

OPINION UNDER SECTION 74A

Patent	GB2577960
Proprietor(s)	Anthony Thomas James
Exclusive Licensee	-
Requester	Bridle Intellectual Property Limited
Observer(s)	Culverstons Intellectual Property
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The request

1. The Comptroller has been requested to issue an opinion on the validity of the Patent, GB2577960. The request includes 22 documents, 7 of which were noted in the course of the original application. The request challenges whether the Patent is inventive, and whether it relates to excluded matter.
2. Observations were submitted by Culverstons Intellectual Property, which challenged whether the request amounted to a new question on inventive step, given that some of the cited documents were noted during prosecution. They also questioned whether the challenge on the basis of excluded matter should be considered, indirectly by suggesting that if the invention was excluded “surely this would have been raised” during examination. Observations in reply then followed from Bridle Intellectual Property Limited.

Preliminary matters – the request

3. As set out in the opinions manual in 3.4, the office will consider an inventive step (or novelty) issue as long as that relies on new documents, or documents only cited as category A. Here, whilst D1-D7 were considered in this application, the argument raised in the request relies on a combination of these documents with new documentary evidence, in order to make an inventive step argument. On that basis, it amounts to a new argument, and I shall consider it.
4. However, section 3.5 of the opinions manual makes a distinction for other patentability issues. The Opinions manual states:

An opinion request on whether the invention relates to other patentability issues, should also raise a new question that has not been considered in previous proceedings before the Office or elsewhere. Whilst each case will

be considered on its own merits, it is likely that a request on a case where it is clear that the applicant has overcome an objection raised during the course of examination or has satisfactorily addressed a challenge to the validity on those grounds, will not be considered to have raised a new question.

5. That section makes clear that if an applicant has already addressed an excluded matter challenge, then the office would (unless there is a change in case law, or new evidence shows that the contribution is different) not consider the question again. Here, Culverstons argue that this question would have been considered as a normal part of the examination process. They therefore imply that this does not amount to a new question, and therefore that the office should decline to give an opinion in this respect on the Patent. This point in relation to novelty/inventive step was considered in O/289/07, where the hearing officer said in paragraph 18: "It was I believe always the intention that the opinion service would not be used to repeat or in some way reappraise the examination of the patent performed either in this Office or at the EPO." And in paragraph 21 "Hence it would seem clear that the intent was always that there should at least be something new – the request should not simply seek to go over old ground. The rationale for this would seem to be, not unreasonably, that a patentee should not be asked to deal again with questions that he has already dealt with to the satisfaction of the Office pre-grant."
6. The resulting opinion practice is that that applies to documents cited as X or Y documents, and the office will consider arguments raised using A citations (that is to say documents noted as background art, but not used to raise a novelty/inventive step argument during examination).
7. I note that the request refers to D1 in its discussion of the prior art, in order to draw a conclusion about the contribution of the current application. The request itself does not use any of the other documents, in this discussion on exclusion and the contribution.
8. Section 74(3) reads:

The Comptroller shall issue an opinion if requested to do so under subsection (1) above, but shall not do so – (a) in such circumstances as may be prescribed, or (b) if for any reason he considers it inappropriate in all the circumstances to do so.
9. I believe Section 74(3)(b) gives the Comptroller broad discretion to accept or refuse to give an opinion. The opinions manual gives a non-exclusive list of circumstances where the office might refuse to give an opinion.
10. I note that Culverstons on behalf of the patentee address the approach to exclusion for this case. I further note that they question whether D1-D7 should be used to form an opinion in their discussion of novelty and inventive step. However, they make no such statement in relation to excluded matter, simply interpreting the contribution in the light of D1.
11. So where does that leave me. It is clear that the examiner did not raise an objection to exclusion. The opinions manual examples, which outline what would happen if an

objection had been raised, or if new citations were being used to suggest that the assessment of the contribution was incorrect do not match the circumstance here. I note too that the office has already given an opinion on excluded matter in Opinion 21/16. It is therefore my view that it is open to me to provide an opinion.

12. I also note that under Section 73(1A), that an opinion on exclusion does not open the same question for the Comptroller on whether to consider revocation.

Where the comptroller issues an opinion under section 74A that section 1(1)(a) or (b) is not satisfied in relation to an invention for which there is a patent, the comptroller may revoke the patent.

13. That means, that any opinion I do reach on the question of excluded matter, might be of assistance to the requester and perhaps the patentee, but it does not lead to any further action. With that also in mind, I am not convinced that in view of all of the circumstances, that I should withhold giving an opinion which deals with exclusion. I shall therefore set out my opinion on exclusion below.

The Patent

14. The Patent, GB2577960 was granted on 7 September 2021, and is currently in force. It relates to tracking the location of a person around a railway, using a display on a remote device, with the Engineer's Line Reference mileage and chains, and generates an alert/alarm if the person departs from a specific location. In the main embodiment this uses a GPS tracking device. Such systems are often referred to as geofences.
15. The Patent suggests that GPS is the preferred way of determining the location of individuals, and that tracking devices can also be applied to trolleys/trailers or other items. The Patent envisages a range of people from train drivers, supervisors, other workers and emergency staff who might usefully have access to that location information. The claims require that an alert or alarm is generated if the person departs from a predetermined worksite location.
16. As the patent sets out such alerts, may be push in app notifications, SMS messages, GSM cellular or two way radio calls. These alerts may provide an alert to all personnel assigned to a work location, or indeed, may track trolleys breaking free from Road-Rail vehicles, gathering speed.
17. The Patent has three independent claims, respectively to method, system and computer program product.

Claim 1: A method for tracking the location of a person being deployed on, or near, railway infrastructure and being assigned with a uniquely identifiable tracking device, comprising the steps of: displaying the location of the person on a map of the railway infrastructure on a screen of a remote computing device; displaying the Engineer's Line Reference (ELR) mileage and chains of a railway network on the map of the railway infrastructure; assigning a virtual geographic perimeter to a

predetermined worksite location of the railway infrastructure;
and generating an alert or alarm condition if the person departs
from the predetermined worksite location.

Claim 20: A system for tracking the location of a person being deployed on, or near, railway infrastructure and being assigned with a uniquely identifiable tracking device, comprising: means for displaying the location of the person on a map of the railway infrastructure on a screen of a remote computing device; means for displaying the Engineer's Line Reference (ELR) mileage and chains of a railway network on the map of the railway infrastructure; means for assigning a virtual geographic perimeter to a predetermined worksite location of the railway infrastructure; and means for generating an alert or alarm condition if the person departs from the predetermined worksite location.

Claim 24: A computer program product for tracking the location of a person being deployed on, or near, railway infrastructure and being assigned with a uniquely identifiable tracking device, comprising: computer program means for displaying the location of the person on a map of the railway infrastructure on a screen of a remote computing device; computer program means for displaying the Engineer's Line Reference (ELR) mileage and chains of a railway network on the map of the railway infrastructure; computer program means for assigning a virtual geographic perimeter to a predetermined worksite location of the railway infrastructure; and computer program means for generating an alert or alarm condition if the person departs from the predetermined worksite location.

18. Before considering the documents put forward in the request, I will need to construe the claims of the patent following the well-known authority on claim construction which is *Kirin-Amgen and others v Hoechst Marion Roussel Limited and others* [2005] RPC 9. This requires that I put a purposive construction on the claims, interpret it in the light of the description and drawings as instructed by Section 125(1) and take account of the Protocol to Article 69 of the EPC. Simply put, I must decide what a person skilled in the art would have understood the patentee to have used the language of the claim to mean. None of the submissions suggest that there is any particular difficulty in interpreting the claim. However, there are a couple of points brought out.
19. An Engineer's Line Reference mileage and chains is an established way of recording distances on the railway network. Indeed, the request lists D17 and D18 to demonstrate this point.
20. In the request, the distinction drawn in the Patent between a remote computer and a mobile communications device is noted. As set out on page three, the remote computing device may be a tablet, handheld computer, personal digital assistant, media player, a desktop computer, notebook, virtual reality headset, smart watch, smart TV or any other digital media consumption device. A mobile communications

device may be a cellular mobile phone, smartphone or a two-way radio. However, this term does not appear until claim 4.

21. The request also notes that the geofenced worksite location may or may not be dynamic and may be defined as being a radius around a uniquely identifiable tracking device attached to a markerboard. It also notes that an audible or haptic warning or alert may be emitted from the markerboard, or from a personal device.
22. None of this, however, I think leads to questions about the scope of the claim.

The Prior Art

23. The request includes some 22 documents, so I do not intend to document each document in detail. However, they fall into eight groups, which I shall set out here.

D1-D7: Geofencing patent applications used largely for tracking children or offenders and alerting someone when they stray. These documents were cited by the original examiner during pre-grant process. Other than D1, none suggest use in the rail industry.

D8, D9: Further geofencing examples, raised in the request, and not considered by the examiner. D8 is an overview of geofences and suggests use in child/elderly/pet tracking as well as for marketing purposes as people come near to shops. D9 is again an overview, mentioning application as a chaperone for home/school/work location monitoring for example for offenders.

D10, D11, D12: Geofences used in the rail industry

D11 and D12 are webpages from the same company and are in effect to be taken together. D11 shows tracking of individuals and D12 shows that this can be applied in the rail industry. Whilst I note that the disclosure in D11 suggests that it tracks attendance of contractors on-site, the document is not explicit that this is done through a geofence.

However, there is another issue with D11 and D12, which Culverstons raise in their observations. These two documents are undated, although a copyright notice implies that they are from 2021, and therefore after the filing date of this application. In the observations in reply, Bridle do not address this issue. Given that their relevance as prior art is therefore put at issue, and that the arguments raised do not I think rely only on these documents, I do not think that I therefore need to consider D11 and D12 further.

D13, D14/D15: Proximity warning alarms which alert the user that another worker is nearby.

D13 uses a set of transmitters/receivers, to create a safety bubble around for example a forklift, which may be directional, but creates an alert when two devices are too close.

D15 is listed as an English language version of D14. The copies that I have here on file, do not however appear to match. However, Culverstons accept that these documents show a proximity sensor that can be worn by personnel and affixed to a vehicle such as a fork lift truck, and a display unit in the vehicle alerts the driver if tagged staff come into proximity. I note also the point made by Bridle that D15 has 2020 dates on it.

D16: Which is listed by Bridle to address claim 18 feature of sending a notification to a group of contacts. Whilst this document allows location tracking, and alerts to be sent in the event of unusual events, such as a fall, there is no explicit suggestion that this uses a geofence.

D17, D18: Documents which set out what the Engineer's Line Reference milage is. Whilst Culverstons attempt to throw some doubt on dating of these documents, I am not convinced that they attempt to argue that Engineer's Line Reference milage is not well established at the date of filing of this application.

D19-D21: GPS mapping applications, which Bridle suggest all include ELR milage. Culverstons dispute that this is in all of the documents. Having reviewed the document copies provided, D20 and D21 do not appear to me to show the ELR feature identified by Bridle. However, Culverstons appear to accept D19 does indeed show a mapping system which includes a display of ELR milage. In their observations in reply Bridle reassert that these systems include ELR. Even if I am not able to confirm that, ultimately, I can still use D19 in my analysis below, so I do not think that my opinion turns on whether other documentation might confirm Bridle's view of D20, D21.

D22: JP2006224737 which is a GPS monitoring system which alerts a set of workers (watch members) when a train is approaching. This is done with three zones "safe", "caution" and "dangerous" allowing the monitoring of position of the workers. However, as Culverstons note, there does not appear to be a display of this information remotely.

24. The request does not attempt to argue that any of these documents anticipate the claims. Culverstons in their reply confirm that this is also their view.

Inventive Step

25. To determine whether an invention defined in a particular claim is inventive over the prior art, I will rely on the principles established in *Pozzoli SPA v BDMO SA* [2007] EWCA Civ 588, in which the Windsurfing steps were reformulated:

- (1)(a) Identify the notional "person skilled in the art";*
- (1)(b) Identify the relevant common general knowledge of that person;*
- (2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;*
- (3) Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the*

claim or the claim as construed;

(4) Viewed without any knowledge of the alleged invention as claimed, determine whether those differences constitute steps which would have been obvious to the person skilled in the art.

26. *Step (1)*: In the request, Bridle suggest that the person skilled in the art is an engineer working in location-based alarm systems. Culverstons dispute this, suggesting that any invention that is to be used on the railway network, the relevant skilled person is a railway engineer. I do not agree with Culverstons or Bridle fully on this point. Whilst it might be the case that in this business context, it is a railway engineer who might first be asked about safety solutions; it is also the case that the skilled person can be considered to be a team or a skilled person acting under expert advice.
27. Culverstons go on to argue that in the railway field, people are conservative, and that paper-based Person in Charge of Possession (PICOP) and electromechanical solutions were established practice in this area. That may be the case, and there are two things I must take from that contention. First it would suggest that I should not rely on some of the prior art here, specifically D1, D10 and D22 to show that location based alert systems were common general knowledge at the time, within the railway industry. I have not been presented with evidence of the extent to which D1, D10 or D22 were adopted, and I do not therefore think that I should take geofences to be common general knowledge in the railway industry.
28. Nonetheless, the existence of these documents cuts through some of this question about who the skilled person should be here. Faced with the disclosure of D1, D10 and D22, I shall need to consider what the skilled person might consider. In that circumstance, the railway engineer, faced with disclosure of use of location-based alarms, within the railway industry, cannot I think be blind to the idea that location based alarms are a potential solution. That I think puts us in a different situation to the vacuum cleaner engineer, discussed in the Hoover v Dyson case that Culverstons refer to. I think it is reasonable therefore to assume that he will take the advice of an engineer working in location-based alarm systems about how best to implement such solutions. That is of course a question I will need to return to at Step 4.
29. To return to the question of what the common general knowledge might be. Bridle assert that the ELR is marked on many items of railway infrastructure such as bridges and culverts. It seems to me that the use of Engineer Line Reference mileage is also common general knowledge in the rail industry to label locations along the track. D17 and D18 are therefore in my view examples of that.
30. I note that D19 shows that GPS maps for the rail industry included this ELR mileage, but on the basis of a single document, I should be wary of considering that such GPS driven mapping with ELR mileage is common general knowledge.
31. *Step (2)*: Both Bridle and Culverstons appear to agree that the inventive concept lies in the tracking of a person, displaying the location of the person on a map of the railway infrastructure, together with ELR mileage and chains on a screen of a remote computing device, assigning a virtual geographic perimeter to the location and generating an alert or alarm condition if the person departs from the location.

32. *Step (3)*: The request uses D1 as the basis for this discussion. Suggesting that the only difference is the use of an Engineer's Line reference and chain on a screen of a remote computing device. Culverstons agree that this is the difference in relation to this piece of prior art. At examination stage, this ELR feature was added to claim 1, in the amendment of 2nd November 2020. The examiner then did not further pursue the argument he had raised in their earlier report.
33. D1 is a Chinese document, and I have not been provided with a translation of this document. Culverstons describe D1 as follows:

D1 discloses a guard system applied to railroad maintenance personnel. The system comprises an intelligent safety helmet (tracking device) worn by a person. The helmet comprises a satellite receiver for determining the location of the person, the location being sent to a centralised manager device (remote computing device). A hand-held manager terminal (further remote computing device) is connected with the centralised manager device and is used for loading a working region (virtual geofence perimeter). When the person is outside the working region an alarm is generated. An alarm device may be worn by the person and connected with the centralised manager. The alarm may be an intelligent bracelet. The positional information may be obtained in real time and may be to track resolution. A manager can remotely monitor position of personnel via the manager terminal. The assigning of a geofence is considered implicit to the loading of a working region.

34. Culverstons do not directly dispute this characterisation of D1. However, they say that there is no explicit disclosure of displaying the location of the person on a map of the railway infrastructure on a screen of the remote device. Rather they accept that the document only shows an alert (vibration and/or messaging) when personnel go outside of the work area.
35. Bridle suggest that because the information is monitored by someone remotely, that this implicitly has a display screen. They do not go on to discuss whether it is implicit or why the skilled person would choose to include a map.
36. I am not convinced that what Bridle and Culverstons say in relation to D1 fully reflects the picture here. Both sides suggest that D1 does not disclose the display of ELR mileage on the map of the railway infrastructure. As Bridle acknowledge D1 does not set out what the display is. As set out in MoPP 2.07:

While it is generally necessary, for a finding of lack of novelty, for all the features of the claim under consideration to have been explicitly disclosed, the teaching implicit in a document may also be taken into account. If a person skilled in the art would conclude that an earlier invention would, as a matter of normal practice, necessarily be performed in a way which would fall within the scope of the claim under consideration, then the matter defined by the claim is not new.

That means I think the difference at step 3 to D1 is greater than that expressed in the request and observations. I am not convinced that D1 is necessarily performed in a way in which the remote device displays a map with the location of individuals on a screen. I am not therefore fully convinced that this feature is implicit.

37. Step (4) Starting from D1, there are two things that I must be wary of. First if it was the case that the examiner believed that ELR within mapping application were part of the common general knowledge, then I am not convinced that this is a new question. Secondly, what is the extent to which the skilled person would adapt D1 to include this ELR within the system, when deciding to apply it to the rail industry with remote mapping showing the location of individuals. Ultimately, I think that means there are two steps required, firstly the geofencing expert is consulted and suggests implementing that system, and then at a second stage there is realisation that adding ELR information would be helpful to the user. A clear case for that is not made out in the request for this second step also to be taken.
38. I should at this stage also note the point made by Culverstons in relation to Union Carbide v BP chemicals: "Inventions can lie in finding out that that which those in the art thought not to be done, ought to be done."
39. I am therefore not convinced by the evidence and argument set out in relation to D1 that I can conclude that the independent claims are not inventive. That is to say that I do not think that the additional argument or documents cited provide evidence to show that using the Pozzoli approach I can draw a different conclusion to the original examiner.
40. Whilst the request basis its argument on D1, it also goes to some lengths to bring other documents to my attention. Having reviewed the documents, it seems to me that I should also consider what the difference might be from D10 or D22. This is I think based on the scenario that the railway engineer notes that Geofence based safety systems are available for the railway environment. The railway engineer would then seek the advice of an expert in geofencing about how to effectively implement such a system. Indeed, it seems to me that it is more likely that a geofencing expert starts by looking at what has been implemented in the railway industry if they were consulted by a railway engineer.
41. That takes me back to step 3, what is the difference between D10 and D22 and the claimed invention. First to look at D10. This document provides an overview of a system in which Geofencing is used. The section on Mapping data suggests that GPS technology is used to monitor the position of an individual and uses programmed layers to trigger warnings if that person enters a hazard area. Whilst there is a suggestion that this is used as a visual tool during safety briefings, there is no detail that suggests that there is live tracking of individuals by someone remotely. I would of course also need to conclude that the additional step of using of ELR was obvious within such a remote display.
42. Similarly, D22 aims to reduce danger to individuals near the track and provides for that information to be transmitted to a remote device, such as on the train. That might be used to ensure that the train brakes when approaching an area where people are on or close to the track. However, the information displayed appears to me to be tabular, rather than providing a map display. Moreover, it seems possible to me that the setup of driver's cabs is largely conventional and simple to ensure a train driver's attention is focussed on the track ahead, with only a small number of safety devices such as a Deadman's handle. Whilst display screens are used, in my limited knowledge, they are either for displaying doors for example in guard-less trains or for digital speedometers and the like. I certainly have not been presented with evidence

that would suggest the use of mapping displays in drivers cabs might be established or common knowledge.

43. The request does not set out how the resulting gap to the claim, in terms of that remote display, and the specifics of the claim might be bridged. I do not therefore think on the evidence and argument before me that the claim is obvious based on D10 or D22.
44. Having reviewed all the documents provided, I do not therefore think that I have been presented with a convincing argument or evidence that the independent claims are obvious. I shall not therefore need to go on to consider the more detailed features in the dependent claims and the mapping provided of features across these 22 documents to those claims.

Excluded Matter

45. Both Bridle and Culverstons agree that the approach I should take is based on the Aerotel decision. They also both address the signposts from *HTC v Apple* [2013] EWCA Civ 451.
46. The test which is applied to patent applications in order to ascertain whether they relate to excluded subject matter as such is defined in paragraph 40 of the Court of Appeal decision in *Aerotel Ltd v Telco Holdings Ltd Macrossan's Patent Application* [2007] RPC 7 (*Aerotel/Macrossan*).
47. This test for patentability comprises the steps:
 - (1) properly construe the claim
 - (2) identify the actual contribution (although at the application stage this might have to be the alleged contribution); This is “an exercise in judgment probably involving the problem said to be solved, how the invention works, what its advantages are” (see paragraph 43 of *Aerotel/Macrossan*); it is essentially a matter of determining what it is the inventor has really added to human knowledge, and involves looking at the substance, not the specific form of the claim(s).
 - (3) ask whether it falls solely within the excluded subject matter
 - (4) check whether the actual or alleged contribution is actually technical in nature.
48. In *Symbian Ltd's Application* [2009] RPC 1 the court made it clear that in the course of making that inquiry, the question “is the contribution technical?” must be asked but that it does not matter whether it is asked at step 3 or 4.

Applying the test in *Aerotel/Macrossan*

49. **Step (1) – properly construe the claim(s).** I have already discussed the claim construction above. The objective is to help ensure safety of individuals, but the

claims define the invention in terms of creating an alert or alarm if the person departs from the worksite location and displaying the ELR and the location of a person on a map. They also place the invention in the context of a railway network. I do not think that there is anything different about the context of the Aerotel test that suggests I need say anything more about that construction.

50. **Step (2) - identify the actual contribution.** When considering the contribution, I must consider what the overall effect of that might be. I must not simply cut the claim into pieces, for example, from a technical perspective, whether a distance is expressed in ELR mileage, or any other unit which might be easily understood by a user, does not change the technical result. Rather I must also consider how those pieces interact with each other.
51. If either at the detailed level, or at this broader level I conclude that a feature or the way that they operate together provides a technical contribution, then the claim as a whole should I think be allowable.
52. Bridle suggest that the contribution relates to the display of the ELR on a map of the remote device screen. Culverstons describe the contribution as displaying the ELR mileage on the map of the railway infrastructure. However, they caution against the conclusion that the display of ELR mileage is not linked in any technical manner to the tracking device or geofencing alarm system. They suggest that this has the effect of ensuring greater flexibility and ease of use for the user, enabling the setup of the geofence to be carried out with greater confidence and security. Both parties analyse the contribution by looking at D1.
53. Bridle argue that what the inventor has added to the stock of human knowledge is not the hardware, noting what is disclosed in D1 about the transmission of data to a remote user of the location of individuals in the railway industry.
54. I am not convinced that the characterisations of the contribution put forward by either Bridle or Culverstons are broad enough, were I to start from D1 as they do, as showing the state of the art. Starting from D1, I would therefore characterise the contribution as a method of alerting the user at a remote computer device that an individual has departed a determined location, by tracking the individual and providing an alert or alarm and displaying the person's location and a distance on a map (such as the ELR).
55. I am conscious too of what is shown by the other geofencing documents, given the result in *Aerotel Ltd v Wavecrest Group Enterprises Ltd & Ors* [2008] EWHC 1180 (Pat) (noting paragraphs 219, 220 and 225 in particular). In that case, looking at the arrangement of a special exchange, albeit for a different purpose, in a different piece of prior art, lead to a different conclusion. To identify the contribution, I should look at what technical means are required and what the effect of that is, rather than the context in which that is used. Here having reviewed the documents provided about the state of the art that means I think that I should also look at the contribution in the context of D2.
56. D2 shows a tracking arrangement for a child, where when they depart a given area (such as a radius around an adult) – then an alert is generated on the remote adult's phone, alongside a map. Of course, the inventor here has applied such a system to

a new problem, locating staff in a railway environment. They have also identified that the display of ELR mileage is of assistance in this railway environment.

57. I would therefore characterise the contribution as the application of a geofencing arrangement to the task of tracking individuals' location in a railway environment, including the display of ELR mileage. That has the advantage of making the system easier for the user, and I imagine for example that someone sent to an incident could use the relayed ELR mileage and the existing mileage signage on the railway network to get to the right place more easily.
58. The Patent itself discusses a couple of different potential applications, in terms of response to an incident and monitoring safety. However, I also note what is said on the opening page, about keeping a log of who has worked where, for how long. That enables a supervisor to check workers are working on the right assets, and I imagine also to determine whether a worker is at work, and for how long they have been working on a task – so that he can better organise the workforce.
59. There does not appear to me to be anything special about the railway environment which means that the technical problem involved is different, or that its application to that environment brings for example a more accurate measurement. As a result, I do not think that there is some additional technical benefit in that environment. I say that mindful of what was said in relation to the contribution provided by an alarm notification in paragraph 32 of *Protecting Kids the World Over (PKTWO) Ltd, Re [2011] EWHC 2720 (Pat) [PKTWO]*

In the context of the present case, I would hold that the contribution made by claim 33 includes, in addition to the features identified by the Hearing Officer, the generation of a more rapid and reliable alarm notification. Viewed in that way, although, at a high level of generality, alarm notifications were not novel, the particular alarm notification described in the specification and claimed in claim 33 was not known and formed part of the contribution to human knowledge made by the application.

60. Of course, the context is different to D2. I have therefore reflected that in my suggestion for the contribution: the application of a geofencing arrangement to the task of tracking individuals' location in a railway environment, including the display of ELR mileage.
61. I think that brings me closer to the contribution that the requestor and observer had identified, but it is still not what either had alleged the contribution to be. As shown in *Aerotel Ltd v Wavecrest Group Enterprises Ltd & Ors [2008] EWHC 1180 (Pat)*, if one of the starting points leads to exclusion, then the case will be excluded. If I find that the contribution I have identified is not excluded, then I should return to the contribution in the context of D1.
62. **Step (3) - ask whether it falls solely within the excluded subject matter.** Of course, the contribution I have identified is different to that identified in the request and the observations, so there is a limit to the extent to which the points made by *Bridle* and *Culverstons* are applicable to this different contribution. Whilst the request does not make specific reference to the signposts, they are addressed in both the observations and the observations in reply.

63. These signposts were set out at paragraph 40 of AT&T Knowledge Ventures/Cvon Ltd [2009] EWHC 343 (Pat), and modified in HTC Europe Co Ltd v Apple Inc (Rev 1) [2013] EWCA Civ 451:

- i) whether the claimed technical effect has a technical effect on a process which is carried on outside the computer;
- ii) whether the claimed technical effect operates at the level of the architecture of the computer; that is to say whether the effect is produced irrespective of the data being processed or the applications being run;
- iii) whether the claimed technical effect results in the computer being made to operate in a new way;
- iv) whether the program makes the computer a better computer in the sense of running more efficiently and effectively as a computer;
- v) whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.

64. Bridle in their observations in reply suggest that the display of ELR mileage on a screen has no technical effect. Culverstons suggest that the first technical effect outside the computer is the efficiency of the setting up of the virtual geographical perimeter assigned to the worksite location. They further suggest that the display allows the set up to be done with greater confidence and control, since the unique ELR codes provides precise geospatial information. They do not elaborate this point. It is possible that they mean that the user is better able to set up the right geographical perimeter because the ELR mileage is well understood in the industry. It may also be that the presence of physical ELR mileage markers around the railway makes that process easier in practice.

65. In sum, these are certainly useful features that make the system more attractive to the user, but I am not convinced that they have a technical effect on a process carried on outside of the computer. I note there is no control of another process, and there does not appear to be any suggestion in the patent that the use of an ELR mileage per se leads to a more accurate location. In the underlying embodiment, GPS is still used to provide that location tracking, and the accuracy of that GPS reading is not changed.

66. As I have already alluded to, the presence of this alert or notification might lead to an argument that it is similar to the invention in PKTWO. However, the facts here appear to be different. As D2 shows, whilst the context is different the idea of location tracking and transmission to a remote device is established. I am led therefore to the effect at the remote device being a particular display of ELR – rather than a more accurate location or as in PKTWO an alert that was faster. At that level, the effect is simply the display of that information.

67. Taking all of this into account, I am not therefore convinced that the current application provides a technical effect that meets the first signpost.

68. Culverstons make no argument based on the second signpost, and I do not believe

that the effect is at the architectural level of the computer, so the second signpost is not met. Culverstons then suggest that the fact that the method is a new one, then the computer is made to operate in a new way. Bridle challenge that assertion, suggesting that this signpost refers to changes in the way the computer process data. Ultimately, I agree with Bridle, I do not think that the third signpost is met in this case.

69. Culverstons then argue that since the method provides improved visibility, usability and reliability even in challenging environments, that the method operates in a more efficient and effective way, meeting the fourth signpost. Bridle dispute this, again indicating that the fourth signpost is concerned with the way the computer operates. Before reaching a conclusion, I should note that the point about more reliably made by Culverstons, is not I think intended to suggest that the location determination itself, or the computer becomes more reliable. It may be that the user, who is aware of ELR mileage is better able to use the system, because of his knowledge or markers on the railway infrastructure. Again, I agree with Bridle, I do not believe that the computer itself can be seen to be more efficient or effective in the sense of the fourth signpost.
70. Culverstons then suggest that since the invention provides a technical solution to problems with the known prior art, that the fifth signpost is met. Bridle's response, turns back to the contribution in suggesting that the contribution is the feature or features which are not disclosed in the prior art. Here, I do not think that either position is correct. The contribution relates to the overall effect, and I have already discussed that above. The fifth signpost looks for whether a technical problem inside the computer has been solved (noting paragraph 25 and 30 of the AT&T decision). I do not therefore think that the current application solves such a technical problem, and I do not therefore believe that the fifth signpost is met.
71. To some extent, there is nothing surprising I think in that analysis, most of the signposts are concerned with distinguishing what the effect of software is inside a computer. It is the arguments around the effect outside of the computer where Culverstons have been able to present more in terms of what the outcomes of the method here are.
72. **Step (4) check whether the actual or alleged contribution is actually technical in nature.** Looking at the overall picture here: whilst Culverstons suggest that a plethora of communications and activities are performed by physical devices; I have concluded that what is proposed is not a new arrangement of hardware. Nor does it seem to me that the individual benefits, in terms of what is presented to the user, the internal workings of the computer or some effect outside of the computer, provide a technical effect. Even when I take a step back, it does not seem to me that the realisation that the geofencing system can be applied in the railway environment, and usefully include ELR mileage leads to a technical improvement.
73. I therefore conclude that claims 1, 20 and 24 relate to a computer program and/or the presentation of information as such, and are therefore excluded under Section 1(2)
74. Having concluded that the independent claims relate to an invention that is excluded; I must consider whether I should go on to consider the dependent claims. I am

conscious that I have already gone further than the request or the observations, in analysing the independent claims, in the light of a different document. I did so because I was not convinced that the analysis that either party had set out fully convincing. That has led me to focus on a different document to establish the contribution and neither the requestor nor the observer have addressed the dependent claims in their submissions on excluded matter. I note also that the dependent claims go in several different directions, focussing on additional functions, constructional details and further specifying the devices used.

75. I am also conscious that the Opinions service is intended to be a low-cost forum for parties to gain a non-binding opinion. I am not therefore convinced that in these circumstances I should go on to consider the dependent claims.

Opinion

76. It is therefore my opinion that claims 1, 20 and 24 are novel and inventive in respect of the prior art raised in this request. It follows that the dependent claims are also inventive.
77. Further, it is my opinion that claims 1, 20 and 24 relate to an invention that is excluded under Section 1(2). I have not gone on to look at the dependent claims.

Robert Shorthouse
Examiner

NOTE

This opinion is not based on the outcome of fully litigated proceedings. Rather, it is based on whatever material the persons requesting the opinion and filing observations have chosen to put before the Office.