

PROJECT AGREEMENT BETWEEN

THE DEPARTMENT OF TRANSPORT OF THE UNITED KINGDOM
TRANSPORT AND ROAD RESEARCH LABORATORY
AND THE DEPARTMENT OF TRANSPORTATION
OF THE UNITED STATES OF AMERICA

CONCERNING COOPERATION IN THE RESEARCH
DEVELOPMENT AND TESTING OF TRAVEL MODELS BASED ON
BEHAVIORAL CHARACTERISTICS OF TRAVELERS

1. AUTHORITY

This Project Agreement (hereinafter referred to as this Agreement) is entered into pursuant to the Memorandum of Understanding concerning cooperation in transportation between the Department of Transport of the United Kingdom (DTp) and the Department of Transportation of the United States (DOT) (hereinafter referred to as the Parties) signed at Washington, D.C., November 9, 1981.

2. PROJECT OBJECTIVE

This Agreement is intended to achieve the maximum practicable cooperation in the development and testing of new types of travel models based on the behavioral characteristics of travelers and the comparison of the new models with conventional ones to improve the study of land-use/transportation interactions.

3. PROJECT OFFICERS

Within thirty days of the signature of this Agreement, the Parties will each designate a Project Officer who will serve as the principal point of contact between the Parties in completing agreed tasks, and periodically reviewing progress achieved.

4. SCOPE OF WORK

The scope of work to be carried out by the Parties is set out in detail in the Annex to this Agreement. However, the Annex is not intended to limit new lines of inquiry which may become apparent as the work progresses, and to which the Parties may mutually agree.

5. FINANCIAL ARRANGEMENTS

- (a) The participation of each Party is subject to the availability of funds and personnel.
- (b) Each Party shall bear, either directly or through contract, the costs arising in connection with its participation.
- (c) Transfer of funds between Parties is not envisaged.

6. DISCLOSURE OF INFORMATION

Questions concerning confidentiality or copyright of information or materials exchanged will be discussed, where necessary, between the Parties concerned before any material is published. Any arrangements made will be in accordance with the laws and regulations of each Party.

7. CONTRACTORS

In the event that either Party employs a contractor to conduct or participate on its behalf in exchanges pursuant to this agreement, the name of the contractor and the scope of its assignment and authority shall be notified to the other Party.

8. DISCLAIMER

Each Party will exercise its best efforts to ensure the accuracy and validity of all data transmitted to the other Parties pursuant to this Agreement, but the accuracy of such data is not guaranteed. Each Party will use the other's data at its own risk and will not hold the other Party responsible in the event of claims arising from the use of such data.

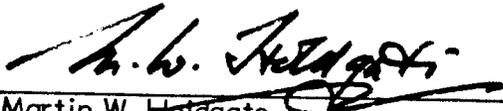
9. DURATION

This Agreement shall enter into force upon signature and shall remain in force for a period of two (2) years or until the various activities and task assignments described in the Annex and in amendments thereto have been completed.

10. AMENDMENT AND TERMINATION

This Agreement may be amended by mutual consent of the Parties. It may be terminated by one Party on 30 days written notice to the other Party.

For the Department of Transport
of the United Kingdom



Martin W. Holdgate
Director General of Research

DATE: 16 March 1982

For the Department of Transportation
of the United States of America



Joyce J. Mack
Deputy Director, Office of International
Policy and Programs

DATE: December 23, 1981

ANNEX

BACKGROUND

In this project, it is proposed to identify those fully interactive land-use/transport models which are available (and there are very few of them) and then to use as many as practicable with data from towns of different types, the aim being to try to identify which effects are due to the model construction and which are genuine differences associated with the individual towns. A second aspect of the study will be to examine new types of models based on the idea that travellers try to maximize the distance covered (or some other related function) subject to a total time and money constraint. One of the best known examples of these so-called "budget" models is UMOT, currently being developed by Zahavi in collaboration with U.S./DOT. The development of budget models requires a great deal of information on the amount of time and money people of different types and in different circumstances spend on travel and so a subsidiary part of the work is bound to involve empirical analyses of travel data in order to seek generalizations of a suitable nature.

STATEMENT OF WORK - U.K./TRRL

TASK 1 - CONVENTIONAL LAND-USE/TRANSPORT INTERACTIVE MODELLING

The Leeds University model (developed by Roger Mackett) will be used with data sets from one or two U.K. cities (possibly including Tyne and Wear, where a new Metro system is being built, and London, where a high proportion of central-area commuters travel by rail on very expensive season tickets), some European cities of compact form (to include ones with urban motorways, Metro systems and neither) and some USA cities (to contrast with the compact European ones).

The Cambridge University model (developed by Echenique) will also be studied and, if suitable, will be used with appropriate data sets in order to provide a comparison with the Leeds model. Other modelling work of a less comprehensive character will be examined, in particular the work of Mogridge on the relationship between travel patterns and residential densities, etc., and different types of cities (e.g., London, Paris, and Washington) will be compared.

TASK 2 - EMPIRICAL STUDIES

Empirical studies of travel times, trip numbers, distances, etc., using the U.K. National Travel Survey (NTS) data and other U.K. sources will be carried out to provide constants and general relationships which might be of use in the development of new types of models. Similar sources of data for overseas countries will be used as necessary. These data sources will be made available to the U.S./DOT, to the extent feasible, when requested.

TASK 3 - CRITIQUE OF U.S./DOT MODELS

The UMOT model will be examined and its performance tested using U.K. data sources. Appropriate modifications to the model will be suggested. To the extent deemed useful, conventional models of the Lowry or Empiric type will also be tested on U.K. data.

The feasibility of testing disaggregate choice models will also be explored.

TASK 4 - INFORMATION EXCHANGE

THE DTp will establish and participate in joint reviews, seminars and technical conferences with the U.S./DOT. Research results, reports and test results will be exchanged.

STATEMENT OF WORK - U.S./DOT

TASK 1 - CONVENTIONAL LAND-USE/TRANSPORT INTERACTIVE MODELLING

The recent model (Putman, University of Pennsylvania) which integrates a Lowry-based land-use model with an FHWA transportation model will be tested in a way similar to that of the Leeds model. Data sources from a wide range of towns, including those used for testing the Leeds model, will, if feasible, be used to test a wide range of policies involving land-use developments, transport infra-structure and fiscal policies.

Results of the application of the Empiric model to the Boston area will be made available. Tests of the disaggregate choice models of Ben Akiva and Lerman will be examined and made available.

TASK 2 - DEVELOPMENT OF NEW MODELS

The development of the UMOT model will be continued with the inclusion of a variable urban form as well as the dynamics of urban form/transportation interactions.

The development of self-organizing models of urban areas, with an explicit transportation function, will be continued.

These and other research results generated under U.S./DOT's Basic Transportation Research Program will be made available to the U.K./TRRL to the extent they are deemed relevant.

TASK 3 - EMPIRICAL STUDIES

Studies similar to those to be done by the U.K. will be performed on U.S. data, and other data available to U.S./DOT.

TASK 4 - CRITIQUE OF U.K./TRRL MODELS

The Mackett model and others to be employed by the U.K. will be examined and, to the extent feasible, tested with U.S. data. Appropriate modifications will be suggested.

TASK 5 - INFORMATION EXCHANGE

The U.S./DOT will establish and participate in joint reviews, seminars and technical conferences with the U.K./TRRL. Research results, reports and test results will be exchanged.