



PATENTS ACT 1977

APPLICANT	Andrzej Stochniol
ISSUE	Whether patent application number GB1017911.7 complies with Section 1(2)
HEARING OFFICER	Peter Slater

DECISION

- 1 Patent application number GB1017911.7, entitled "Methods and systems for vehicle emission reporting" was filed on 25 October 2010 in the name of Andrzej Stochniol and was published as GB2474779. The application claims priority from an earlier US patent application number US 61/254,730 filed on 25 October 2009.
- 2 The examiner has maintained throughout the proceedings that the invention as claimed in this application is excluded from patentability as a business method and a computer program as such under section 1(2) of the Patents Act 1977. The applicant has not been able to overcome this objection, despite amendments to the application.
- 3 The matter therefore came before me at a hearing on 30 May 2012. Mr Andrzej Stochniol appeared in person and the examiner, Mr Jake Collins, was also present.

The Invention

- 4 The invention relates to financial schemes for reducing the emission of greenhouse gases from vehicles engaged in international trade. In particular, the application describes a method for recording and reporting fuel consumption for vehicles travelling between different geographical areas. Various proposals exist for using so-called "emission fees" to control and drive down fuel consumption in international maritime transport and aviation. However, previous proposals suffer in two respects. Firstly, whilst it is not technically difficult to measure emissions on a small-scale, it becomes far more complex to record and report emissions from several thousand vehicles on a global scale. Secondly, and perhaps more importantly, it has become ever more politically difficult to apportion the cost of emissions to their respective countries.

- 5 It is widely acknowledged that aviation and maritime emissions are driven by the level of international trade, and that this is controlled by consumer demand, and that therefore a country's share of emissions should be related to its level of imports. However, for example, container ships often transport goods to many different countries during the same voyage which makes a direct calculation of emissions attributable to different goods and/or countries an administratively complex task. What the applicant has done is to devise a new method of recording fuel consumption for a given type of vehicle, carrying goods between two or more countries over a period of time which are stored in an electronic registry. These records are then used to attribute fuel consumption and emissions to particular geographical areas using a predetermined usage-to-area attribution rule. The results can then be reported and used to calculate emission fees for a market-based emission reduction scheme aimed at reducing vehicle emissions globally.
- 6 The invention is perhaps best illustrated in the drawing depicted below which has been taken from the specification.

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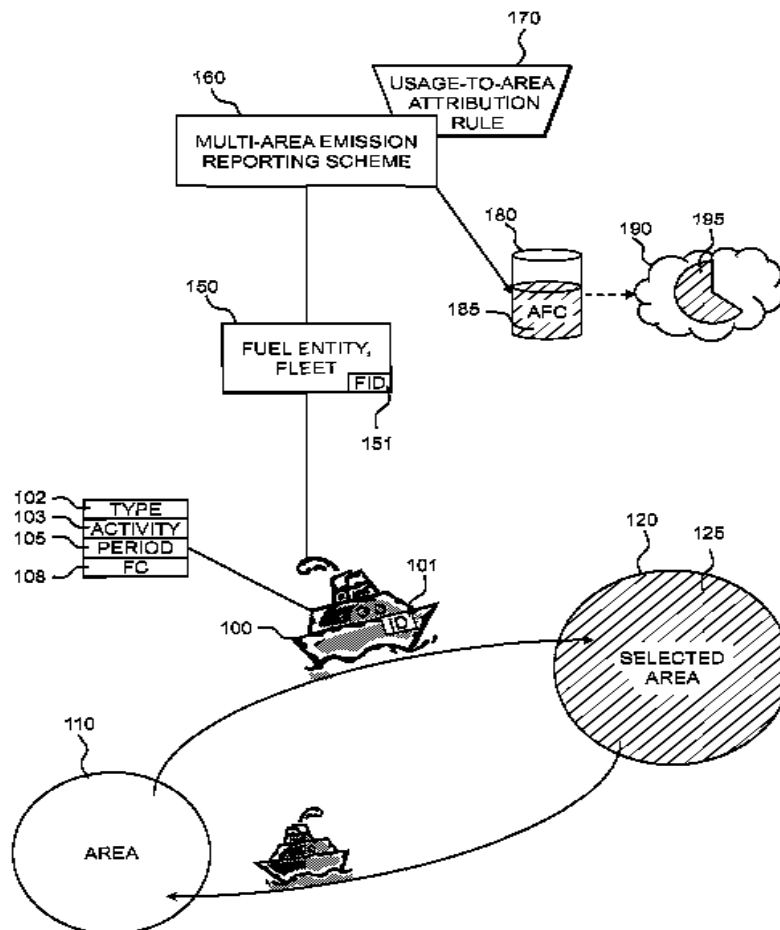


Fig. 1

7 In essence, a vehicle e.g. a ship or an aircraft 100 transports goods etc. between two geographical areas or countries 110, 120. The fuel consumed (FC) 108 by individual vehicles having unique registrations or identifiers (IDs) 101, over a certain period of time 105 is recorded by the vehicle operator or “fuel entity” 150. Periodically, the vehicle operator uploads this data to a centralised “electronic registry” where it is stored and managed. Fuel consumption and emissions reports are then generated for each vehicle and a usage-to-area attribution rule is applied to the data in order to attribute fuel consumption and emissions to selected geographical areas 125. The attributed fuel consumption (AFC) can then be used to calculate emission fees for a particular area or country which are related to their level of imports.

8 The most recent set of claims were filed on 15 March 2011 and include two independent claims to a method and a system for reporting emissions from vehicles (claims 1 and 11) respectively. The wording of the claims is as follows:

1. A method for reporting emissions from vehicles of a type, from an activity in and between a plurality of areas, over a period of time, each vehicle associated with a fuel entity, the method comprising:

(a) providing an electronic registry through which data is recorded and managed,

(b) registering each said fuel entity as a fleet,

(c) obtaining and recording fuel consumption for substantially each vehicle of said vehicles, for said activity over said period of time, wherein said fuel consumption is obtained from said fleets,

(d) calculating attributed fuel consumption, for at least one area of said plurality of areas, in relation to a total of said fuel consumption and a predetermined usage-to-area attribution rule, wherein said rule is unrelated to both the amount of fuel purchased and fuel consumed at said area,

(e) optionally, deriving attributed emissions from corresponding said attributed fuel consumption, and deriving total emissions from said total fuel consumption, (f) producing a report containing a result, for at least one area of said plurality areas, wherein said result is selected from the group consisting of {said attributed fuel consumption, and said attributed emissions},

whereby the emissions from said vehicles are equitably apportioned to said plurality of areas accordingly to said usage-to-area attribution rule, and said attributed emissions or said attributed fuel consumption are reported for at least one area, thereby enabling their incorporation in the area-by-area overall emission reporting, and furthermore enabling differentiated emission reduction schemes, including rebates to areas with low responsibilities for and capabilities to reduce emissions.

11. A system for reporting emissions from vehicles, from an activity in and between a plurality of areas, over a period of time, each vehicle of a type and associated with a fuel entity, the system comprising:

(a) an electronic registry through which data is recorded and managed,

(b) means for registering each fuel entity as a fleet,

(c) means for obtaining and recording fuel consumption, for substantially each vehicle of said vehicles, for said activity over said period of time, wherein said fuel consumption is obtained through said fleets,

(d) means for calculating attributed fuel consumption, for at least one area of said plurality of areas, in relation to a total of said fuel consumption and a predetermined usage-to-area attribution rule, wherein said rule is unrelated to both the amount of fuel purchased and fuel consumed at said area,

(e) means for optionally, deriving attributed emissions from corresponding said attributed fuel consumption, and for deriving total emissions from said total fuel consumption,

(f) means for producing a report containing a result, for at least one area of said plurality of areas, wherein said result is selected from the group consisting of {said attributed fuel consumption, and said attributed emissions},

whereby the emissions from said vehicles are equitably apportioned to said plurality of areas accordingly to said usage-to-area attribution rule, and said attributed emissions or said attributed fuel consumption are reported for at least one area, thereby enabling their incorporation in the area-by-area overall emission reporting, and furthermore enabling differentiated emission reduction schemes, including rebates to areas with low responsibilities for and capabilities to reduce emissions.

The Law

- 9 The examiner has raised an objection under section 1(2)(c) of the Patents Act 1977 that the invention is not patentable because it relates to a business method and a program for a computer as such; the relevant provisions of this section of the Act are shown in bold below:

1(2) It is hereby declared that the following (amongst other things) are not inventions for the purpose of the Act, that is to say, anything which consists of-

(a)

(b)

(c) a scheme, rule, or method for performing a mental act, playing a game or doing business, or a program for a computer;

(d)

but the foregoing provisions shall prevent anything from being treated as an invention for the purposes of the Act only to the extent that a patent or application for a patent relates to that thing as such.

- 10 As explained in the notice published by the UK Intellectual Property Office on 8 December 2008¹, the starting point for determining whether an invention falls within the exclusions of section 1(2) is the judgment of the Court of Appeal in *Aerotel/Macrossan*².
- 11 The interpretation of section 1(2) has been considered by the Court of Appeal in *Symbian Ltd's Application*³. *Symbian* arose under the computer program exclusion, but as with its previous decision in *Aerotel*, the Court gave general guidance on section 1(2). Although the Court approached the question of excluded matter primarily on the basis of whether there was a technical contribution, it nevertheless (at paragraph 59) considered its conclusion in the light of the *Aerotel* approach. The Court was quite clear (see paragraphs 8-15) that the structured four-step approach to the question in *Aerotel* was never intended to be a new departure in domestic law; that it remained bound by its previous decisions, particularly *Merrill Lynch*⁴ which rested on whether the contribution was technical; and that any differences in the two approaches should affect neither the applicable principles nor the outcome in any particular

¹ <http://www.ipo.gov.uk/pro-types/pro-patent/p-law/p-pn/p-pn-computer.htm>

² *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371; [2007] RPC 7

³ *Symbian Ltd v Comptroller-General of Patents*, [2009] RPC 1

⁴ *Merrill Lynch's Application* [1989] RPC 561

case. But the *Symbian* judgment does make it clear, that in deciding whether an invention is excluded, one must ask does it make a technical contribution? If it does then it is not excluded.

- 12 Subject to the clarification provided by *Symbian*, it is therefore still appropriate for me, to proceed on the basis of the four-step approach explained at paragraphs 40-48 of *Aerotel/Macrossan* namely:
- 1) Properly construe the claim
 - 2) Identify the actual contribution (although at the application stage this might have to be the alleged contribution).
 - 3) Ask whether it falls solely within the excluded matter, which (see paragraph 45) is merely an expression of the “as such” qualification of section 1(2).
 - 4) If the third step has not covered it, check whether the actual or alleged contribution is actually technical.
- 13 The operation of this test is explained at paragraphs 40-48 of the decision. Paragraph 43 confirms that identification of the contribution is essentially a matter of determining what it is the inventor has really added to human knowledge, and involves looking at substance, not form. Paragraph 46 explains that the fourth step of checking whether the contribution is technical may not be necessary because the third step should have covered the point.
- 14 Mr Stochniol accepted that this was the right approach to take.

Construing the claims

- 15 The first step of the test is to construe the claims. I do not think this presents any real problems since both the applicant and the examiner appear to agree as to the meaning of the claims.

Identify the actual contribution

- 16 For the second step, it is necessary to identify the contribution made by the invention. Paragraph 43 of *Aerotel/Macrossan* explains that this is to be determined by asking what it is - as a matter of substance not form - that the invention has really added to human knowledge having regard to the problem to be solved, how the invention works and what its advantages are.
- 17 Again, I think this presents us with no real problems as the applicant and the examiner appear to have agreed that the contribution is as stated in paragraph 5 of the applicants letter dated 24 October 2010, the wording of which is as follows:

“a method for reporting emissions from vehicles of a type, such as ships or aircraft, from a given activity, for example international transport, in and between several areas, e.g. countries, over a period of time, each vehicle associated with a fuel entity, the method comprising: providing an electronic registry through which data is recorded and managed; recording fuel

consumption for each vehicle in the electronic registry; calculating attributed fuel consumption for an area, in relation to a total of fuel consumption and a predetermined usage-to-area attribution rule, wherein the rule is unrelated to both the amount of fuel purchased and fuel consumed at the area and reporting attributed fuel consumption for at least one area.”

Does the contribution fall solely within excluded subject matter? Is the contribution technical in nature?

Computer program

- 18 There is no doubt in my mind that the contribution requires a computer program for its implementation. However, the mere fact that the invention is effected in software does not mean that it should be immediately excluded as a computer program as such. What matters is whether or not the program provides a technical contribution.
- 19 The examiner throughout the proceedings has maintained that the contribution relates to a computer program running on conventional hardware, and that there is no technical contribution in terms of solving a technical problem within the computer itself. Furthermore, there is no technical process existing outside the computer which would otherwise save the invention from exclusion. Instead, he argues that the contribution lies in solving the problem of how to fairly allocate emissions from vehicles to specific geographical areas, a non-technical business process, which is solved using an arrangement of conventional computing hardware, and an associated computer program to store, manipulate and report data.
- 20 The applicant on the other hand argues that the contribution lies primarily in the integration of a centralised electronic registry in a multi-area emission reporting system and a new method of calculating attributed fuel consumption (or emissions). The registry being used to obtain and store emissions data which is then used to calculate and attribute emissions to individual countries.
- 21 At the Hearing, Mr Stochniol described the conventional approach used for aircraft, as implemented in the European Emission Trading Scheme (EU ETS), where emission registries are established in each EU country, and each airline is allocated to a specific country, and subsequently reports its entire emissions from flights to and from EU airports to that country's registry. For example, British Airways (BA) would report the combined emissions from all its aircraft to a registry in the UK, whilst Lufthansa (LH) would report its emissions to a registry in Germany. This requires a network of registries right across the EU. However, the invention requires a single centralised registry, which obtains and stores individual aircraft emissions, and uses a set of rules to calculate and attribute emissions to individual countries.
- 22 In summary, whilst the applicant acknowledges that the invention could be implemented using conventional computers and hardware, using various programming techniques and tools, he argues that the contribution provides a new physical integration of hardware, wherein a new centralised registry is

provided which is combined and integrated into the airlines systems, and thus provides the necessary technical contribution.

- 23 Having considered all the evidence made available to me, and all the arguments put to me at the hearing, I do not consider the invention to provide a technical contribution. What the applicant has done is to create a new program, albeit a clever one, which is able to collect and store large amounts of data originating from individual vehicles, and to use that data to calculate and attribute emissions to specific countries. It does not result in a better, faster or more efficient system nor do I consider the hardware or computer architecture to be anything other than conventional. This would therefore appear to me, to be no more than data storage and manipulation by means of a computer program, and since the invention does not provide a technical contribution, it falls squarely within the computer program exemption of section 1(2)(c).

Business method

- 24 The examiner also argues that the contribution in so far as it relates to a new and improved method for calculating and reporting emissions is excluded as a business method.
- 25 Whilst the applicant acknowledges that the invention is to be used primarily in attributing and reporting emissions as part of a market based emission reduction scheme, he argues that the new physical combination of hardware provides a technical contribution beyond a mere business method.
- 26 To my mind, what the applicant has done is to devise a new method of recording fuel consumption for a given type of vehicle, carrying goods between two or more countries over a period of time which is stored in an electronic registry. These records are then used to attribute fuel consumption and emissions to particular geographical areas using a predetermined usage-to-area attribution rule. The results can then be reported and used to calculate emission fees for a market-based emission reduction scheme aimed at reducing global vehicle emissions. One of the major advantages being to break the link between emission fees and the amount of fuel being purchased and consumed by a particular operator and/or country, and to establish a fee which is more representative of a countries level of imports. Again, I can see no technical contribution here, what the applicant is proposing is a new business process for calculating emission fees based on a new set of rules which I consider to be excluded as a business method under section 1(2)(c).

Conclusion

- 27 In the light of my findings above, I conclude that the invention as claimed is excluded under section 1(2) because it relates to a business method and a computer program as such. Having read the specification I do not think that any saving amendment is possible. I therefore refuse the application under section 18(3).

Appeal

28 Under the Practice Direction to Part 52 of the Civil Procedure Rules, any appeal must be lodged within 28 days.

PETER SLATER

Deputy Director, acting for the Comptroller