Deakin	Policies for racial equality	4s 6d
263	Geoffrey Robinson	Europe: problems of negotiation	4s 6d

## tracts

321	Audrey Harvey	Casualties of the welfare state	2s 6d
323	Richard M. Titmuss	The irresponsible society	2s 6d
346	Thomas Balogh	Planning for progress	4s 6d
353	Brian Abel-Smith	Freedom in the welfare state	1s 6d
355	a Fabian group	The administrators	4s
361	L. J. Sharpe	Why local democracy	3s 6d
362	Jeremy Bray	The new economy	4s
363	K. W. Wedderburn	Company law reform	2s
364	David Downes		
	and Fred Flower	Educating for uncertainty	2s 6d
365	a Fabian group	Britain and South-East Asia	2s 6d
366	Norman Ross	Workshop bargaining: a new approach	3s 6d
369	Brian Abel-Smith	Labour's social plans	2s 6d
370	Richard M. Titmuss	Choice and "the welfare state"	2s 6d
371	Peter Townsend	Poverty, socialism and Labour in power	2s 6d
372	John Hughes	An economic strategy for Labour	4s 6d
373	a Fabian group	The trade unions: on to 1980	2s 6d
374	Brigid Brophy	Religious education in state schools	2s 6d
376	Neville Brown		
	and others	Has Israel really won?	2s 6d

## young fabian pamphlets

7	Howard Glennerster		
	and Richard Pryke	The public schools	3s 6d
10	a study group	Strangers within	3s 6d
11	a study group	Womanpower	3s
14	a study group	The youth employment service	3s 6d
15	David Keene		
	and others	The adult criminal	3s 6d