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Victory House
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25th August 1981

Euro-Route - Free Enterprise Road and
Rail Channel Crossing

Thank you very much for your letter of
20th August, together with its enclosure.

The Prime Minister would be glad to see
you and Mr Ian MacGregor in order to
discuss this project.

The Prime Minister has asked that Sir
Keith Joseph and Mr Norman Fowler should
also be present at the meeting.

My secretary will be in touch with yours
about a date as soon as this can be
arranged.

IAN GOW

FROM
SIR JOHN HOWARD, D.L., D.Sc., F.I.C.E.

VICTORY HOUSE,
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20 August 1981

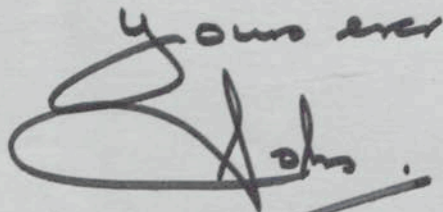
Ian Gow Esq MP
10 Downing Street
London SW1

Dear Ian.

As requested by Mr Ian MacGreggor, I am enclosing herewith a brief confidential memorandum on the EuroRoute project for the Prime Minister to see before the meeting with her, which you have kindly said you would arrange.

I hope this meets your requirements. I assume you have already had the brief version of the Scheme, but please let me know if you require further copies.

Kindest regards,

Yours ever


John Howard

EUROROUTE

Free Enterprise Road and Rail Channel Crossing

The EuroRoute proposal for a combined road and rail fixed channel crossing was conceived by Mr. Ian MacGregor (Chairman of the British Steel Corporation) and is based on similar successful fixed water crossings carried out at Chesapeake Bay (U.S.A.), Hong Kong and in other parts of the world. The main feature of its design is based on the modular system of prefabrication adopted for the building of the Mulberry Harbour in 1943 and its methods are now extensively used by oil companies operating in the North Sea.

The route to be followed would be from North of Folkestone to Cap Gris Nez. The EuroRoute system is a combination of 'above' and 'below' water construction which, for psychological and ventilation reasons, it is important to reduce to a minimum the length below water. Two large concrete islands built on the coast would be floated and sunk into position 19 Km apart, one each side of the main deep water shipping channel. Between these two islands submerged tunnel units would carry 4 road lanes for vehicular traffic and 2 rail lines. These two islands would be quite extensive and would be used for customs and other facilities.

From the English coast to the West Island the roads will be carried above water on viaducts and likewise from the East Island to the French coast.

It must be stressed that this is a free enterprise scheme financed entirely without relying on money from the taxpayer or from any nationalized industry.

It is known that the British Government is now considering several forms of a fixed channel crossing but an early decision is now awaited as to which project the British Government is going to encourage.

Will they choose :-

(a) a rail connection alone by tunnel (bored or submerged) without any provision for vehicular traffic, considered to be of limited usefulness
or

(b) a combined road and rail crossing such as EuroRoute which would cater

for the needs of the 21st Century and beyond, which if we are going to remain in Europe must be considered of importance.

If the crossing is left as a monopoly in the hands of the two Nationalized industries, the British and French Railways, both influenced by strong Trade Unions, there must always be a risk to the public and industry by interruption to a regular service and doubt as to whether it would be possible to operate an economic fare structure.

The construction of a bored tunnel alone would allow work being carried out only at its two ends and would throw considerable congestion on these two localities, particularly in Kent. It relies mainly on one type of labour and would do little to relieve the national unemployment problem. Moreover its construction could be easily disrupted by industrial action, delaying completion and increasing the cost of financing it.

The EuroRoute, although more costly, is a complete answer to the channel crossing problem. It is designed on the unit or modular form of construction, a method well tried by the construction industry and would not disturb unduly the environment of Kent as the design enables units to be built round the coast of England, Wales and Scotland (and to a lesser extent in Northern Ireland) and mainly at many different places of high unemployment. These units, in steel and concrete, are built at many points round our coast, towed by water and correctly sunk in position on the site of the channel crossing thus largely relieving construction traffic on our roads.

This dispersal system of construction involves many small firms as well as large in the construction and general engineering industries and because of its wide national spread can be less affected by strikes or industrial disputes and brings in greater competition to cheapen the work.

On the question of employment our experts have made a close study of the extra labour required for carrying out this project on a dispersal basis and they estimate that throughout its 4 year construction period it would employ an average of an additional 100,000 men and women on the U.K. side alone and to operate the scheme afterwards 1,000 persons would be required. Whilst the final design has still to be completed it is sufficiently far advanced now for close estimates of the final cost of completion to be made and, what is equally important,

to state that the work can be started and sub-contracts placed before the end of 1982 provided a government policy decision is reached by October, 1981.

Discussions with British Rail have taken place over the past 12 months and our offer to them is to build a twin rail track in a submerged tunnel from Folkestone to the French coast (to link with Paris and Brussels) and as well to build the new London terminal which they say will be required, all free of capital cost to them. When completed the railways would lease the facilities from the EuroRoute Operating Company. British Rail are attracted by these proposals.

Monopoly. It is realized that the British Government, before granting what amounts to a monopoly to private enterprise, would want to safeguard the users position for the future. Presumably an Act of Parliament would be required into which a toll and fare structure would be incorporated and if necessary a date provided for the future when the assets of the EuroRoute Operating Company would revert to the British and French Governments. Although the Governments might require representation on the operating company's board, it should be understood that since private enterprise will be carrying all the risks it must, within reasonable limits, be allowed to get on with the job and planning facilities as far as they are required must be forthcoming without delays.

It is realized that the Dover Strait is one of the busiest shipping lanes in the world, therefore the EuroRoute crossing is designed to meet the requirements of the Inter-Governmental maritime Consultative Organisation (I.M.C.O.) particularly to enforce the traffic separation scheme now in existence. Navigation and monitoring aids will be provided on an extensive scale to give warning of the crossing and to increase safety, emergency craft will be stationed at or near the Crossing to give assistance, something which is not in existence today.

The Capital Cost of the EuroRoute project, that is for a combined structure to carry both road and rail, at 1980 figures is estimated to be £3.8 bn allowing for reasonable contingencies. Traffic forecasts have been carefully made and rechecked and the promoters' expert advisers are satisfied that this is a sound commercial proposition provided that it is free enterprise controlled. Messrs. Lazard Brothers of London, who have advised EuroRoute since its inception are satisfied that this can be financed in the London, Paris, Brussels and New York markets without recourse to public funds provided there is

Government assurance that once work has started it will be allowed to be completed. They believe that it will be easier to finance because its construction is less likely to suffer from industrial disruption and can be brought into use in a shorter time. As far as the European Parliament is concerned, all U.K. members of the three political parties have had details of the project and many have expressed their support for it.

The Technical Advisers to the EuroRoute project are :-

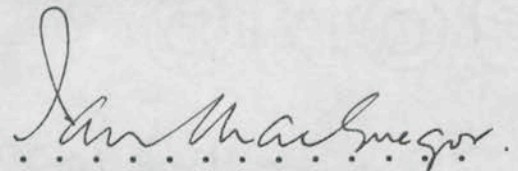
Finance -	Lazard Brothers & Co. Ltd.
Engineering Studies -	Mott Hay & Anderson.
Traffic and Revenue -	Coopers and Lybrand Assoc. Ltd.

The following firms are promoting EuroRoute and some have given much of their skill in perfecting the scheme :-

Redpath Dorman Long Ltd.	British Shipbuilders Ltd.
Robert Mac Alpine Ltd.	Boots Railway Engineering Ltd.
John Howard & Coy Ltd.	Technip S.A., Paris.
Fairclough Construction Ltd.	Zanen Verstoep N.V., Holland.
Trafalgar House Ltd.	Raymond International Ltd.

Full details of the EuroRoute Scheme was placed before the Minister of Transport in March 1981 and a brief version of the Scheme is attached herewith.

Because we believe that this project is of such great National and European importance and would enhance the prestige of the present Government for its imaginative concept and for the fact that it must have a very stimulating effect on employment, starting we would hope before the next General Election, it is considered right that its details should be brought to the notice of the Prime Minister.



18th August, 1981.

2018/81



Road and Rail Channel Crossing

Proposal in brief

May 1981

EUROROUTE

PROPOSAL IN BRIEF

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1. INTRODUCTION

The EuroRoute Proposal for a combined road and rail fixed Channel crossing is put forward by a consortium at present led by the British Steel Corporation and Redpath Dorman Long Limited. A Joint Venture of firms is at present being formed.

The advisers to the Group, who have been involved in the preparation of the Proposal, are:

Finance	-	Lazard Brothers & Co., Limited
Engineering Studies	-	Mott, Hay & Anderson
Traffic & Revenue	-	Coopers & Lybrand Associates, Limited

The EuroRoute crossing will be of major and practical benefit to the U.K. and her European partners. The design is the single most effective combination of road and rail facilities. It is planned to meet the current and future needs of business and leisure travel and freight transport between Britain and Europe - the country's largest and fastest growing market. By providing both a road and rail crossing, maximum flexibility of this international asset will be ensured to cater both for future needs and for changes in the relative costs of different methods of transport.

The EuroRoute design has been developed after intensive research and satisfies the various technical problems raised by a fixed cross-Channel link. Built within the scope of available technology, the prefabricated structure will allow work to be spread over a number of locations and then assembled on site, maximising employment opportunities and reducing to a minimum the risks of increased costs and production delays. These factors should assist in the obtaining of private financing and thus contribute to reducing difficult decisions about public expenditure. The EuroRoute offers social and economic advantages without cost to the public purse or to the environment.

At all stages security has been a prime consideration. Security of design, security of financing, protection of the user, safety of shipping and the use of standard construction techniques have contributed to this aim. The provision of road and rail alternatives enables management to be split into two separate entities, preventing problems of monopoly control.

The positive benefits of a Channel crossing are potentially enormous, but to realise them it is essential that any cross-Channel link should provide the most effective access to all users and meet in full the needs of the present and the future. The EuroRoute is the most effective answer to those needs.

The project is described in detail in the document entitled "EuroRoute - Proposal for Road and Rail Channel Crossing", submitted to the Department of Transport in March 1981. The following pages describe the proposal in brief.

2. DESCRIPTION OF SCHEME

The EuroRoute crossing is designed to provide a fixed Channel link for both road and rail traffic.

The crossing incorporates two 2-lane carriageways and two rail tracks. The railway is carried in submerged tube tunnel throughout the crossing. The road carriageways are carried on twin viaducts across the inshore shipping zones of the Channel, and in a common submerged tube tunnel structure with the railway beneath the main shipping lanes. The transition for road traffic from viaduct to tunnel takes place within offshore artificial islands constructed at the boundary of the main shipping lanes.

The overall length of the crossing, excluding onshore approaches, is approximately 36km. The central tunnel section beneath the main shipping lanes is approximately 19km long.

Viaducts rather than tunnels are employed to carry the road across the inshore zones so as to minimise the length in tunnel. This will keep the tunnel section within known limits for driver reaction and allow a sufficiently rapid response time for emergency services.

The twin viaducts will be approximately 1km apart and will each carry one carriageway of the road. This arrangement will ensure that the crossing can be kept open to traffic even in the unlikely event of a ship colliding with one viaduct. Inshore shipping will be served by special navigation openings, at which increased spans and clearances will be provided.

In addition to the main offshore islands at the boundaries of the shipping lanes, three intermediate islands will be constructed to carry ventilation shafts down to the central section of the tunnel. Two of these ventilation islands will be in line with existing sandbanks in the Channel.

The alignment has been fixed in principle to give the most suitable connections with existing and planned motorways and railways in England and France, while providing feasible conditions for construction in the Channel (see Drawing No 1).

Proposals at the English coast and inland are designed to have virtually no effect on the environment of Kent. The inshore viaducts reach the coast at low level at Abbot's Cliff, and the road is then carried inland in tunnel as far as the Alkham Valley, where it joins the proposed A20 improvement road between Folkestone and Dover. The A20 will link directly to the M20, and thence to the M25 orbital motorway around London. The railway is carried from the coast to Holywell, just north of Folkestone, in tunnel and will then follow the route envisaged for a rail-only Channel crossing as far as the existing main line between London and Dover.

In England, no major surface roadworks beyond those proposed in the Government's 1980 White Paper on roads will be needed as a result of the crossing.

The present study has not investigated in detail the planning of road and rail links in France, but it is envisaged that no serious difficulties in locating suitable routes to conform with planning and environmental requirements will arise.

The combined road and rail crossing will provide adequate capacity for the foreseeable future as well as considerable operational flexibility.

3. FORM OF CONSTRUCTION

The greatest possible use will be made of prefabricated modular construction. The major benefits of this will be firstly in allowing fabrication to be spread widely over various locations in the U.K. and continental Europe, including existing yards and dry dock facilities (c.f. Fig. 11.1), and secondly in giving a substantially reduced period of construction by allowing work to be carried out simultaneously at many different points.

Modular construction is proposed for the viaducts, submerged tunnels and structural cores of the artificial islands. The large prefabricated units will be brought to the site of the crossing from the fabrication areas by sea.

Road Viaducts

The viaducts consist of a series of simply supported spans, each 125 m long. Piers are formed from large diameter steel or concrete cylindrical piles, driven or drilled into the seabed. The piles are connected by a cross-head above water level, which supports the bridge deck units. These units consist of prefabricated steel boxes, with orthotropic plate decks carrying the roadway.

The 125m long bridge deck units will be prefabricated complete at coastal sites or shipyards before being launched, and towed by sea to site. They will then be lifted out of the water, cleaned and painted, and carried by barge to be placed in their final position by floating crane.

The level of the viaducts will be such that the soffits are well clear of the highest predicted wave. The soffit level is currently planned to be 15m above mean high water, subject to detailed consideration of shipping and safety requirements. At the navigation openings for inshore shipping, special spans will be provided. The viaducts will rise locally to give at least 35m clearance above mean high water at these spans.

Submerged Tunnels

Both the rail-only submerged tunnel across the inshore zones of the Channel and the combined road and rail submerged tunnel across the central zone will be formed from 125m long concrete elements, cast individually in special basins. The elements are designed to be buoyant, and are floated on completion by flooding the casting basins. They are then towed to the site of the tunnel by sea.

At the site, the elements are sunk onto a prepared bed and joined to form a continuous tunnel structure. They will be located either on the seabed or in trench below the seabed, depending upon local conditions.

The tunnels will be heavily protected and armoured to ensure that damage from any cause cannot occur.

This form of construction technique has already been adopted in other parts of the world to give an economic method for building sub-aqueous tunnels.

Offshore Islands

Following the considerable experience gained by British contractors with the placing of very large structures in the North Sea, it is proposed that the two main offshore islands and the three

intermediate ventilation islands should be constructed by placing a large central concrete element, forming the island's core, on the seabed. This will then be surrounded with rock and hydraulic fill to form sloping protective flanks to the islands. The flanks will be heavily armoured. In the case of the main offshore islands, these units will be built up from large sub-assemblies, and will contain the spiral ramps carrying the roads between viaduct and tunnel levels. The British main offshore island will be extended by the placing of additional hydraulic fill to give a surface area sufficient for the location of frontier and toll facilities on the island (this will avoid the environmental disadvantages of locating these facilities on the mainland in Kent).

Feasibility of Construction

Initial discussions with the Hydraulics Research Station at Wallingford indicate that hydraulic effects arising from construction of the artificial islands, tunnels and other works in the Channel should not be unduly difficult to deal with, although detailed model testing will be necessary to confirm this.

The plant and equipment required for construction in the Channel are within available technology, and, where not already in commission, may be designed and built in the periods of time allowed in the project programme.

Tunnel Ventilation

The tunnel ventilation system for road traffic will be designed to cope safely with the worst conditions created by exhaust fumes with the crossing operating at full capacity. The scheme proposes the use of the railway tunnel in the central section as a fresh air inlet duct: preliminary calculations indicate that this concept, which reduces capital costs appreciably, is feasible. Fresh air will be introduced and exhaust air expelled at the three intermediate ventilation islands and the main islands.

Additional ventilation to deal with railway requirements, including emergency conditions, will be provided.

4. CONSTRUCTION PROGRAMME

A four phase programme is proposed for development and construction of the project. Phase I will cover detailed studies to

confirm the feasibility and cost of the project, and legislative documents will be drawn up. In Phase II, legislative powers will be obtained and detailed design and preparatory work will be carried out. The preparatory work will include the construction of accesses, working sites and casting basins and the ordering of long lead items. Phase III will cover the main construction of the crossing up to the opening of the first road carriageway to traffic. Provided that all necessary preparatory work is carried out in Phase II, Phase III may be completed in the very short period of 4 years. During Phase IV, the railway and the second road carriageway will be constructed and opened to traffic.

On the assumption of the deposit of a Bill in Parliament in late 1982, with Royal Assent following in August 1983, it is estimated that the first roadway could be opened to traffic in early 1989.

5. SHIPPING AND NAVIGATION

The Dover Strait is one of the busiest waterways in the world, with up to 500 shipping movements per day. Shipping is regulated by a traffic separation scheme, requiring through traffic to keep within defined lanes. The present scheme is contravened frequently, and shipping accidents occur, although their frequency has been reduced markedly since the introduction of the separation scheme.

The EuroRoute crossing is designed to meet the requirements of the Inter-Governmental Maritime Consultative Organisation (IMCO), and particularly to facilitate enforcement of the traffic separation scheme. In particular, the artificial islands are located in such a way as to delineate the lane boundaries in the central section of the Channel. In addition, lane discipline will be imposed on all but the smallest shipping in the inshore zones. These measures will reduce very considerably the possibility of contravening the separation scheme, and will lead to an increase in safety. The reduction of cross-Channel ferry movements resulting from construction of the scheme will also have a major effect in reducing collision risks.

Navigation and monitoring aids will be located at the artificial islands and elsewhere to assist ships on passage and to give

warning of the presence of the crossing. Emergency craft will also be stationed at or near the crossing to give assistance to vessels in difficulty.

6. ENVIRONMENT

The EuroRoute scheme has been planned specifically to minimise environmental impact, and it is expected that the overall result of the scheme will be to improve rather than worsen the effects of traffic on the environment in the general area of the approaches to the crossing. In particular, it may be noted that, in England, all the roads necessary to carry traffic to the crossing are already planned or under construction, and the scheme will tend to concentrate traffic on motorways properly designed with adequate capacities and reduce traffic on overloaded local roads. In addition, the most difficult facilities to locate in England because of land requirements, namely the toll and frontier facilities, are planned to be at the British main offshore island. In France, the combined road and rail crossing is expected to bring important benefits to the depressed regions of Pas de Calais and beyond.

The most sensitive area affected by the crossing is the rural landscape at the English coast, designated as an area of outstanding natural beauty. This area will be traversed by the road and rail approaches mainly in tunnel, and environmental intrusion as a result of the scheme will be kept to a small level. At Abbot's Cliff, where the crossing meets the coast, the viaducts will be as low as possible to minimise their visual effect in comparison with the great scale of the cliffs: at this point the cliffs are approximately 140m high, whereas the height of the top of the viaducts will be about 15m above sea level.

Rail facilities onshore will require similar land areas as for rail-only Channel crossing schemes. No new rail links to the crossing are envisaged in England.

7. OPERATION AND CONTROL

The road and rail sections of the crossing will be operated entirely independently for normal running. Road traffic will be controlled from a main control centre at which traffic conditions, equipment status and alarm systems will be monitored. This centre will be in contact with the police and other authorities, and will be able to initiate action in an emergency.

The railway will be operated from two control centres, one in England and one in France. In certain types of emergency, in which common operation of the road and rail facilities was required, overall control would revert to the main control centre.

Emergency personnel and equipment will be available to deal with fire, accident or breakdown. Evacuation of the rail or road tunnels can be carried out in safety. The ventilation system and other facilities will be designed to provide safe conditions in all emergencies.

Crossovers will be provided at either coast and at the main offshore islands to allow traffic to change from one carriageway to another, or to be directed back to the coast if a section of the crossing had to be closed in an emergency.

Various precautions, including the installation of internal and external surveillance devices, will be taken to minimise the risk of sabotage. The various structural elements will be designed specifically to maintain their integrity in an attack.

8. COST ESTIMATES

The capital cost of construction of the crossing at mid-1980 prices is estimated to be £3,800 million. Expenditure up to the completion of Phase III and the opening of the first roadway to traffic is estimated to be £2,850 million.

The cost attributable to the rail-only elements of the crossing is estimated to be £650 million.

The proposed scheme is capable of modification and reduction in scale to accommodate a single rail track only. In this case, the total estimated cost of the crossing is £3,600 million.

9. TRAFFIC AND REVENUES

Traffic forecasts for the EuroRoute crossing have been made by Coopers & Lybrand Associates, based partly on work completed in 1979 for the European Commission and partly on new work commissioned for this proposal. Forecasts take account of alternative growth rates for the UK and continental Europe, changes in relative pricing between road and rail transport, changes in journey characteristics and other relevant factors, and give a relationship between external economic factors and demand for travel and freight haulage. Projected traffic on the EuroRoute crossing in the year 2000 is, for the central (low growth) case, 19.1m passengers and 12.9m tonnes of freight. For the high growth case, the projections for the year 2000 are 27.5m passengers and 19.6m tonnes of freight.

On the central case hypotheses, the road capacity of the crossing is reached in about the year 2025. At this time rail capacity is not expected to be fully used, and further rail growth could take place.

On the basis of the revenue forecasts derived from the central case traffic projections, the internal rate of return of the scheme in real terms (i.e. after allowing for inflation) is estimated to be 7%. Sensitivity calculations show that this rate of return is robust to variations in revenues, costs and construction over-runs.

10. FINANCE

Lazards are financial advisers to the EuroRoute Group and to the Proposal and have exceptionally wide international connections and experience with major capital projects.

This Proposal is bigger but simpler than its competitors. It can be built more quickly, with work spread to many locations and employs simple, well proven techniques with minimum risks - these factors will be attractive to providers of finance.

It must be a matter of judgement what balance to strike between reduced risks, greater costs, shorter construction and other factors. A three-stage building programme in which the over-

whelming proportion of the finance is committed just prior to the second stage (Phase III) while an initial commitment of some full risk money is made prior to completion of legislative, Treaty and other formalities, will dramatically advance the date when the facility can be brought into service.

Equipment and supplies could be sourced almost throughout Europe and may easily be directed to and generate employment in distressed areas in England and France.

The advanced but simple technical solutions incorporated in the Proposal, and its considerable capacity to accept growing and changing traffic patterns, assure the cash flow required.

The main national and international potential sources of money have been reviewed. It is suggested that Governments are unlikely to be willing to give the concessionaires unlimited rights indefinitely to exploit a de-facto monopoly, and that, consequently, conventional distinctions between "debt" and "equity" may be blurred.

While the attitude of the French and British Governments will be of paramount importance, the support of the EEC and of others will also be crucial. At least an Anglo-French Treaty will be necessary, in addition to the domestic enabling legislation.

An Owning Entity need not necessarily be owned by the Governments, nor by the contractors nor by the Managers. Nor need ownership and control run together. It is too soon to anticipate the final commercial, legal and financial structure, but provided that the political decisions in London, Paris and Brussels are sufficient, it is considered that the EuroRoute Proposal could be financed without any necessary recourse to public funds.

11. EMPLOYMENT AND RESOURCES

Total employment in the construction, shipbuilding and construction-related industries is estimated to be over 260,000 man-years. Overall employment, including subsidiary

employment generated as a result of the project's construction, is estimated to give a total employment figure for the full construction period of over 500,000 man-years. Average employment will reach over 100,000 per annum.

The modular form of construction and phasing sequence proposed mean that major employment will be generated very rapidly after final commitment to the project.

As a result of the major distribution of work over a wide range of locations made possible by the large element of prefabrication, employment during construction at the British and French coastal sites will be comparatively small. The combined workforce at these sites is estimated to be no greater than 12,000 per annum at the peak.

Some of the possible sites for fabrication and quarrying in the UK are shown in Figure 11.1.

EUROROUTE ROAD & RAIL CHANNEL

● CROSSING

- Casting basin site
- ▲ Shipyard/steelwork fabrication site
- Quarry site



SOME OF THE POSSIBLE SITES FOR FABRICATION & QUARRYING IN THE U. K.

Figure 11.1

Washing box

British Railways Board



**CROSS
CHANNEL
RAIL LINK**

April 1981

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Introduction

The debate regarding the creation of a fixed link between England and France continues. The Select Committee on Transport has recently published a report on their analysis of the whole issue although the final decision as to whether such a fixed link should be provided and if so what form it should take must however rest with the British and French Governments themselves.

This brochure outlines the scheme for such a link proposed by British Railways as representing a technically sound and financially viable means of linking the railway systems of Britain and the Continent. It corresponds closely with the preferred solution of the Select Committee and will, in the view of the railways enable them to provide on a profitable basis, a greatly improved standard of service for passenger, freight and parcels traffic. At the same time, it will have a minimal effect on the environment and on the established pattern of employment in the areas concerned.

The relevant technical and economic studies leading to these conclusions have been carried out jointly with both the French and Belgian railway authorities.

The recent work confirms the findings of earlier preliminary work on the scheme (results of which were published in Britain in 1979). However, it has also underlined the fact that whilst the construction of the actual tunnel is unlikely to present any serious difficulties, particular attention must be given to the way in which such a tunnel is linked with the existing transport infrastructure of the two countries. As a result the railways have devoted a great deal of effort to an examination of these aspects and they are confident that they are presenting a complete scheme covering the full implications of moving both passengers and freight from origin to destination, and not merely one which deals with the Channel crossing in isolation.

The Market

There has been a very substantial increase in passenger and freight traffic across the Channel over the last decade and this increase has taken place largely in air traffic, accompanied cars and roll on/roll off freight. Considerable advances have also been made in rail business and further developments are planned, but the scope for these must always be limited by the need to change modes at the two Channel ports.

British Rail has carried out, with the help of a number of experienced independent firms of Consultants, a detailed analysis of the market for Cross Channel traffic – both passenger and freight and all the indications are that despite current economic difficulties, the underlying trend is one of continuing growth. From this base, forecasts have been made of the amount of passenger and freight traffic that will be attracted to through rail services via a tunnel.

Forecast Traffic Levels

Traffic	1990	2000
Passengers (millions)	6.2*	7.9
Freight (million tonnes)†	5.1	6.1
Parcels (tonnes)	4,300	12,900

Notes

*The calculations indicated that passenger carryings in 1990 would be in the range 6.2m–7.0m; the lower figure was adopted for the purposes of the study.

†The vast majority of freight traffic between the UK and Northern Europe has been excluded from the potential, although diversion of some of this traffic to the Tunnel is conceivable. To allow for the build up of traffic following the opening of the Tunnel the forecasts for 1990 and 1991 have been reduced.

Charges

It is not possible – some eight to ten years before the opening date – to be precise as to the level of passenger fares or freight rates that will be applied to through rail services via the Tunnel. Much will depend on the market conditions applying at the time. However, the following are the principles on which the project has been evaluated:

Passenger

There will be a wide range of fares, ranging from bargain fares for special

groups to first class fares for business travel. *In real terms, they will be well below comparable air fares.*

Freight

The market for freight traffic is highly volatile, but in general, operators' costs are bound to increase at least in line with general trends. Competitive pressures will continue and it has been assumed that *rates for transit via the tunnel, in real terms, will be below those available by existing means at the present time.*

Proposed Services

General

The fact that the project provides for only a single line railway obviously means that special operating arrangements have had to be devised. The train service through the tunnel will be operated by means of a system of 'convoys', each consisting of some 10 trains in one direction, followed by a similar number of trains in the opposite direction.

In order to make the most efficient use of this system, both passenger and freight trains will be scheduled to operate in the tunnel at roughly the same speed and will complete the journey from one end to the other in just over half an hour. The capacity of the tunnel will be 60 trains (passenger and freight) per day in each direction, although in the light of experience scope may be found for some increase in this number as traffic develops over the years.

Provision has been made to close the tunnel for six hours each night in order to ensure a high standard of maintenance.

Passenger

A basic service of passenger trains composed of specially constructed modern rolling stock will operate between London and Paris and London and Brussels (via Lille), giving best journey times as follows:

London-Paris	4½ hours
London-Lille	3 hours
London-Brussels	4¼ hours

An indication of the type of service that will be possible is given on the opposite page.

Passengers travelling to and from south-east Kent will be able to join or alight from certain through trains at a station on the Southern Region main line near Folkestone.

A number of night sleeper services will operate between Folkestone and a number of continental centres with connecting services to and from London. In addition there will also be motorail services between Folkestone and certain Continental centres.

Freight

Direct trains of wagons and containers will operate between centres in Great Britain and the Continent, eliminating the costs and delays caused at present by the need to change modes of transport at the ports. BR's Freightliner and Speedlink services will thus be integrated with those of their counterparts on the Continent, and together they will be able to offer a greatly improved standard of service to the customer.

Special arrangements will be made for traffic to and from either south-east England or northern France by the provision of facilities for the transfer of containers from road to rail, and vice versa, at Folkestone and Lille.

Parcels

Parcels traffic, carried in passenger trains, will have the benefit of a rapid, reliable direct service between the capital cities and the popular 'Red Star' service will, in effect be extended to include important Continental destinations.

Proposed Services

Notional Timetable of Basic Passenger Service at Opening

London	Brussels	Paris	Paris	Brussels	London
dep.	arr.	arr.	dep.	dep.	arr.
06.50	—	12.20			
06.55	12.05	—			
09.05	—	14.35	07.25	—	11.00
09.20	—	14.50	—	07.50	11.05
			07.40	—	11.15
09.25	14.40	—			
09.45	15.00	—	—	08.15	11.25
09.50	—	15.20	10.25	—	13.55
09.55	15.05	—	—	10.50	14.05
12.20	—	17.50	10.40	—	14.15
12.25	17.40	—	—	11.15	14.25
12.50	—	18.20	13.25	—	16.55
12.55	18.05	—	—	13.50	17.05
			13.40	—	17.15
15.20	—	20.50	—	14.15	17.25
15.25	20.40	—			
			16.25	—	19.55
15.50*	—	21.20	—	16.50	20.05
15.55	21.05	—			
			—	17.15	20.25
17.50	—	23.20	16.55	—	20.35
17.55	23.05	—	19.00	—	22.25
18.10*	—	23.40			
18.20	—	23.50			
18.25	23.40	—	—	19.15	22.30
			19.15	—	22.55
			—	19.50	23.05

All times are local and assume that Belgian and French time will continue to be 1 hour in advance of British time through the year.

* Alternative timings in the light of the demand at the opening date.

Safety

In view of the unique character of a single track tunnel of this length, a special study has been made of the different aspects of safety.

The whole question has been the subject of consultations with the Secretary of State's Chief Inspecting Officer, and further detailed discussions will take place prior to the opening.

The Scheme

The Tunnel

The railway scheme for the tunnel itself provides for:

- (i) A single track railway tunnel with a diameter of around 6.0m linking Holy Well (near Folkestone) in England with Beussingue (near Calais) in France. It will be capable of accepting all standard Continental gauge rolling stock;
- (ii) A pilot/service tunnel of 4.5m diameter running parallel with the main tunnel and linked to it by cross passages.

Both tunnels would be bored by machine through the strata of lower chalk and lined with prefabricated concrete segments. This is a well tried technique and particularly suited to the geological conditions under the Channel which have been extensively surveyed over the years.

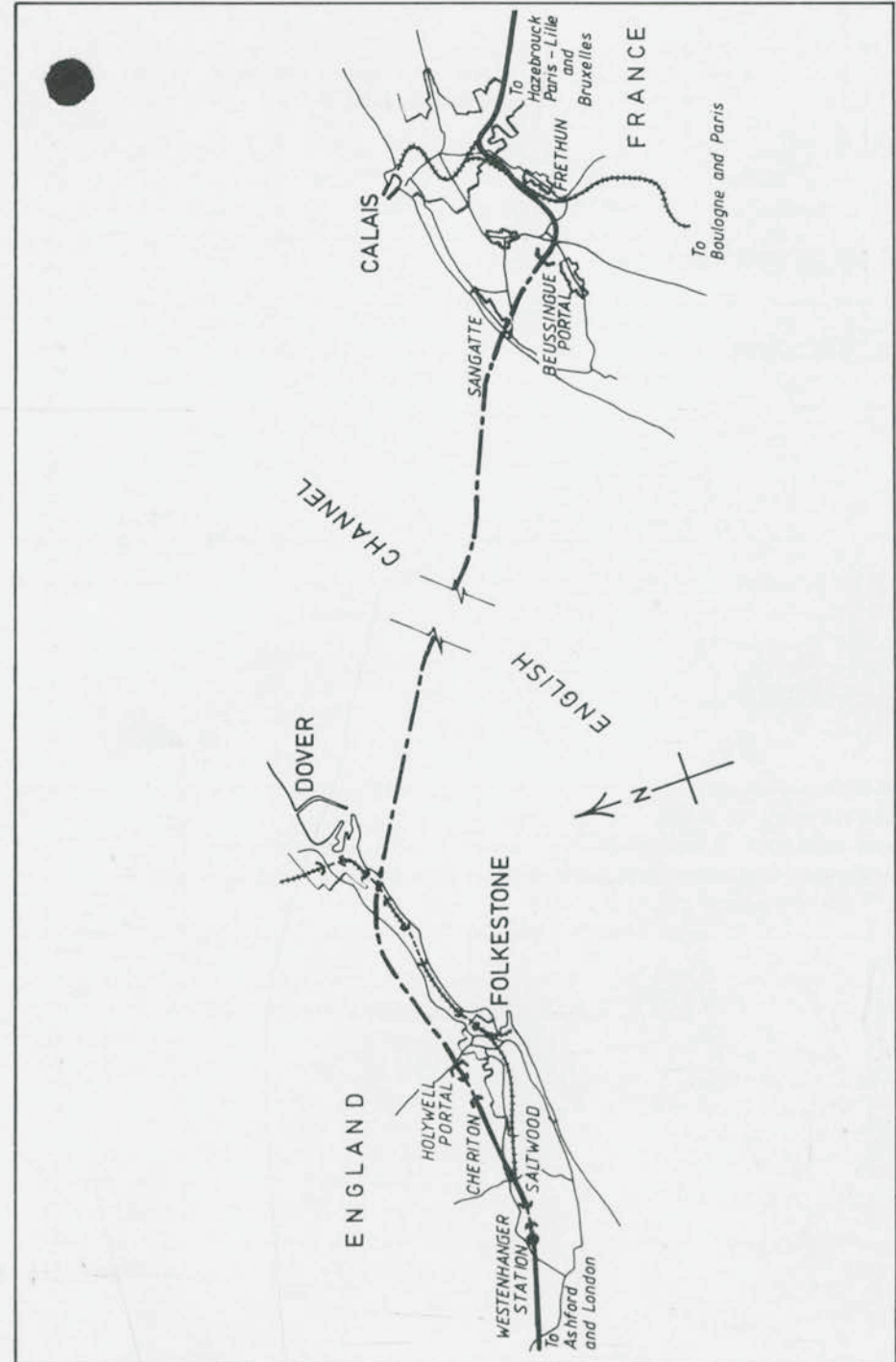
The construction will incorporate all the necessary safety and other devices necessary for the efficient and safe operation of the railway and in particular, equipment will be installed to give early warning of any untoward incident, either in the tunnel itself or on any of the trains.

Installations at the British Portal

There will be a number of installations at or near the tunnel entrances not only to provide links with the existing railway lines of the British and French railways, but also to ensure the efficient operation of the tunnel itself. In England it will be necessary to provide:

- A road/rail Container transfer terminal for traffic to and from Kent and Sussex;
- A number of holding sidings and a maintenance depot;
- A passenger station, for interchange with local services and for international long distance sleeper and motorail services.

Current plans assume that the majority of these facilities will be located at Cheriton (on the site originally proposed for the terminal in the previous major scheme) with a passenger station at Saltwood, the point at which the tunnel line will join the existing Southern Region main line. Detailed consultations have taken place and are continuing with the County and Local Authorities concerned regarding the scope and precise location of these facilities.



The Scheme

Other railway facilities within the UK

The existing railway facilities on the Southern Region are, in general, fully committed to existing services and, whilst the withdrawal of the boat trains will release sufficient line capacity, it will be necessary to provide for an improvement to the terminal facilities in London. The present plan is that a number of the 'business' services will use the existing station at

Victoria, but that it will be necessary to deal with the residue which should then follow on at some other location. A number of different sites have been examined and the whole question is at present the subject of detailed consultation with the Local Authorities and other interests involved; no final decision will be taken until his process has been completed.

Capital Costs

The table below sets out at end 1980 price levels, the total capital costs of the tunnel and of the associ-

ated works so far as Great Britain is concerned:

Item	Cost (£m)
Total cost of tunnel and fixed equipment	765
Cost of associated infrastructure adjacent to British Portal (including land costs)	83

It should be noted that the cost will be spread over a period of about seven years and so far as the tunnel is concerned will be shared between Britain and France.

Financial Evaluation

The evaluation carried out to assess the return on the total capital and operational costs of the tunnel, its associated fixed equipment and of the installations at the portals shows a rate of return, in real terms, of just below 10%.

A number of sensitivity tests were applied to the results and these showed that the project is financially robust and can stand quite major variations in the estimated levels of costs and receipts and still give an attractive rate of return. Some indication of this can be seen in the following examples:

Assumption	Internal Rate of Return
Base Case	9.5%
<i>Receipts</i> 20% Shortfall in total receipts 10% Improvements in total receipts	7.9% 10.3%
<i>Capital Cost of Fixed Works</i> 20% Increase in costs	8.2%
<i>Construction Time</i> Two years delay in completion	8.6%

Energy

A further bonus from the project is the opportunity for fuel conservation. Already, it is widely accepted that electrified railways, using power generated from a variety of sources, will play an increasing role in freight and passenger movement as oil becomes scarcer and still more expensive.

The Channel Tunnel forms part of this energy-saving strategy for the future. It takes four times the amount of fuel to carry a passenger between London and Paris by air than it will by train through the tunnel, and compared with road, through freight trains via the tunnel will offer a two to one advantage.

Regional Effects

A tunnel linking England with France must, for obvious reasons be located in the south-east of England, but it should not be thought that benefits will be limited to this part of the country. Whilst the basic daytime passenger service will run between London and Paris and Brussels, connections will be available with the rest of the Inter-City network and the forecasts show that some two million passengers from and to areas north and west of London will benefit from the improved facilities which will reduce overall surface journey times by at least two hours.

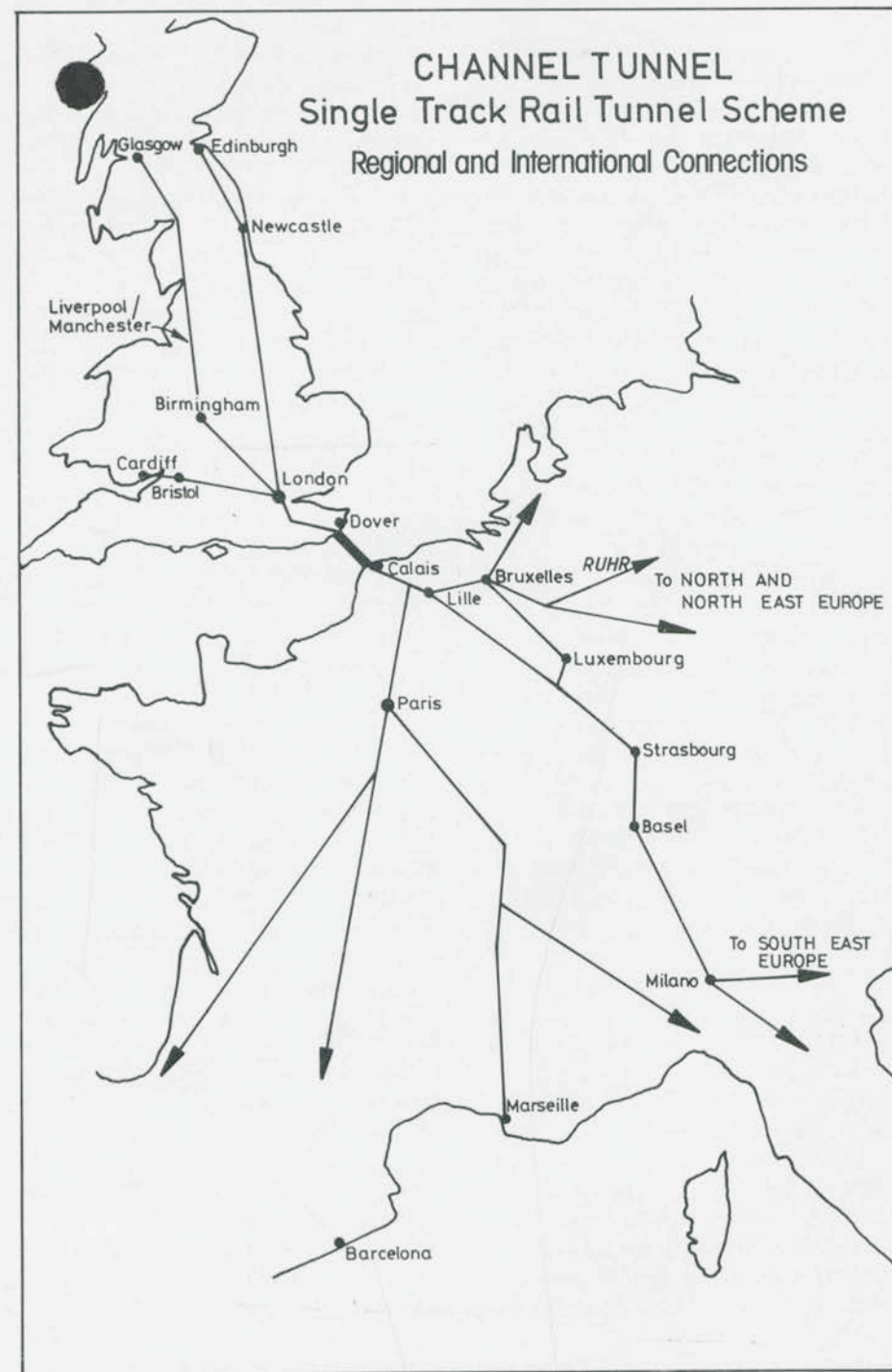
For the freight customer the benefit to areas other than the South-East will be even more marked. Some 70% (three and a half million tonnes) of the traffic expected to use the through freight trains will originate or terminate beyond London. The improvement in transit times and reliability as a result of the introduction of through services will be significant in all areas. For example, a container which at present takes about a week (door to door) from the north of England to Basel will do the same journey in about half the time.

Proposed Transit Times for Freight Services
Scotland and North of England to the Continent

To	Days	To	Days
BELGIUM NETHERLANDS NORTHERN FRANCE	2	AUSTRIA NORTHERN SPAIN	4
SOUTH OF FRANCE GERMANY NORTHERN ITALY SWITZERLAND	3	SOUTHERN SPAIN SOUTHERN ITALY	5

The scheme is not designed to achieve any dramatic change in the overall pattern of traffic movement to and from the Continent. Nearly all the trains to and from the Continent will run through at least as far as London and only very limited road/rail interchange facilities are planned for the South of England. The vast majority of road traffic will continue to use the existing wide range of maritime services. It is unlikely that there will be

pressure for any large scale industrial development in the south-east as a result of these improvements, as there might well be with a road-orientated scheme for a fixed link. Indeed, the existence of a network of fast rail freight services, linking the tunnel with the main provincial centres, could well result in areas away from the South-East becoming more attractive for industrial development.



What Now?

The Secretary of State for Transport has indicated that for any project to receive support from the British Government, the British portion must be capable of being financed from the private sector. This poses a number of problems – but the analysis carried out so far by BR, with the help of their financial advisers, indicates that it should be possible to devise a 'package' that will meet the requirements of the Government.

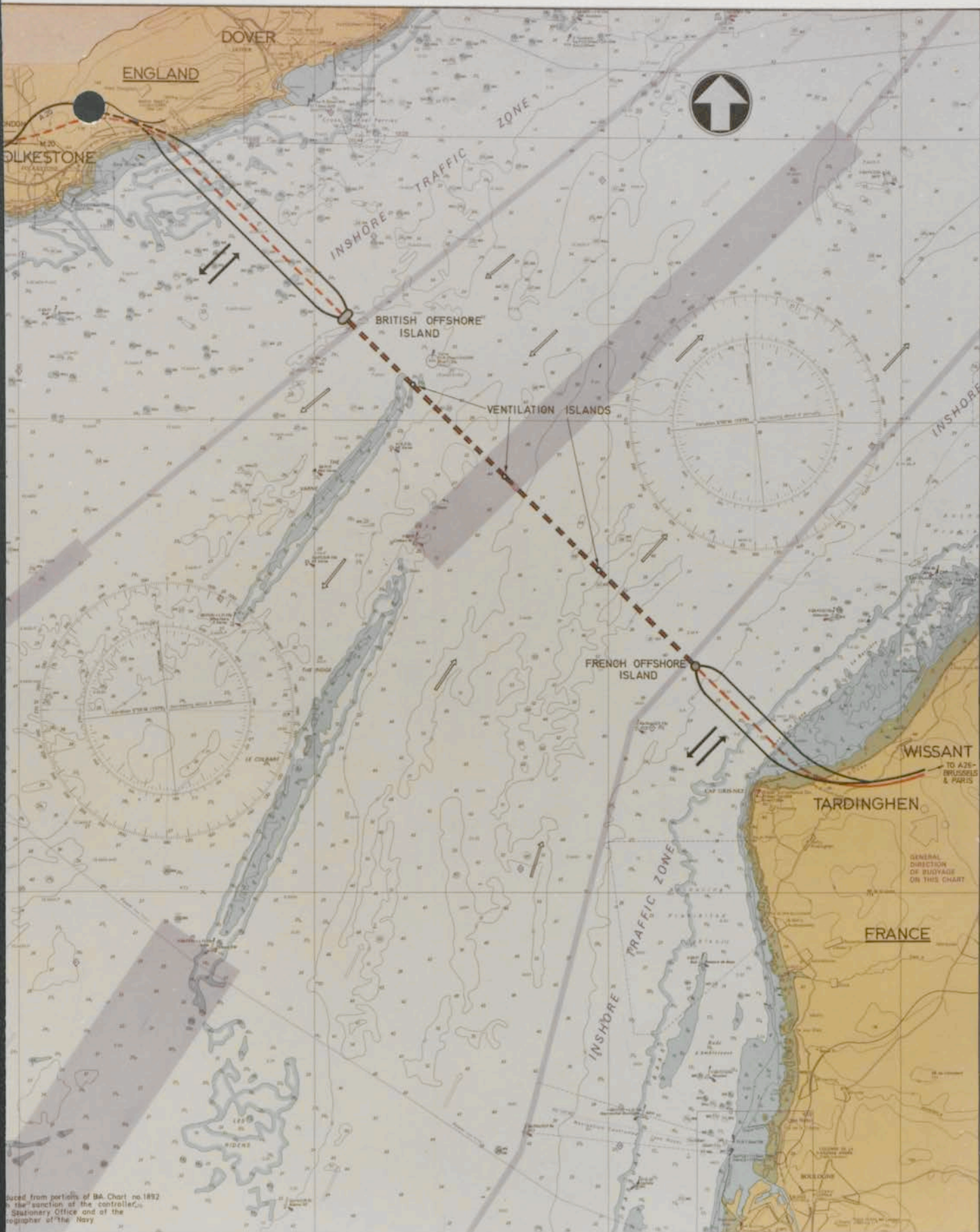
He has also indicated that, together with the French Minister of Transport, he hopes to be in a position to reach a decision in principle before the end of 1981 as to what if any scheme should go forward.

British Railways believe that their scheme closely corresponding as it does to that recommended by the Select Committee, will provide the nation with an asset of immeasurable value which will have minimum impact on the environment. It involves a relatively modest outlay and offers an attractive financial return in real terms of some 9% to 10%. It is financially robust and is regarded favourably by the vast majority of the many interests who have been consulted.

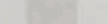



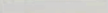

Given a decision to proceed with the scheme and to provide the necessary railway installations outside the tunnel area, the project should be completed in 1989 or 1990.

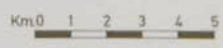
British Rail can understand the thinking behind the proposal that, as an insurance for the future, a tunnel of slightly larger diameter should be considered, but a tunnel of 6m in diameter is all that is necessary for conventional rail traffic and for this reason the Railways would not themselves seek to promote anything larger. Certainly they would be opposed to a single track scheme which sought at a substantial cost in terminal installations and specialised rolling stock to restrict artificially the growth of conventional rail traffic by superimposing on top of the through rail service a shuttle service for carrying road vehicles.

It is right and proper that this question should be debated, but this should be done within the timescale laid down and should not be allowed to delay decision and implementation.



Produced from portions of BA Chart no. 1892
 by the sanction of the Controller,
 Hydrographic Office and of the
 Hydrographer of the Navy

- KEY:**
-  SEPARATION ZONES
 -  ROADS (SURFACE)
 -  ROADS (TUNNEL)
 -  RAILWAY (SURFACE)
 -  RAILWAY (TUNNEL)
 -  COMBINED

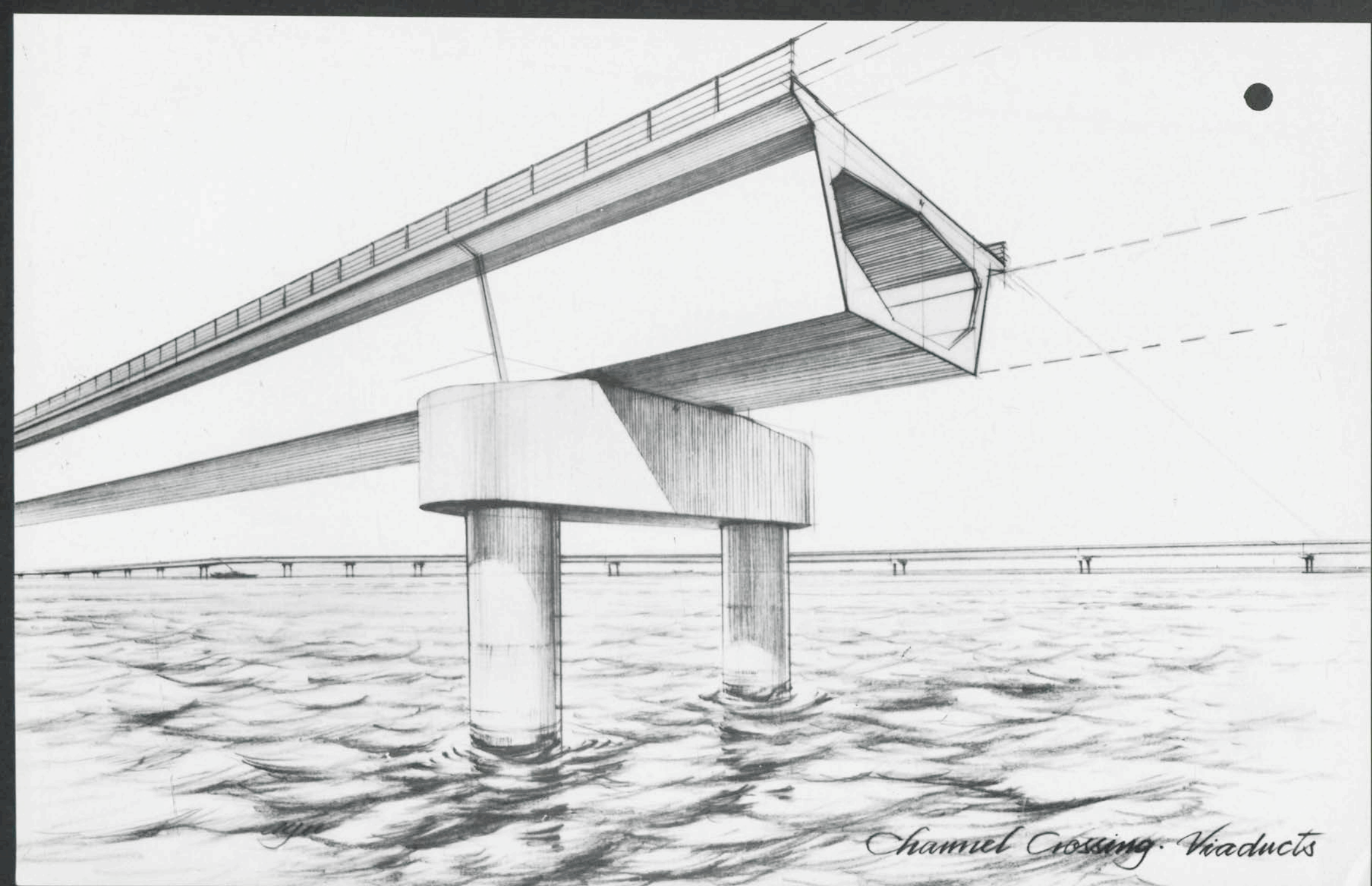


EUROROUTE
 ROAD AND RAIL CHANNEL
 CROSSING

KEY PLAN

Mott, Hay & Anderson
 Consultants, London.

Drawing no. 1



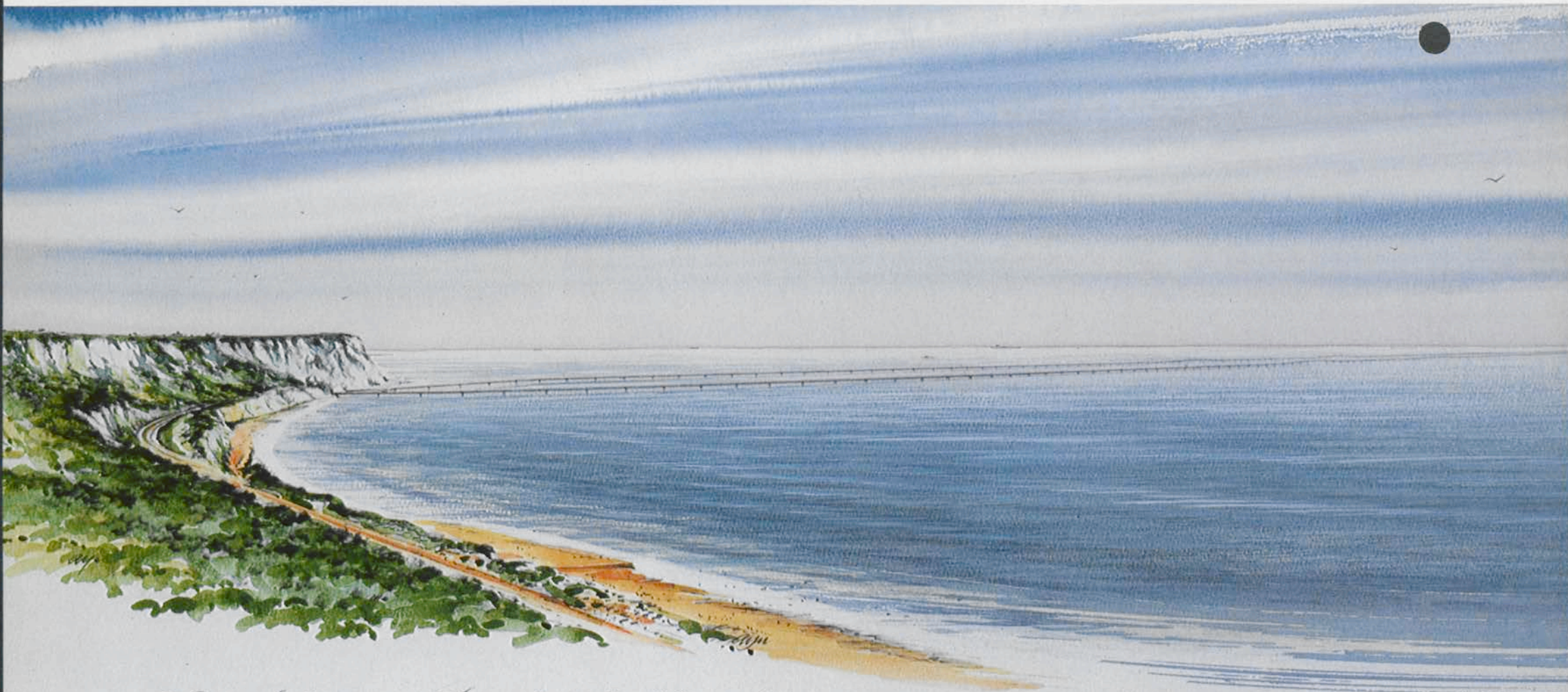
Channel Crossing. Viaducts




Channel Crossing - Offshore Island



Channel Crossing - Submerged Tunnel



Channel Crossing. Viaducts at English Coast.

Transport 

FOR THE INFORMATION OF THE PRESS

Please Note EMBARGO: NOT FOR PUBLICATION, BROADCAST OR USE ON CLUB TAPES BEFORE 11:00 a.m. G.M.T. ON FRIDAY 6TH MARCH 1981
HOUSE OF COMMONS TRANSPORT COMMITTEE

The Channel Link

The Report of the House of Commons Transport Committee on The Channel Link is being published on Friday 6th March 1981 at 11.00 a.m. (Second Report from the Transport Committee, Session 1980-81, House of Commons Paper No. 155-I).

Mr Tom Bradley, MP, Chairman of the Committee, will hold a press conference to coincide with the publication of the Report at 11:00 a.m. on Friday 6th March in Committee Room No.17 at the House of Commons.

The Report follows an inquiry which the Committee decided to undertake on 25 March 1980 into "the possibility of the construction of a fixed link for the transportation of passengers, vehicles and freight across the English Channel financed by private risk capital". Oral evidence was taken in public on sixteen occasions between 13 May and 11 November 1980; this has already been published as House of Commons Paper 599-i to xvi, Session 1979-80, and will be reproduced as Volume II of the Report. The Committee also received more than a hundred written submissions, most of which will be published in Volume III of the Report.

The Committee have approved the following summary of the Report and its conclusions.

SUMMARY

I INTRODUCTORY (Paragraphs 1 to 19)

In their Introduction (paragraphs 1 to 7) the Committee explain the purpose of the inquiry and list the organisations and individuals who gave oral evidence to them. The Committee stress that it was not their intention to endorse a single proposal by a single promoting group or to recommend the adoption of any one scheme without further examination by the House or the Government. They hoped, however to be able to submit recommendations to the House which would enable Members to take a view about the desirability, in principle, of proceeding with the construction of a fixed Channel Link and which would narrow the range of options on the capacity and form of such a link in order to allow detailed planning and a final choice to be made in an orderly and expeditious fashion (paragraph 3).

Paragraphs 8 to 19 recount the history of the Channel Tunnel project abandoned in January 1975, and summarise the financing arrangements envisaged for that project.

II THE NEED FOR A NEW CHANNEL LINK (Paragraphs 20 to 35)

Paragraphs 20 to 26 discuss the growth of cross-Channel traffic since the early 1970's. In paragraph 26 the Committee draw attention to (i) the extent to which traffic growth has equalled or exceeded Government and other forecasts, (ii) the continuing upward trend in the growth of cross-Channel traffic and (iii) "the impressive resourcefulness of port authorities and ferry, hovercraft and other operators in creating the facilities required to meet the great increase in demand".

Paragraphs 27 to 30 discuss future cross-Channel traffic growth. The projections of freight traffic contained in the study prepared for the European Commission by Coopers & Lybrand Associates and SETEC Economie are accepted as "not unreasonable" (Paragraph 29) and those for passenger traffic are described as "a reasonable guide to likely overall passenger traffic growth" (Paragraph 30).

In paragraphs 31 to 35 the Committee discuss the desirability of a fixed Channel link. They note that very little evidence has materialised opposing the principle of a fixed link (paragraph 31) and draw attention to the employment potential of a major capital investment project of this kind (Paragraph 34). In the light of these considerations they conclude that they are in favour of facilitating the construction of a fixed Channel Link (Paragraph 35).

III THE MAIN OPTIONS (Paragraphs 36 to 49)

In paragraphs 36 to 43 the Committee summarise the main options for fixed Channel links submitted to and considered by them during the inquiry. The Committee stress that, at the time they were made to them, most submissions were of an extremely tentative nature, that many details had yet to be sorted out, and that some estimates of costs, traffic and returns had to be treated with caution.

A more detailed summary of the evidence submitted by proposing groups is contained in Annex B to the Report.

Paragraphs 44 to 49 discuss the "do-nothing" option. The Committee emphasise (Paragraph 47) that they "have no reason to question the view that existing modes could, if necessary, be expanded to a capacity sufficient to cope with all forecast increases in the demand for cross-Channel traffic". They conclude, however, that it is not the role of Parliament "to prevent the development of new modes which would fairly compete with existing operators, even if some existing operators were to suffer in consequence" (Paragraph 49).

IV ASSESSMENT OF THE OPTIONS (Paragraphs 50 to 108)

This part of the Report discusses a number of key factors to be considered in the choice of a fixed Channel link option, and summarises the Committee's main conclusions in relation to these factors.

The Committee emphasise (Paragraph 51) the uncertainties relating to (i) the means of financing a Channel link, (ii) the acceptability of any favoured option to the French Government and other European Governments, and (iii) the organisation and management of the construction and operation of a fixed link; and conclude that these matters "cannot be fully resolved until an initial decision in favour of a particular option has been taken".

Technical problems and feasibility; paragraphs 52 to 57 discuss the technical feasibility of the main options, a matter considered further in Annex D to the Report. The Committee believe that "the conclusions reached by the Governments during the 1960's about the relative acceptability of alternative methods of constructing a fixed Channel link remain broadly valid" (Paragraph 53)

Although they acknowledge the greater confidence amongst engineers about the feasibility of alternative constructional methods (paragraph 54) and recognise the greater transport facilities to be offered by a cross-Channel bridge or submerged tube (Paragraph 55), the Committee conclude that "if it is considered desirable to proceed with the choice of a fixed link option and to undertake its construction within the reasonably near future and with reasonable certainty about the construction time and cost involved, that option must inevitably take the form of some kind of bored railway tunnel." If, however, the intention to reach a decision in 1981 were abandoned, and if private interests were meanwhile prepared to invest in further design and development work, the Committee believe that the submerged tube option "might prove to be an acceptable alternative". Suspension bridge proposals continue to be regarded by the Committee as "more remote" (Paragraph 57)

Environmental considerations: paragraphs 58 to 74 discuss the main environmental considerations applying to a choice of fixed link.

The Committee conclude that "in terms of environmental and possible energy considerations a rail only tunnel offers significant potential advantages, assuming that the railways are able to attract traffic away from the road and ferry systems". They believe, however, that the real environmental and energy benefits will depend on the ability of BR and its continental partners to achieve such a transfer of traffic (paragraph 63).

The Committee discuss the likely environmental effects of a fixed Channel link on Kent, and conclude that "the overwhelming weight of local opinion in Kent is in favour of the BR single bore railway proposal or a commercial equivalent, if any link at all is to be constructed, and opposed to any link which might increase the total volume of road traffic in Kent or which might create major new environmental problems arising from the reception, parking, loading and unloading of cars and heavy goods vehicles" (Paragraph 73).

The Committee recommend that the Nature Conservancy Council should be invited to undertake a new survey of the wildlife and geological/geomorphical implications of any decision in principle in favour of a fixed Channel link (Paragraph 74).

Regional economic considerations: paragraphs 75 to 84 discuss some of the regional economic considerations applying to a choice of fixed Channel link. The Committee conclude that, "at least so far as the more modest fixed link proposals are concerned, the advantages and disadvantages to Kent are likely to be in balance in the longer term, although in the short term there may be important, and locally severe, effects on employment."

The Committee believe that "it will clearly be necessary for the Government to undertake a full examination of the economic consequences of any decision to construct a fixed link, both in relation to Kent and to other regions of the United Kingdom, and to make whatever contingency arrangements may be necessary to cope with, in particular, the short-term employment problems which may follow the opening of a new link". Such a study, however, need not precede a decision in principle unless serious consideration were to be given to a facility providing a direct cross-Channel road link (paragraph 84).

Implications for other modes: paragraphs 85 to 97 discuss the implications for other transport modes of a fixed channel crossing. The Committee briefly discuss the implications for the shipping industry and the Channel ports, and conclude that "All the evidence we have received points to the conclusion that the Kent ports, although likely to suffer a minor set back in their development as a result of the BR scheme, would in all probability be able to continue in operation and to recover their position as cross-Channel traffic continued to grow. The same could not, however, be said in respect of schemes which involved an immediate and overwhelming transfer of road vehicle traffic away from the ports. In those cases the prospects for the Channel ports could be bleak" (Paragraph 97)

Dangers of a cross-Channel monopoly: In paragraphs 98 to 103 the Committee examine the dangers of the creation of a monopoly or near-monopoly situation in the cross-Channel market. They conclude that "it would be contrary to the national interest for any project to be proceeded with which sought to provide through a single structure for the great bulk of cross Channel traffic, which sought to place such capacity - even if in diverse modes - under the control of a single owning and operating authority, or which, in order to become and remain commercially viable, needed to render unprofitable the services provided by most other conventional cross-Channel operators"(Paragraph 102). Moreover, they believe that "This consideration could lend weight to arguments in favour of staging the introduction of new facilities in line with increases in demand" (Paragraph 103).

Commercial viability: In paragraphs 104 to 108 the Committee examine the commercial viability of the proposed fixed link options. Although they stress the limited extent of the information available on this subject, they conclude from the available evidence that "all the schemes suggested to us have a good chance of becoming commercially profitable but that some of the larger schemes, involving much greater initial capital, will take a considerable time after construction to justify themselves, and are much more dependent for their justification on the achievement of a high rate of economic growth. So far as the railway tunnel schemes are concerned it is possible that, in the long run, a higher return on capital may result if provision is made, either now or at an intermediate stage after the initial project, for facilities for ferrying cars and lorries, particularly if high economic growth rates are achieved" (Paragraph 108).

V NARROWING THE OPTIONS (Paragraphs 109 to 139)

The Committee recall their conclusion (in paragraph 57) that, if a fixed link is to be proceeded with in the relatively near future, "it must take the form of some kind of conventional bored tunnel", and conclude, moreover, that "the primary facilities offered by the link will be restricted to the railway mode" (Paragraph 110).

The critical question, however, is whether, if constructed at all, a tunnel should provide some kind of facility for the carriage of accompanied road freight and passenger vehicles (paragraph 111). The restriction of the tunnel's capacity to conventional rail traffic would be in the railways' commercial interests, would prove more acceptable to environmental interests and local authorities in Kent, and would create less of a challenge to other cross-Channel operators (paragraphs 112-3). But, in the Committee's view, "to embark upon a major new facility for cross-Channel traffic which totally and for all time ignored the present majority preference for road transportation must be a questionable proposition and could only be justified if there were very good grounds for supposing that the creation of a rail only link could effect a significant transfer of traffic from the roads and for believing that such a transfer would be desirable in the national interest" (paragraph 114).

The Committee therefore consider in more detail (in paragraphs 115-126) traffic forecasts for a rail only tunnel (a further examination of which is contained in Annex C to the Report). The Committee comment that "Notwithstanding the care that BR have taken in attempting to make realistic forecasts of the freight traffic potential of a rail only tunnel, there is possibly a greater element of risk attaching to their forecasts than to those for a tunnel with a road vehicle carrying capacity" (Paragraph 119). Overall, the evidence suggests that BR are not being unduly optimistic, and that their forecasts may in some respects even prove conservative. However, the much higher Coopers & Lybrand freight forecasts for the years after the opening of the tunnel suggest that "if the BR proposal were to be accepted in principle there would be good grounds.....for provision to be made at the outset for the possible future development of the tunnel's facilities" (Paragraph 125)

The preferred strategy: The Committee conclude that "although a rail only tunnel is likely to generate sufficient freight and passenger traffic to prove commercially viable, a more ambitious tunnel scheme could well prove to be more economically attractive in the long term and also has a lower commercial risk attached to it" (paragraph 127).

Although the Committee would see no reason not to recommend the acceptance of the BR scheme to the House and the Government if it were the only option available (Paragraph 128), they do not believe "that it would be sensible or responsible for the House or the Government to support a new, and very expensive, link across the Channel which would preclude the provision of a road vehicle ferrying facility and which would therefore involve the construction of an entirely separate fixed link if such a facility were to be required in the future" (paragraph 130).

The Committee "accordingly recommend that serious consideration should be given to the construction of a single track 6.85 metre railway tunnel across the Dover Straits" (Paragraph 131)

In order to emphasise their wish to ensure that the railways have every opportunity to exploit the new link without the need to plan immediately for road based traffic also, the Committee further recommend "that legislation should be put before Parliament to provide powers initially for the construction of a tunnel of up to 6.85 metres internal diameter and such land based facilities as are required for the rail only link. If it is subsequently decided that the expansion of facilities to cater for road vehicle ferrying is desirable, further legislative powers will be required from Parliament and, if necessary, a separate public consultation and inquiry procedure will need to be adopted" (Paragraph 133).

Because of the long term importance of keeping open the option of expanding the tunnel's facilities and the very much greater costs which would, by general consent, be involved in the construction of a separate large tunnel or the cost and inconvenience which would be involved in subsequently enlarging the bore of the first tunnel from 6 to 7 metres, the Committee think that "there may be a case for treating the additional cost of the enlarged tunnel as a public investment for the future which should not fall on the private developers of the initial scheme" (paragraph 135).

VI FINANCE (Paragraphs 140 to 157)

In paragraphs 140 to 151 the Committee summarise the Government's position and the attitude of promoters towards the financing of a fixed Channel link. In the light of the recent evidence of the Secretary of State's willingness to contemplate certain basic forms of guarantees and of the serious interest in banking circles to reach a solution based primarily on private capital the Committee believe "that a form of financial package acceptable to both the Government and the financial interests may be in sight" (Paragraph 152).

The Committee nonetheless advise the House "to examine closely the terms and consequences of any public guarantees which may be offered by the Government" (paragraph 155).

Although the Committee "believe it right that the burden of financing a fixed Channel link should fall overwhelmingly on the private sector" (Paragraph 156), they think that "the Government may have to review its refusal to invest any money at all in the project if a relatively small injection of public funds were to prove to be the key to the provision of an acceptable financial package" (Paragraph 157).

VII FURTHER STEPS (Paragraphs 158 to 164)

The Committee comment that the most critical factor in any decision to proceed with a revived Channel link project is the attitude of the French Government and authorities, and recall the reluctance of the French Government to make any public commitment at this stage in the light of what they understandably regard as a breach of faith by the British Government in 1975. The Committee hope that "informal discussions between officials of the French and British Transport Ministries will be sufficiently detailed to ensure that whatever preliminary decisions are arrived at by the British Government they will as far as possible take account of the acceptability of the proposals to the French Government" (paragraphs 158-160).

The Committee recommend that "if the Government wish to proceed to formal negotiations with the French authorities their next step should be to submit outline proposals for a fixed link scheme to the House. These proposals should take the form of a White Paper containing both the Secretary of State's response to our Report and the results of his assessment of the proposals submitted to him, together with recommendations concerning a preferred option or options and proposed methods of managing and financing the project. This White Paper should be debated by the House on a substantive motion allowing the opportunity of a clear decision on the principles involved" (Paragraph 161). Meanwhile, a number of separate studies (including the regional, economic and social impacts of the proposed link, and the other transport infrastructure implications) may need to be pursued (paragraph 162).

VIII CONCLUSIONS (Paragraphs 165 to 167)

The Committee conclude that all the indications are that a scheme of the kind preferred by them - a single track railway tunnel built to dimensions which would permit the expansion of services at a later date - "will prove reasonably acceptable to public opinion and the interests directly involved, and will be financially profitable. It will also, in our view, give a much needed boost to railway transport in this country and provide the nation with a mode of Channel crossing which will bring benefits in terms of time and comfort" (Paragraph 166).

The Committee believe, moreover that "the evidence suggests that there is a wealth of enthusiasm, expertise and goodwill amongst those who have made proposals to us and to the Secretary of State which may now be pooled to achieve a result which should be to the long term benefit of the country and in the short term could provide a substantial fillip to British industry." (Paragraph 167).

Note to Editors

The Report on the Channel Link was considered by the Transport Committee at meetings on Wednesday 28th January and Wednesday 4th February and was finally approved by them on Wednesday 11th February.

The Members of the Committee at the time of the approval of the Report were: Mr. Tom Bradley (Chairman), Mr. Gordon A.T. Bagier, Mr. Sydney Bidwell, Mr. Neil Carmichael, Mr. Harry Cowans, Mr. Stephen Dorrell, Mr. Den Dover, Mr. Peter Fry, Mr. Barry Porter, Sir David Price, and Mr. Gary Waller.