

CONFIDENTIAL FILING

Autoguide Route Guidance System

TRANSPORT

February 1988

Referred to	Date	Referred to	Date	Referred to	Date	Referred to	Date
8.2.88							
17.2.88							
19.2.88							
22.2.88							
PREM 19/2555							

cc: BG



NORTHERN IRELAND OFFICE
WHITEHALL
LONDON SW1A 2AZ

SECRETARY OF STATE
FOR
NORTHERN IRELAND

nrpm

*Free
w/r*

The Rt Hon Paul Channon MP
Secretary of State for Transport
Department of Transport
2 Marsham Street
LONDON
SW1P 3EB

22 February 1988

Dear Paul,

AUTOGUIDE ROUTE GUIDANCE SYSTEM

at flap

I have seen your Paper to the Prime Minister on the Autoguide Route Guidance System and would be happy to see the appropriate legislation proceed.

In the Northern Ireland context, separate legislation would be required should it be decided to extend the system, although traffic congestion factors here are significantly different.

For the present we would be content to monitor progress in GB through our contacts with DTp and TRRL.

I am copying this letter to members of E(A) and to Sir Robin Butler.

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TK

ken

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DMC/1943

TRANSPORT: Autoguide Route
Guidance System



FW 88

CEB

2 MARSHAM STREET
LONDON SW1P 3EB
01-212 3434

My ref:

Your ref:

The Rt Hon Paul Channon MP
Secretary of State
Department of Transport
2 Marsham Street
LONDON
SW1P 3EB

19 February 1988

*Dear Paul**NBOM**REC6**2/12
Har*

I have seen a copy of your letter of 5 February to the Prime Minister on the proposed autoguide route guidance system.

Apart from the potential commercial benefits of the proposal, the reduction in vehicle mileage would also lead to a reduction in the levels of air pollution. Your estimate of a maximum possible reduction in vehicle mileage of 6% would lead to significant reductions in overall national pollution loadings for oxides of nitrogen, carbon monoxide, hydrocarbons and lead. I therefore welcome your proposals.

Installation of the equipment by private consortia would not benefit from the permitted development rights of the General Development Order. Your proposed legislation may cover the planning position, but a Special Development Order (SDO) might be a comparatively straightforward long-stop. There is something of a precedent in the SDO for Mercury's installations.

I am copying this letter to the Prime Minister, members of E(A) and to Sir Robin Butler.

A handwritten signature in cursive script, appearing to read "Nicholas Ridley".

NICHOLAS RIDLEY

TRANS. Route Clearance System
Feb 88





cc BB

Treasury Chambers, Parliament Street, SW1P 3AG

The Rt Hon Paul Channon MP
 Secretary of State for Transport
 Department of Transport
 2 Marsham Street
 London
 SW1P 3EB

ArbM

*RACG
 18/2*

Dear Paul,

17 February 1988

AUTOGUIDE

I have seen a copy of your minute of 5 February to the Prime Minister, and of the accompanying paper. *at top*

I am content for policy approval to be given to the enabling legislation on Autoguide. I am grateful for your assurance that any public expenditure on the system by your Department can be contained within existing provision. I would expect this to be the case for any expenditure under David Young's programmes also.

I am copying this letter to the Prime Minister, other members of E(A) and to Sir Robin Butler.

*Your Ever,
 John*

JOHN MAJOR

TRANSPORT: Autoguide
Feb 88.





SCOTTISH OFFICE
WHITEHALL, LONDON SW1A 2AU

cebg

The Rt Hon Paul Channon MP
Secretary of State for Transport
Department of Transport
2 Marsham Street
LONDON
SW1P 3EB

mbm

rcb

17/2

17 February 1988

Dear Paul,

AUTOGUIDE ROUTE SYSTEM

You ^{*attfay*}minuted to the Prime Minister and other members of E(A) on 5 February about the Autoguide Route System. I support the proposals in your minute. In order to keep the options for this exciting new development open for the future, I would want any enabling legislation to cover Scotland.

I am sending copies of this letter to other members of E(A) and to Sir Robin Butler.

Yours ever,
Malcolm Rifkind

MALCOLM RIFKIND

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ab G
L05A JL*

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

8 February 1988

AUTOGUIDE ROUTE GUIDANCE SYSTEM

The Prime Minister has seen your Secretary of State's minute of 5 February. Subject to the views of colleagues, she is content for work to be put in hand to design the necessary operating framework for the auto-guide system. She was most grateful for the invitation to drive over the course, but does not wish to take up the offer at this stage.

I am copying this letter to the Private Secretaries to the members of E(A) and to Sir Robin Butler.

PAUL GRAY

Neil Hoyle, Esq.,
Department of Transport.

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AB



Prime Minister

Prime Minister

1. Content, subject to the views of colleagues, to give policy approval?

Yes
no

2. Would you like to take up the offer of X overleaf?

No
no

RR16/12

1. I attach a paper about the Autoguide Route Guidance System. I am seeking approval in principle from E(A), with a view to legislation next session. I shall of course approach Q(L) in the normal way.

2. The UK leads the world in advanced traffic control systems. Autoguide is an exciting new development. It is an electronic intelligent A to Z. Drivers key their destination into a micro-computer on the dashboard which tells them which way to go at each junction. It will benefit users by choosing the best suitable route taking account of the traffic conditions at the time, bringing them within 50 yards of where they want to get to. The cost should be low enough to attract a large market. By cutting out wasted mileage and guiding drivers away from hold-ups, it should reduce congestion for all road users. It could bring benefits to London comparable to those provided by the M25, and sooner than any major new road proposals could be delivered.

3. West Germany is more advanced in providing a similar system in Berlin and Munich. We need to ensure that we do not lose our position and that our industries have their full share of the large potential national and international market. The private sector are keen to take forward and exploit original research carried out by my Department's Transport and Road Research Laboratory. They are collaborating with West Germany to ensure a common European standard. This will benefit our commercial operators and the tourist industry.



x | 4. Potential operators want to mount a substantial pilot project in London in 1990 to test the system with a view to full operation in the early 1990s. The system could then be expanded to cover the whole country. A dozen firms, with the AA and RAC, have set up an on-street demonstration of the system to be publicly launched in April. It will give a good opportunity for us to show that we have an imaginative approach to solving London's traffic problems. It will show how the private sector can help by using new technology and providing valuable transport infrastructure. I should be pleased to arrange a drive over the course for you and colleagues in a demonstration car should commitments permit.

5. Legislation is needed to set the necessary operating framework and standards and to allow the communication system to be installed. Industry is looking to us for a commitment to provide the necessary powers to give them the confidence to press ahead.

6. I recommend policy approval for the necessary enabling legislation. I have considered this approach with David Young because of the industrial implications. He supports it.

7. I am copying this minute and papers to members of E(A) and to Sir Robin Butler.

P.C.

PAUL CHANNON

5th

February 1988

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AUTOGUIDE: MEMORANDUM BY THE SECRETARY OF STATE FOR TRANSPORT

INTRODUCTION

1. This paper seeks approval in principle to the AUTOGUIDE electronic route guidance system with a view to legislation in the next session. Legislation will facilitate the research, development and commercial operation of AUTOGUIDE. The system is being promoted by the private sector and co-ordinated by the Department of Transport. Legislation is necessary to:

- provide a framework for licensing the system operators;
- enable the operators to instal roadside equipment; and
- ensure the application of a common operating standard.

Implementation of these arrangements will enable drivers to use their equipment as they move from one area to another.

THE KEY ELEMENTS OF AUTOGUIDE

2. AUTOGUIDE tells drivers the most efficient of suitable routes to their destination through a visual display in the fascia of their vehicles. This display tells them when to turn and brings them to within 50 yards of the end of their journeys in central areas. The instructions are based on up-to-the-minute information about traffic conditions ahead, including congestion, accidents, road works and hazardous weather conditions. Drivers can therefore avoid hold-ups, which will be less severe than they would have been without the system. Equipment in the vehicles will transmit information back through roadside beacons to a

central computer, which will use it in calculating current traffic conditions. The system will therefore be self-adjusting and will not shift congestion from one area to another. Market research commissioned by the private sector confirms that the system meets drivers' principal concerns: their lack of knowledge about en route hazards and the detail over the last few miles of their journeys. Conventional route guidance systems cannot meet these concerns in such a satisfactory way.

3. Basic research into electronic route guidance systems in the United Kingdom has been undertaken by the Department's Transport and Road Research Laboratory (TRRL). They have concluded that AUTOGUIDE is the best way forward. They have been, and still are, transferring the technology they have acquired to the private sector. They are assisting with the Demonstration Project that the private sector is mounting in the Westminster area and the corridor out to Heathrow. This scheme started operations in December 1987. It is aiming to give the AUTOGUIDE programme a sound practical basis and to create an informed climate for investment decisions. The principal UK interests involved are the AA, RAC, GEC, Plessey, Jaguar, Rolls-Royce and Rover, helped by 3 smaller consultancy firms.

4. The next step is a London Pilot System. The private sector are keen to mount this in 1990. The System will be far more extensive than the Demonstration Project. It will be the basis for a commercial AUTOGUIDE service for London in the early 1990s. This service will then be expanded quickly into a national

system, like cellular radio.

THE BENEFITS

5. AUTOGUIDE will bring a range of substantial benefits. TRRL estimate that problems with routing and navigation information waste 6% of vehicle mileage at a cost to the nation of over £2 billion each year. They calculate that AUTOGUIDE will be able to make significant in-roads into this waste.

6. The major beneficiaries of the system will be business and commercial users although private motorists will also find it useful. They will spend less time on the road, cover less mileage and incur less fatigue. This will help save resources and reduce accidents. Public transport operators will benefit from a general improvement in road conditions and from a "fleet location" facility. The latter will assist scheduling and fleet management. It will be particularly attractive where buses and coaches are deregulated.

7. The system suppliers and operators will benefit from providing a desirable and profitable service to the mass market. UK-owned electronics and motor manufacturers are associated with the infrastructure and vehicle equipment provision. The motoring organisations will promote the system and make it available to the public. Early implementation of the system will help the UK retain its leading position and encourage exports.

8. There will be public benefits, too, if a substantial proportion of drivers use the system. Traffic jams will be less likely to occur if AUTOGUIDE users are routed away from trouble

spots. Fewer vehicle miles will result in less wear and tear on the roads and hence less maintenance costs. Traffic can be channelled towards the primary route network. This will help to maximise the benefits of the substantial investment being put into the improvement of this network. It will also bring environmental benefits. The information provided by the system will help highway authorities develop better traffic management measures. The early detection of traffic accidents, and reductions in the build-up and severity of "trouble spots", will help the police.

COLLABORATION

9. Collaboration is taking place between the UK and West Germany, where work on electronic guidance systems is also well advanced. It is taking place at Government and industry level, mainly within the framework of EUREKA. UK and West German officials are completing a draft standard for promotion as a European standard. Drivers will then be able to use their equipment wherever route guidance systems are provided. This will be particularly beneficial to commercial operators and tourists and provide broader opportunities for exports. An approach is already anticipated from Spain for advice over the installation of an AUTOGUIDE - type system in Barcelona ready for the 1992 Olympics.

10. Industry is collaborating in the UK. The AA and Plessey have formed a joint AUTOGUIDE venture. The RAC and GEC are considering doing likewise. They and the major British - owned

motor manufacturers will have the opportunity to collaborate with their West German counterparts. This has already begun.

LEGISLATION

11. Legislation is required for the London Pilot System and the subsequent commercial operations. If a London Pilot System is to be mounted in 1990 it will mean legislation in the 1988/89 Parliamentary Session. About 20 clauses are needed. These could be included without difficulty in the Road Traffic Bill that I shall be bidding for in the Government's 1988/89 legislative Programme. If essential they could be in a separate Bill.

EXPENDITURE IMPLICATIONS

12. The fully operational AUTOGUIDE system in London and around the country will be funded by the private sector as a commercial operation, most probably through subscriptions. The London Pilot System will, however, represent a major research programme. It will be costly and risky and will have no return in itself. AA/Plessey estimate it will cost between £5m and £10m. It will represent a major commitment from the companies collaborating over its provision. It is likely that they may seek some financial assistance from a regular Government support programme as part of the EUREKA programme PROMETHEUS. They appreciate the Government's need to appraise any case stringently according to the normal criteria of the relevant programme.

13. My Department would be able to fulfil its role within its existing resources and anticipated provisions. It would be involved with work in the following areas:

- co-ordination work and administrative work associated with the preparation and implementation of the legislation; and
- further research work by TRRL directed at issues of traditional concern to the Department, e.g. monitoring the effects of the system and its operation on traffic congestion, the environment and safety, and other research to enable the Department to authorise AUTOGUIDE operations. The results of this work and earlier research will also be transferred to the private sector.

EC IMPLICATIONS

14. Apart from the possibility of the EC being the most suitable body to adopt the European AUTOGUIDE standard, no other direct EC implications are foreseen at this stage.

FURTHER IMPORTANT POINTS

15. Details are included in the Annex.

CONCLUSION

16. I invite my colleagues to agree the principle of going ahead with legislation for AUTOGUIDE - the timing of which would be settled in the normal way.

Department of Transport.
February 1988

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AUTOGUIDE: FURTHER IMPORTANT POINTS

AUTOGUIDE OPERATIONS

1. AUTOGUIDE uses in-vehicle route computers and roadside beacons. The beacons are most commonly attached to traffic lights. But they can, for example, be hung on motorway bridges and overhead gantries. They act as electronic signposts and are fed with constantly up-dated information from a central computer.
2. The in-vehicle computers should cost only around £250 when supplied as original equipment. Beyond this users will probably need to make only a modest contribution to their motoring organisations, normally at the time they pay their annual subscription. They will tick an appropriate option box in much the same way as they do for a service such as "Home Start".

COLLABORATION WITH WEST GERMANY

3. Electronic route guidance systems are a logical development of traffic control systems. Research and development into the new guidance systems is taking place in Europe, the United States and Japan. Substantial research work is being undertaken in West Germany as well as the United Kingdom. It is sensible that we should collaborate in order to avoid duplicated effort, reduce costs, produce earlier results and promote a common standard for wide application. Collaboration is being undertaken mainly within PROMETHEUS. This is a joint initiative by major European motor manufacturers to promote research and development

into new vehicle technology. It is part of the EUREKA programme. The German AUTOGUIDE equivalent, ALI-SCOUT, is being tried out in Berlin this year. Early results have been encouraging. Audi, BMW, Mercedes-Benz, Porsche and Volkswagen are involved in the PROMETHEUS programme. Siemens, Blaupunkt and Bosch are involved in the ALI-SCOUT trials.

THE STEPS TOWARDS AN OPERATIONAL SYSTEM IN THE UK

4. The Demonstration Project in London was announced by the Minister for Roads and Traffic at the TRAFFEX exhibition in April 1987. Over a dozen companies are involved. In addition to the companies named in para. 3 of the paper they include London Buses Ltd, Heathrow Airport Ltd, W.S. Atkins and Partners, SIA and Texas Instruments. The companies have designed and installed the project with the help of TRRL and in co-operation with participants in the Berlin trials. Five independent beacons have been installed in Westminster and out to Heathrow. They will be used with suitably instrumented vehicles. The scheme will provide a live demonstration of driving under controlled conditions.

5. The London Pilot System will involve around 1,000 vehicles and up to 300 beacons. The former will be vehicles representative of a range of types and journey purposes. The beacons will be sited on the most important roads for moving traffic into and around London. There will be an additional high concentration in the key West London commercial and industrial area around Heathrow. The Pilot will culminate with a series of special

trials with a fully responsive system. It will therefore enable wide conclusions to be drawn about the detailed design, operation and traffic impact of a full AUTOGUIDE system. It will subject the developing system to a rigorous evaluation.

6. The operators and promoters of the Pilot will be selected on the basis of proposals submitted against formal Guidelines. There will be wide consultation on the draft guidelines. Views will be sought from the public, the Police, local highway authorities, the motoring organisations and industry. The formal Guidelines will ask for a Pilot System Project Plan and a long-term commercial development plan. The latter will be necessary because the Pilot Scheme will not be commercially viable on its own. The selected operators will need to recover their initial investment through the subsequent commercial operations. They will want an assurance that if the Pilot System is successful they will be permitted to go on to provide the commercial system for London.

7. A successful Pilot System could be upgraded to a fully commercial service in London in late 1990. This service could be expanded into a national system in the early 1990s. This could be achieved in a number of ways, e.g. by broadening the coverage from London or by establishing similar operations in other cities and then completing the inter-urban areas. The choice will depend largely on commercial considerations nearer the time.

8. The licensees of the London system will not necessarily obtain the licences for other areas. There should be continued

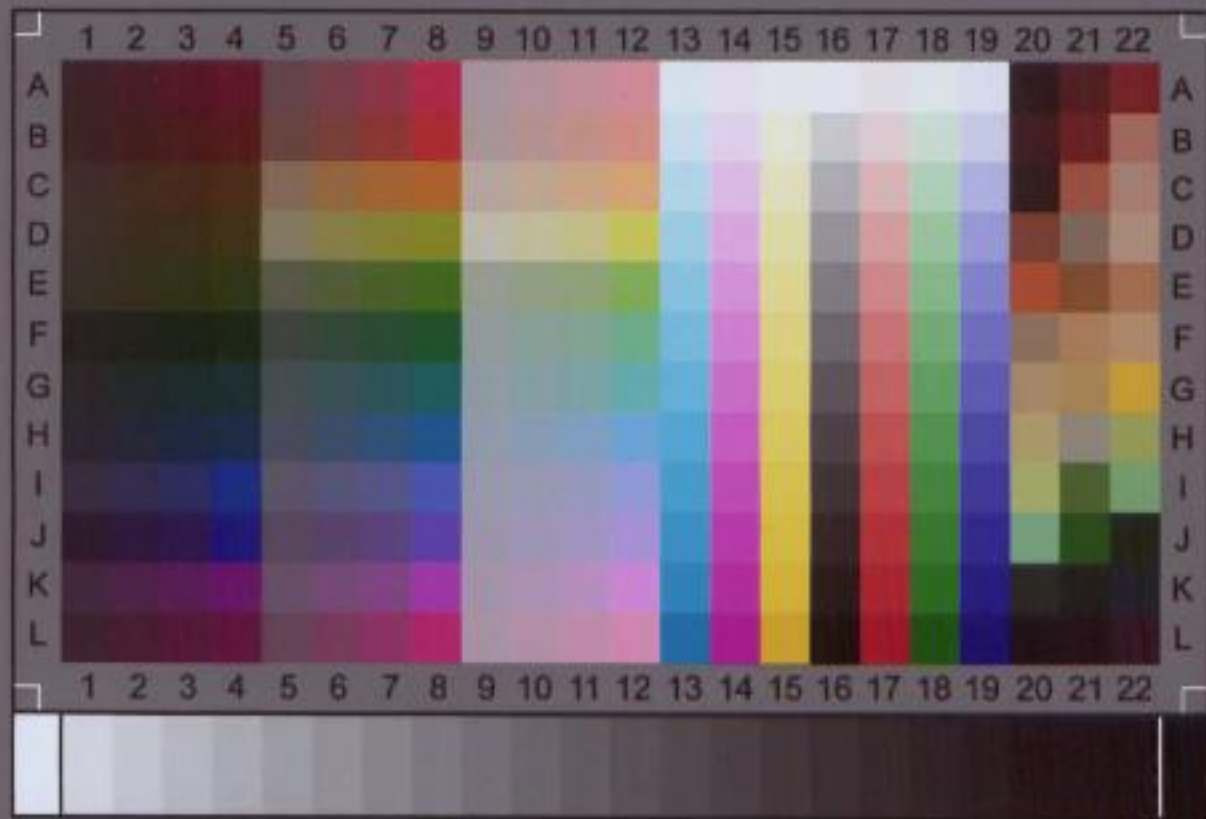
scope for competition: in supplying the infrastructure and the in-vehicle units and in retailing the system.

MARKET RESEARCH

9. Market research will be a continuing feature of the AUTOGUIDE programme as it develops. The results of the market research commissioned by the private sector (AA/Plessey) are in line with the results of other market research carried out in the UK, by TRRL, and in Germany. They confirm the advantages of AUTOGUIDE over alternative systems, which lack the same immediacy and scope, and confirm the existence of a potentially significant market. AA/Plessey have recently commissioned further market research. This is specifically targetted at business users. TRRL research suggests that these users will receive around 75% of the user benefits of AUTOGUIDE during the initial stages.

DEPARTMENT OF TRANSPORT

February 1988



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