# FROM DEEPSOUTH TO THE GREAT WHITE NORTH: THE EXTRATERRITORIAL REACH OF UNITED STATES PATENT LAW AFTER RESEARCH IN MOTION

DANIEL P. HOMILLER<sup>1</sup>

#### ABSTRACT

In the Internet age, complex telecommunications systems are often deployed with little regard for international borders. In NTP, Inc. v. Research in Motion, Ltd., the Federal Circuit determined that one such system infringed several U.S. patents, despite the fact that an essential element of the system was located outside the territorial United States. This iBrief argues that the Federal Circuit erred in invoking the "control and beneficial use" test, which it culled from the very few prior cases addressing extraterritorial application of U.S. patent law. In doing so, the court disregarded the Supreme Court's direction in Deepsouth Packing Co. v. Laitram Corp. that the United States' patent laws make no claim to extraterritorial effect.

#### INTRODUCTION

In 1993, as the astonishing potential of the burgeoning Internet was just becoming apparent, Professor Dan L. Burk made a prediction:

The dissolution of geographic, political, and temporal barriers made possible by global computer networks may pose a new challenge to the operation of U.S. patent law – a challenge not yet fully realized and likely impossible for the framers of the present patent code to anticipate, but a challenge whose parameters can already be seen.<sup>2</sup>

Eleven years later, the Court of Appeals for the Federal Circuit faced this challenge – and flinched.

<sup>&</sup>lt;sup>1</sup> J.D. Candidate, 2006, Duke University School of Law; M.B.A., Duke University Fuqua School of Business; M.S. in Electrical Engineering, Virginia Polytechnic Institute and State University; B.E. in Electrical Engineering, Georgia Institute of Technology. The author would like to thank Kenneth Bassinger and Professor James Boyle for helpful discussions and comments.

<sup>2</sup> Dan L. Burk, *Patents in Cyberspace: Territoriality and Infringement on Global Computer Networks*, 68 Tul. L. Rev. 1, 38-39 (1993).

In *NTP*, *Inc. v. Research in Motion, Ltd.*, <sup>3</sup> the United States Court of Appeals for the Federal Circuit faced the question whether the defendant's popular BlackBerry system, a complex wireless messaging service, infringed several U.S. patents despite the fact that a critical element of the system was located in Canada and from there coupled via the Internet to the remaining elements located in the United States. <sup>4</sup> The court answered in the affirmative, holding that since the "control and beneficial use" of the system was in the United States, the "situs of the 'use'" was in the United States for the purposes of infringement analysis. <sup>5</sup>

This iBrief argues that the Federal Circuit based its conclusion on a flawed understanding and application of the "control and beneficial use" test it gleaned from the few earlier cases addressing similar situations. Worse, the court's decision disregards the Supreme Court's clear instruction in Deepsouth Packing Co. v. Laitram Corp. 6 that courts should interpret patent law conservatively, particularly when questions of extraterritorial sovereignty are implicated, and leave to Congress the task of extending the patent grant, if such an extension is warranted. This iBrief begins with an outline of the Federal Circuit's analysis in *Research in Motion*, followed by a description of the thin body of pre-Internet case law that provided the basis for that analysis. Part III criticizes the court's reasoning, while Part IV suggests that its decision not only creates additional uncertainty in the application of patent law to international communication networks, but also signals a continued willingness by the federal courts to increase the territorial coverage of the patent grant, even in the face of contrary instructions from the Supreme Court, whenever the interests of U.S. patent holders are threatened.

## I. THE FEDERAL CIRCUIT'S HOLDING IN RESEARCH IN MOTION

Research in Motion, Ltd. ("RIM") was accused of infringing five patents directed to "integrat[ing] existing electronic mail systems with RF wireless communications networks." The district court ultimately ruled on

<sup>&</sup>lt;sup>3</sup> 392 F.3d 1336 (Fed. Cir. 2004).

<sup>&</sup>lt;sup>4</sup> *Id.* at 1368. The BlackBerry system couples conventional enterprise and Internet-based e-mail systems to a wireless network, allowing users to retrieve and send messages with a portable wireless device. See *id.* at 1341-43 for a detailed description of the BlackBerry system.

<sup>&</sup>lt;sup>5</sup> *Id.* at 1370.

<sup>&</sup>lt;sup>6</sup> 406 U.S. 518, 530-31 (1972).

<sup>&</sup>lt;sup>7</sup> Research in Motion, 392 F.3d at 1341. ("RF" stands for "radio frequency"). The five patents, U.S. Patent Nos. 5,436,960 (issued Jul. 25, 1995); 5,625,670 (issued Apr. 29, 1997); 5,819,172 (issued Oct. 6, 1998); 6,067,451 (issued May 23, 2000); and 6,317,592 (issued Nov. 13, 2001), all derived from the same

sixteen claims; RIM was found to infringe all of them.<sup>8</sup> On appeal, RIM challenged the district court's construction of several claim terms. The Federal Circuit rejected all of RIM's challenges but one, reversing the district court's interpretation of the term "originating processor," and remanded the case to the district court for further proceedings on five of the sixteen claims.<sup>10</sup>

- RIM also challenged the district court's holding that "the fact that the BlackBerry relay is located in Canada is not a bar to infringement in this matter." According to RIM, section 271(a) of the Patent Act<sup>12</sup> provides that direct infringement of a U.S. patent should only be found if *all* of the accused activity takes place inside the United States. Therefore, urged RIM, since a key element of the system (the BlackBerry Relay, corresponding to an "interface" element in several of the claims in suit) was located in Canada, direct infringement in the United States was not possible under section 271(a). In making this argument, RIM relied on *Deepsouth Packing Co. v. Laitram Corp.*, described by the court as "the seminal case addressing the territoriality of section 271(a)."
- ¶6 Deepsouth involved an infringer who had been enjoined in an earlier proceeding from making or selling a patented machine used for deveining shrimp. <sup>18</sup> The infringer sought a modification of the injunction to

initial application and thus contained the same written description. *Id.* Between them, these patents contain an astounding total of 1,594 claims!

<sup>&</sup>lt;sup>8</sup> *Id.* at 1344. NTP was awarded almost \$54 million in damages; the court also permanently enjoined further use of the BlackBerry system and devices in the United States, but stayed the injunction pending appeal. *See id.* at 1339. <sup>9</sup> *Id.* at 1351.

<sup>&</sup>lt;sup>10</sup> *Id.* at 1366. On March 16, 2005, RIM announced a settlement with NTP, under which it agreed to pay NTP \$450 million. *BlackBerry Maker Agrees to Settle Patent Dispute*, WALL ST. J., Mar. 17, 2005, at B4.

<sup>&</sup>lt;sup>11</sup> Research in Motion, 392 F.3d at 1367 (quoting the district court).

<sup>&</sup>lt;sup>12</sup> 35 U.S.C. § 271(a) (2000). Section 271(a) states "Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefore, infringes the patent."

<sup>&</sup>lt;sup>13</sup> Research in Motion, 392 F.3d at 1367. Rephrased more precisely by the court, "RIM's position is that if a claim limitation of a patented system would only be met by a component of the accused system . . . located outside the United States, then the entire system or method is beyond the reach of section 271(a)." *Id.* at 1368.

<sup>&</sup>lt;sup>14</sup> *Id.* at 1367.

<sup>&</sup>lt;sup>15</sup> *Id*.

<sup>&</sup>lt;sup>16</sup> 406 U.S. 518 (1972).

<sup>&</sup>lt;sup>17</sup> Research in Motion, 392 F.3d at 1368.

<sup>&</sup>lt;sup>18</sup> Deepsouth, 406 U.S. at 519-20.

allow him to export the machines unassembled.<sup>19</sup> The Supreme Court held that the unassembled machines could not infringe the patent under section 271(a) because the right to exclude granted by the patent applied only to the "operable assembly of the whole and not the manufacture of its parts."<sup>20</sup> The Court suggested that Congress could extend the coverage of the patent law if it wished;<sup>21</sup> Congress later responded to *Deepsouth* by adding section 271(f), which specifically extends liability for the export of unassembled inventions.<sup>22</sup>

Since the BlackBerry system does not fall under section 271(f), RIM argued that the logic of *Deepsouth* would preclude infringement, as one claimed element of the accused system was not found within the United States. The Federal Circuit, however, found that the "use" of the system was indeed in the United States, serting that "[t]he case before us can be distinguished from *Deepsouth* in that 'the *location* of the infringement is within United States territory, not abroad as in *Deepsouth*." Thus, the

<sup>&</sup>lt;sup>19</sup> *Id.* at 524.

<sup>&</sup>lt;sup>20</sup> *Id.* at 528.

<sup>&</sup>lt;sup>21</sup> See id. at 530 ("When, as here, the Constitution is permissive, the sign of how far Congress has chosen to go can come only from Congress.").

<sup>&</sup>lt;sup>22</sup> 35 U.S.C. § 271(f)(1) ("Whoever without authority supplies or causes to be supplied in or from the United States all or a substantial portion of the components of a patented invention, where such components are uncombined in whole or in part . . . shall be liable as an infringer."); *Research in Motion*, 392 F.3d at 1369.

<sup>&</sup>lt;sup>23</sup> See Research in Motion, 392 F.3d at 1367 ("[W]e conclude that subsection(a) is the appropriate vehicle for NTP's infringement suit . . .").

<sup>&</sup>lt;sup>24</sup> *Id*.

<sup>&</sup>lt;sup>25</sup> *Id.* at 1370.

<sup>&</sup>lt;sup>26</sup> *Id.* at 1369 (quoting Decca Ltd. v. United States, 544 F.2d 1070, 1074 (Ct. Cl. 1976)). Strictly speaking, there was no infringement "abroad" in *Deepsouth*, since it is unquestionable that section 271(a) cannot apply to conduct that is entirely outside the United States. See Rotec Indus., Inc. v. Mitsubishi Corp., 215 F.3d 1246, 1251 (Fed. Cir. 2000). Had the Federal Circuit phrased its statement more precisely, i.e. "The case before us can be distinguished from Deepsouth in that the location of the accused conduct is within United States territory, not abroad as in *Deepsouth*," its argument would have been less convincing. The precise question in *Deepsouth* was whether conduct in the United States, namely the preparing for export of unassembled components of a patented assembly, constituted infringement. *Deepsouth*, 406 U.S. at 524. Similarly, the question in *Research in Motion* was whether RIM's conduct in the United States could constitute direct infringement despite the fact that part of the accused system lay outside the borders of the United States. Research in Motion, 392 F.3d at 1368. The Federal Circuit's statement appears simply to say "Because we find here that RIM infringes (within the United States), this case can be distinguished from *Deepsouth*, in which the Supreme Court found no infringement."

court asserted, finding direct infringement here would not "present the possibility of giving United States patent protection extraterritorial effects." Therefore, since the court found that "it is beyond dispute that the location of the beneficial use and function of the whole operable [BlackBerry] system assembly is the United States," RIM directly infringed, under the terms of section 271(a), by "using" the accused system in the United States. <sup>29</sup>

## II. ORIGINS OF THE "CONTROL AND BENEFICIAL USE" RULE

The Federal Circuit relied on a scant body of precedent in addressing the extraterritoriality question. The Court of Claims (a predecessor to the Court of Appeals for the Federal Circuit) addressed the question only once, in *Decca Ltd. v. United States*, <sup>30</sup> almost 30 years ago. <sup>31</sup> *Decca*, in turn, relied chiefly on a case decided by the Patent Office Board of Interferences, *Rosen v. National Aeronautics and Space Administration*. <sup>32</sup> The question in *Rosen* was when, if ever, a satellite-based invention had been reduced to practice within the United States. <sup>33</sup> The patent applicant, Hughes Aircraft, had invented a control system for satellites; every element but one, the "control point," was located on board the satellite. <sup>34</sup> After deciding that on-ground testing was insufficient to establish an actual reduction to practice, the board focused on whether use of the invention

<sup>&</sup>lt;sup>27</sup> Research in Motion, 392 F.3d at 1369 (quoting and distinguishing Waymark Corp. v. Porta Sys. Corp., 245 F.3d 1364 (Fed. Cir. 2001)).

<sup>&</sup>lt;sup>28</sup> Research in Motion, 392 F.3d at 1369.

<sup>&</sup>lt;sup>29</sup> *Id.* at 1370.

<sup>30 544</sup> F.2d 1070 (Ct. Cl. 1976).

<sup>&</sup>lt;sup>31</sup> Research in Motion, 392 F.3d at 1369. At least one district court has recently faced a similar question. See generally Freedom Wireless, Inc. v. Boston Comms. Group, Inc., 198 F. Supp. 2d 11 (D. Mass. 2002) (holding that the defendant's telecommunications system, which included one element in the United States and the rest in Canada, did *not* infringe the plaintiff's United States patent).

<sup>&</sup>lt;sup>32</sup> *Decca*, 544 F.2d at 1074 (citing Rosen v. Nat'l Aeronautics and Space Admin., 152 USPQ 757 (1966)).

<sup>&</sup>lt;sup>33</sup> Rosen, 152 USPQ at 760. The situation in Rosen arose under the National Aeronautics and Space Act of 1958, 42 U.S.C. § 2457, which provided that inventions made in the performance of a NASA contract be assigned to the United States government. Rosen, 152 USPQ at 759. Since the subject matter of the disputed patent application had been conceived before the commencement of the contract, the parties disputed the applicability of this statute. *Id.* at 760. Because the language of National Aeronautics and Space Act of 1958 expressly excluded a constructive reduction to practice (i.e. the filing of an enabling patent application), the critical question was the date of actual reduction to practice. *Id.* 

<sup>&</sup>lt;sup>34</sup>Rosen, 152 USPQ at 759.

while the satellite was in orbit constituted reduction to practice *within* the United States.<sup>35</sup> Noting that the invention by its very nature could not fit within the territory of the United States, the board determined that since the control point, the only terrestrial element of the patent claims, was located in the United States, reduction to practice was achieved "within" the United States.<sup>36</sup>

Ten years later, *Decca* presented a similar problem, this time in an infringement suit pressed against the United States government. Decca had invented a navigation system including a receiver that processed signals transmitted from three geographically diverse sources.<sup>37</sup> The United States built a system identical to the claimed invention, constructing one of the three transmitters in Norway.<sup>38</sup> Following the logic of *Rosen*, the Court of Claims emphasized that the invention was inherently incapable of fitting within the territory of the United States.<sup>39</sup> The court also noted that the "focus" of the invention, the inventor's "true contribution" to the art, comprised the processing of the signals at the receiver and the synchronization of the tower transmissions, both of which took place in the United States.<sup>40</sup>

¶10 Acknowledging that the question was "not without doubt," the court ultimately held that the navigation system, an "integrated instrumentality," was "used" within the United States, adopting the trial judge's statement that

[t]his conclusion does not rest on any one factor but on the combination of circumstances here present, with particular emphasis on the ownership of equipment by the United States, the control of the

<sup>36</sup> *Id.* at 768. The board expressed its conclusion in tentative, but open-ended language, stating "[W]e are inclined to view the operation of the integrated instrumentality including parts of the satellite and its control point, the latter being in the United States, as not removed from the United States by reason of the satellite being necessarily distant from the several states of the United States." *Id.* The board then clarified the importance of the "necessarily distant" phrase, adding "[W]e believe our Appellate Court would favorably consider a submission that where an inventive act involved an invention *of such magnitude that it necessarily extended beyond the several states*, the inventive act would be considered as occurring in the United States." *Id.* (emphasis added).

<sup>37</sup> *Decca*, 544 F.2d at 1075.

<sup>&</sup>lt;sup>35</sup> *Id.* at 766.

<sup>&</sup>lt;sup>38</sup> *Id.* at 1077. The other two transmitters were located in Hawaii and North Dakota. *Id.* 

<sup>&</sup>lt;sup>39</sup> *Id.* at 1074.

<sup>&</sup>lt;sup>40</sup> *Id.* at 1083.

equipment from the United States, and on the actual beneficial use of the system within the United States.<sup>41</sup>

### III. MISAPPLYING A MISBEGOTTEN RULE

- The Decca court's comment that "the matter is not free from doubt"<sup>42</sup> contrasts starkly with the Federal Circuit's assertion in Research in Motion that "it is beyond dispute that the location of the beneficial use and function of the whole operable system assembly is in the United States."43 In addition to ignoring its predecessor's expressions of doubt, the Federal Circuit also failed to acknowledge the *Decca* court's cautionary statement that its conclusion rested on the entirety of the circumstances.
- These "circumstances" included: (1) that the invention was ¶12 incapable of fitting within the territorial boundaries of the United States;<sup>44</sup> (2) that the U.S. government was both the defendant and the operator of the system; <sup>45</sup> and (3) that the claims clearly focused on the signal processing and control elements of the system, both of which were located in the United States. 46 Similar circumstances were also found in Rosen: the invention was of "such magnitude that it necessarily extended beyond the several states,"<sup>47</sup> and the patent applicant's opponent in the proceeding (and the actual operator of the patented system) was a U.S. government agency. 48
- In Research in Motion, even accepting that the control and "beneficial use" of the accused BlackBerry system occurred in the United States, none of these other factors were present. First, the system was certainly capable of fitting entirely within the United States - the extraterritorial element was simply a server node located at RIM's headquarters in Canada.<sup>49</sup> Second, the claims at issue each included a

<sup>&</sup>lt;sup>41</sup> *Id*.

<sup>43</sup> NTP, Inc. v. Research in Motion, Ltd., 392 F.3d 1336, 1369 (Fed. Cir. 2004).

<sup>&</sup>lt;sup>44</sup> See Decca, 544 F.2d at 1082 ("By its very nature, the system has to have transmitters located outside of the territorial boundaries of this country. . ."). <sup>45</sup> See id. at 1083 ("This conclusion does not rest on any one fact but on the combination of circumstances here present, with particular emphasis on the ownership of the equipment by the United States. . . ").

<sup>&</sup>lt;sup>46</sup> See id. at 1083 ("[T]he patentee's contribution . . . was in a system in which signals having a particular relationship were received from spaced sources and utilized in the receiver. . ."). The claim at issue was formulated in what is now a rather archaic construction; today a patent drafter would likely formulate separate apparatus claims for the receiver and control apparatus, thus possibly avoiding the territoriality question entirely.

<sup>&</sup>lt;sup>47</sup> Rosen v. Nat'l Aeronautics and Space Admin., 152 USPO 757, 768 (1966).

<sup>&</sup>lt;sup>49</sup> NTP. Inc. v. Research in Motion, Ltd., 392 F.3d 1336, 1342 (Fed. Cir. 2004).

number of complicated nodes in a wireless e-mail system; hence, there was no "focus" on elements residing only in the United States.<sup>50</sup> The extraterritorial BlackBerry Relay, the "interface switch" in the claim terminology, provided several intermediate functions within the claimed apparatus; it was not merely a passive endpoint like the transmitter tower in *Decca*.<sup>51</sup> Finally, the U.S. government was obviously not the defendant. Here, to the contrary, a potential collision with another nation's sovereignty interests clearly existed.<sup>52</sup>

Research in Motion, 392 F.3d at 1350-51.

<sup>&</sup>lt;sup>50</sup> See id. at 1367 ("[T]he 'patented invention' is not one single device, but rather a system comprising multiple distinct components or a method with multiple distinct steps. . ."). Typical is claim 1 of United States Patent No. 5,436,960 (issued Jul. 25, 1995), on which claim 15, in suit, depended:

<sup>1.</sup> A system for transmitting originated information from one of a plurality of originating processors in an electronic mail system to at least one of a plurality of destination processors in the electronic mail system comprising: at least one gateway switch in the electronic mail system, one of the at least one gateway switch receiving the originated information and storing the originated information prior to transmission of the originated information to the at least one of the plurality of destination processors; a RF information transmission network for transmitting the originated information to at least one RF receiver which transfers the originated information to the at least one of the plurality of destination processors; at least one interface switch, one of the at least one interface switch connecting at least one of the at least one gateway switch to the RF information transmission network and transmitting the originated information received from the gateway switch to the RF information transmission network; and wherein the originated information is transmitted to the one interface switch by the one gateway switch in response to an address of the one interface switch added to the originated information at the one of the plurality of originating processors or by the electronic mail system and the originated information is transmitted from the one interface switch to the RF information transmission network with an address of the at least one of the plurality of destination processors to receive the originated information added at the originating processor, or by either the electronic mail system or the one interface switch; and the electronic mail system transmits other originated information from one of the plurality of originating processors in the electronic mail system to at least one of the plurality of destination processors in the electronic mail system through a wireline without transmission using the RF information transmission network.

<sup>&</sup>lt;sup>51</sup> See supra note 50; supra note 46.

<sup>&</sup>lt;sup>52</sup> The Canadian government, in an unusual action, filed a brief with the Federal Circuit in January 2005, requesting an *en banc* rehearing of the *Research in Motion* case. Michael Geist, *Why Ottawa should stand on guard in RIM case*,

Even if the rule of law articulated by the court was sound, the ¶14 Federal Circuit's application of that rule to the facts was brief and conclusory. Without addressing the important circumstances discussed in Decca and Rosen, the court dispensed with the issue of "control" by simply stating that RIM's system was controlled in the United States, providing no supporting explanation.<sup>53</sup> Decca had emphasized that operational control of the extraterritorial element (the Norwegian transmitter) occurred entirely from the United States, including monitoring and synchronization of the transmitted signals "used" by receivers in the United States. 54 But in Research in Motion, the Federal Circuit said nothing about how RIM, a Canadian company, controlled the BlackBerry Relay, located in Canada, from the United States. Likewise, the beneficial use attributed to RIM was left unelaborated. The court simply announced that "the location of RIM's customers and their purchase of the BlackBerry devices establish[es] control and beneficial use of the BlackBerry system within the United States."55

¶15 In reaching its holding, the Federal Circuit relied on the phrase "control and beneficial use" as if it embodied a long-standing doctrinal principle. But in doing so, it failed to appreciate the unique circumstances from which it arose. The Board of Interferences in *Rosen* had indeed emphasized the term "control point." But rather than enunciating a legal principle, the board was instead simply reciting a key element of the patent claim! This "control point" was in fact the only element of the claim present in the United States, so manning the control point was the only possible way to "use" (and thus reduce to practice) the claimed invention within the United States.

Tor. Star, Jan. 25, 2005, at D2. Its brief asserted that the Federal Circuit's decision "negatively impacts the 'integrity of the operation of Canadian intellectual property laws." *Id.* Consider the *Decca* court's comment on this issue: "Any foreign country that consents to the entry of any element of the Omega system into its territory impliedly consents also, it would seem, to abstain from any application of its own patent law that would interfere with the intended use." Decca Ltd. v. United States, 544 F.2d 1070, 1074 (Ct. Cl. 1976). This assertion makes sense in the context of a nation granting the United States permission to construct a radio transmitter; it is less plausible in the context of private parties constructing nodes on the Internet.

<sup>&</sup>lt;sup>53</sup> *Research in Motion*, 392 F.3d at 1370.

<sup>&</sup>lt;sup>54</sup> *Decca*, 544 F.2d at 553.

<sup>&</sup>lt;sup>55</sup> Research in Motion, 392 F.3d at 1370.

<sup>&</sup>lt;sup>56</sup> See supra, note 36 and accompanying text.

<sup>&</sup>lt;sup>57</sup> Rosen v. Nat'l Aeronautics and Space Admin., 152 USPQ 757, 759 (1966). There were actually two claims pending in the disputed patent application; claim 21 included a "control point," while claim 27 referred to a "control means." *Id.* <sup>58</sup> *Id.* 

Decca echoed the Rosen board's emphasis on control, but for a ¶16 somewhat different reason. In Decca, the trial judge had provided a comprehensive analysis of the territorial issues and concluded, based on the "combination of circumstances," that the government's system infringed.<sup>59</sup> One of the key circumstances, as noted above, was that the focus of the invention was the manner in which the navigation receivers processed the signals received from the relatively passive transmitters.<sup>60</sup> Thus, the trial judge concluded, the question of "use" was easier to resolve than whether the system was "made" in the United States. 61 Since, the navigation receivers were installed and operated on government aircraft and ships, the judge found that this use was "within" the United States, 62 implicitly relying on the so-called "floating islands" theory of territorial jurisdiction. 63 However, the Court of Claims, while adopting the trial judge's conclusions, expressed concern with the trial judge's implicit conclusion that the navigation receivers installed on government aircraft and ships were unquestionably in U.S. territory. 64 The court raised the issue, but avoided addressing it directly, stating:

[A] decision founded on the fiction that for purposes of the Patent Laws, United States ships and planes wherever found, are United States territory, would be founded on water. We think, however, that the question can be left open, and still we find enough other basis for concluding that the location of the infringement is within United States territory, not abroad as in Deepsouth.<sup>65</sup>

¶17 Having deemphasized the trial court's conclusion that the "beneficial use" of the system occurred in U.S. territory whenever navigators, aboard United States vessels, utilized the receivers, <sup>66</sup> the Court of Claims felt it necessary to emphasize the only portion of the system

 $^{61}$  See id. at 1082 ("Analyzed from the standpoint of a use instead of a making . . . a somewhat clearer picture emerges.").

<sup>&</sup>lt;sup>59</sup> *Decca*, 544 F.2d at 1083.

 $<sup>^{60}</sup>$  Id

<sup>&</sup>lt;sup>62</sup> *Id.* at 1081

<sup>&</sup>lt;sup>63</sup> Burk, *supra* note 2, at 37-38. Burk provides a brief discussion of the rise and fall of the "floating islands" theory of jurisdiction in patent law. *Id*.

<sup>&</sup>lt;sup>64</sup> *Decca*, 544 F.2d at 1072. The court noted a line of contradictory and confusing cases dealing with whether ship-borne devices could infringe a United States patent, dating back to *Brown v. Duchesne*, 60 U.S. 183 (1857). *Decca*, 544 F.2d at 1073.

<sup>65</sup> Decca, 544 F.2d at 1074.

<sup>&</sup>lt;sup>66</sup> This part of the trial court's analysis appears to be the origin of the "beneficial use" term: "[T]he beneficial use of the completed assembly actually occurs within the jurisdiction of the United States, when either a vessel or an airplane equipped with an Omega receiver and owned by the [United States government] receives and utilizes the signals in the manner claimed." *Id.* at 1081.

actually within the United States, the "master" station, which was located in Washington, D.C. The court noted that the system was synchronized and monitored through this master station, and analogized the master station to the control point in *Rosen*. Ultimately, the court seemed to believe, the system had to reside *somewhere*, so since it had "planted several of its feet" in the United States, <sup>68</sup> the court concluded that "the location of the whole for purposes of the United States Patent Law is where the 'master' station or stations are." From this confusing analysis and somewhat forced conclusion emerged the "control point" test applied three decades later in *Research in Motion*.

## IV. IMPLICATIONS OF THE "CONTROL AND BENEFICIAL USE" RULE

¶18 In applying the dubiously derived control and beneficial use rule to the facts in *Research in Motion*, the Federal Circuit created two problems. First, the court's failure to provide an adequate explanation is likely to cause far more confusion than would otherwise have arisen. Second, the Federal Circuit has seriously, and unjustifiably, undermined the *Deepsouth* doctrine.

# A. Confusion

Research in Motion left a number of important questions unresolved, which will likely lead to much uncertainty among the lower courts. For example, what makes a particular use beneficial? Precedent provides no clue, and the court supplied no answer. Recasting the "use" proscribed by section 271(a) as "beneficial use" appears to be of little help in determining the elements or limitations of the "use within the United States" required by section 271(a).

Moreover, what constitutes control? In the Internet age, it is easy to imagine a system having elements distributed across the globe, with no discernable control point. Similarly, as wireless systems begin to complement and merge with the Internet, innovative new systems are likely to be deployed with little regard for territorial borders. One can imagine a system deployed in such a manner that its control is indisputably outside the United States, while the beneficial use occurs inside. So, are both control

68 *Id.* at 1075.

<sup>&</sup>lt;sup>67</sup> *Id.* at 1074.

<sup>&</sup>lt;sup>69</sup> *Id.* at 1074.

<sup>&</sup>lt;sup>70</sup> Dan L. Burk, *Communications Symposium: Transborder Intellectual Property Issues on the Electronic Frontier*, 6 STAN. L. & POL'Y REV. 9, 11 (1994).

<sup>&</sup>lt;sup>71</sup> See Freedom Wireless, Inc. v. Boston Communications Group, Inc., 198 F. Supp. 2d 11 (D. Mass. 2002). The accused system in *Freedom Wireless* enabled pre-paid wireless services for Canadian consumers, but included one system node located in the United States. *Id.* at 13-14. The court held that the system

and beneficial use inside the United States required to infringe section 271(a)? Research in Motion provides no guidance.

## B. A New Framework for Analyzing Territoriality?

- The second problem is that the Federal Circuit appears to have disregarded the *Deepsouth* doctrine, without providing any justification. Although the precise legal holding of Deepsouth was effectively "overruled" by Congressional action, 72 the doctrinal core of the decision remained clear: because of a traditional hostility to the patent "monopoly," the courts should construe patent law conservatively.<sup>73</sup> recognized that the behavior it refused to enjoin might be undesirable, but it deferred to Congress to explicitly proscribe it. While paying lip service to Deepsouth, the Federal Circuit was too eager to distinguish it, ignoring its underlying principle.
- The Research in Motion court's willingness to disregard the Supreme Court's direction in *Deepsouth* may be the result of a (perhaps unwitting) shift in theoretical frameworks. Among the possible frameworks for analyzing the jurisdictional issues in patent law are several suggested during the debate over whether legislation was necessary to protect U.S. patents in space:
  - 1. Territorial Jurisdiction, based on the geographic territory of a state;
  - 2. Nationality Jurisdiction, based on the nationality of persons or entities subjected to state control; ... and
  - [3.] The Passive Personality Principle, based on the ability (some would say the duty) of a state to act with regard to any action by a foreigner outside its territory where

did *not* infringe the plaintiff's United States patent because the system's control point was in Canada and because the system was used by Canadian residents. Id. at 24. The question would have been much more difficult had the same system configuration been employed to serve United States residents.

<sup>2</sup> Burk, *supra* note 2, at 34.

<sup>&</sup>lt;sup>73</sup> See Deepsouth Packing Co. v. Laitram Corp., 406 U.S. 518, 530 (1972) ("[W]e must consider petitioner's claim in light of this Nation's historical antipathy to monopoly . . . "); id. at 531 ("To that end the prerequisites to obtaining a patent are strictly observed, and when the patent has issued the limitations on its exercise are equally strictly enforced.") (quoting Sears Roebuck & Co. v. Stiffel Co., 376 U.S. 225, 230 (1964)). See also Decca, 544 F.2d at 1073 (noting "the canon of hostile interpretation mentioned in the Deepsouth case").

that action would substantially affect the person or property of a citizen.<sup>74</sup>

¶23 The choice between the first two of these principles, territorial jurisdiction and nationality jurisdiction, was precisely the concern of the Court of Claims in *Decca*. The trial judge had emphasized the territorial aspects of the government's installation and use of the navigation system, including its use on government ships. 75 He also emphasized that the system was used and made by the U.S. government,  $\hat{b}$  thus implicitly invoking a theory of jurisdiction based on the nationality of the users. In modifying the trial judge's opinion, the Court of Claims deemed unnecessary the "fiction" that U.S. territory extended to vessels at sea.<sup>77</sup> The court nonetheless relied on a territorial jurisdiction theory, creating the no more plausible fiction that the location of a global system is where its control point resides.<sup>78</sup> In any case, the U.S. government's ownership and operation of the accused system was clearly also a factor, thus bringing into play issues of jurisdiction based on the nationality of the owner and operator.<sup>79</sup>

Rosen is probably best understood as an application of the territorial jurisdiction theory. The bulk of the patented invention was located in orbit, effectively outside the sovereign territory of any nation, but was a United States spacecraft, analogous to the ships and aircraft in *Decca*. To the extent that the satellite is viewed as a floating island of U.S. territory, the territorial theory of jurisdiction would apply. The remainder of the

<sup>&</sup>lt;sup>74</sup> Glenn H. Reynolds, *Space Law Forum: Legislative Comment: The Patents in Space Act*, 3 HARV. J. LAW & TECH. 13, 18 (1990). Reynolds also listed two other possible frameworks, the "Protective Jurisdiction" and "Universal Jurisdiction" frameworks, and suggested that only the territorial and nationality jurisdictional theories were applicable to the issue of extending patent rights into space. *Id.* Reynolds went on to note that the Supreme Court appears to prefer the nationality jurisdiction theory in this setting: "The jurisdiction which [the 'floating island' theory] is intended to describe arises out of the nationality of the ship, as established by her domicile, registry and use of the flag, and partakes more of the characteristics of personal than of territorial sovereignty." *Id.* at 19 (quoting Cunard S.S. Co. v. Mellon, 262 U.S. 100, 123 (1923)).

<sup>&</sup>lt;sup>75</sup> See supra note 64.

<sup>&</sup>lt;sup>76</sup> *Decca*, 544 F.2d at 1081.

<sup>&</sup>lt;sup>77</sup> *Id.* at 1074.

<sup>&</sup>lt;sup>78</sup> See supra note 69 and accompanying text.

<sup>&</sup>lt;sup>79</sup> See supra note 45 and accompanying text.

<sup>&</sup>lt;sup>80</sup> In 1990, Congress amended the law to explicitly bring such spacecraft within the reach of the United States patent code. *See* 35 U.S.C. § 105; S. Rep. No. 101-266, at 6 (1990), *reprinted in* 1990 U.S.C.C.A.N. 4058, 4062. The congressional record cites as justification for the amendment the uncertainty of the applicability of the previous law to orbiting spacecraft given the holdings in

invention (the "control point") was both physically present in the United States and operated by U.S. government personnel.<sup>8</sup>

In contrast, the facts in *Research in Motion* map poorly to either of these theories. The BlackBerry relay, a necessary element for infringement of the claims in suit, was located in Canada, and was neither owned, installed, nor operated by U.S. government personnel or U.S. citizens.<sup>82</sup> While the system, including the BlackBerry relay, was accessed and "used" by U.S. citizens, the Federal Circuit attributed "beneficial use" of the system to RIM, a Canadian entity. 83 As the Federal Circuit put it:

Like the court in Decca, we conclude that the location of RIM's customers and their purchase of the BlackBerry devices establishing control and beneficial use of the BlackBerry system within the United States satisfactorily establish territoriality under section 271(a).<sup>84</sup>

While the court reached the same conclusion (infringement) as the *Decca* court, its reasoning was quite different. Here, the actions of RIM's customers appeared to be essential to establishing jurisdiction. 85 The court never clearly articulated a theory that brings the extraterritorial element of the BlackBerry system under the jurisdiction of the patent code.

In finding direct infringement by RIM, a foreign entity, for acts ¶26 occurring at least partly outside the sovereign territory of the United States, the Federal Circuit appeared to be implicitly working under a theory akin to the Passive Personality Principle mentioned above. The primary concern, albeit unstated, seemed to be protecting the interests of U.S. citizens (or at least holders of U.S. patents) from foreign activities that threatened those interests.

Deepsouth and Decca. S. Rep. No. 101-266, at 3-4 (1990), reprinted in 1990 U.S.C.C.A.N. 4058, 4060-61.

<sup>&</sup>lt;sup>81</sup> A theory of jurisdiction based on the nationality of the operator fits poorly to the situation in *Rosen*, as the board was not determining liability of the operator; rather, the critical question was whether reduction to practice occurred within the United States. See supra note 33 and accompanying text.

<sup>&</sup>lt;sup>82</sup> NTP, Inc. v. Research in Motion, Ltd., 392 F.3d 1336, 1367 (Fed. Cir. 2004). <sup>83</sup> *Id.* at 1370.

<sup>&</sup>lt;sup>84</sup> *Id*.

<sup>&</sup>lt;sup>85</sup> The court's approach raises the possibility of a different theory for liability. Following the court's logic, it seems plausible to find that the users (i.e. consumers) of the BlackBerry system infringe the NTP patents. See id. at 1368 ("[W]e conclude that when two domestic users communicate via their BlackBerry devices, their use of the BlackBerry system occurs 'within the United States'..."). Therefore, RIM might be liable for inducement of infringement, under 35 U.S.C. § 271(b). However, Research in Motion affirmed a finding of direct infringement under 35 U.S.C. § 271(a). 392 F.3d at 1370.

This rationale is certainly not compelled by precedent; as shown above *Decca* and *Rosen* are more readily understood as applications of entirely different principles. Furthermore, *Deepsouth*, the only related precedent that is actually binding on the Federal Circuit, appears to warn directly *against* extending patent rights in such an ambiguous setting. <sup>86</sup> As the Supreme Court said in *Deepsouth*:

We would require a clear and certain signal from Congress before approving the position of a litigant who... argues that the beachhead of privilege is wider, and the area of public use narrower, than courts had previously thought.<sup>87</sup>

P28 Deepsouth's strict interpretation of section 271(a) would appear to preclude resort to any theory other than the theory of territorial jurisdiction in interpreting the term "within the United States." Decca and Rosen generally adhere to this theory, although Decca is arguably influenced by the overwhelming involvement of the U.S. government in the case. If Research in Motion signals that the courts are now more willing to react simply to protect the interests of U.S. patent holders, the beachhead of the patent privilege might become very wide indeed.

### **CONCLUSION**

The language of section 271(a) is uncomplicated: an infringer is one who "without authority makes, uses, offers to sell, or sells any patented invention within the United States." Research in Motion cited no evidence of a clear and certain signal that Congress intended or desired that the phrase "within the United States" cover certain activities taking place outside the United States. The Supreme Court, in the only case remotely on point, has expressly stated "our patent system makes no claim to extraterritorial effect." Yet the Federal Circuit has now concluded that our patent system can reach at least across the Canadian border. Just how far can it go?

\_

<sup>&</sup>lt;sup>86</sup> See Burk, supra note 2, at 54 ("Such cautiousness should be at the forefront of extraterritorial application of U.S. patent law as indicated by the Supreme Court in Deepsouth Packing.").

<sup>&</sup>lt;sup>87</sup> Deepsouth Packing Co. v. Laitram Corp., 406 U.S. 518, 532 (1972). It must be noted that the Supreme Court's decision was by a five-to-four vote. The dissent vigorously decried the majority's "rigid construction" of the patent code. *Id.* at 534 (Blackmun, J., dissenting).

<sup>&</sup>lt;sup>88</sup> But see Reynolds, supra note 74 (endorsing the territorial and nationality jurisdictional theories in the context of patent rights in space).

<sup>&</sup>lt;sup>89</sup> 35 U.S.C. § 271(a) (2000) (emphasis added).

<sup>&</sup>lt;sup>90</sup> Deepsouth, 406 U.S. at 531.

The Federal Court's approach in *Research in Motion* is not altogether surprising. In the same article in which he predicted the dilemma faced by the *Research in Motion* court, Professor Burk noted a "strong commitment by U.S. courts to enforce patent exclusivity against foreign infringers whenever a nexus with U.S. territory exists. <sup>91</sup> But Professor Burk also noted that the "rash, reflexive, or mechanical enforcement of the patent laws could also have unpleasant results." <sup>92</sup>

There is no easy solution to the problem posed by Research in Motion. However, Congress is likely better equipped than the courts to grapple with the extraterritoriality problem, which is fundamentally intertwined with economic and sovereignty questions. 93 The Supreme Court's decision in *Deepsouth* ultimately prompted Congressional action; the law is now explicit with regards to the export of unassembled inventions. The "control and beneficial use" test laid out by Research in *Motion* is beguilingly simple in appearance. But the Internet age is not so simple – the complex and rapidly evolving world of international communications will present complications that defy simple rules. 94 The Federal Circuit missed a chance to send a clear and certain signal to Congress that there are limits to what the judiciary can do in response to the complex realities of the Internet age. Instead, it signaled that everything is fine. In the end, however, we may find this deceptively simple control and beneficial use test, just as the floating islands theory of territoriality before it, to be founded on water.

<sup>&</sup>lt;sup>91</sup> Burk, *supra* note 2, at 34. *See also* Margaret A. Boulware et al, *An Overview of Intellectual Property Rights Abroad*, 16 Hous. J. Int'l L. 441, 490 (1994) ("[A]ctivities in foreign countries can be enjoined [by United States courts] if they have sufficient nexus to infringing activity in the United States.").

<sup>&</sup>lt;sup>92</sup> Burk, *supra* note 2, at 48.

<sup>&</sup>lt;sup>93</sup> See id. at 49.

<sup>&</sup>lt;sup>94</sup> See Yahoo! Inc. v. La Ligue Contre Le Racisme Et L'Antisemitisme, 379 F.3d 1120 (9th Cir. 2004), *vacated, rehearing en banc granted*, 399 F.3d 1010 (9th Cir. 2005), for an example of another dimension of jurisdictional issues caused by the Internet. In *Yahoo!*, the U.S.-based service provider asked a United States federal court for relief from a court order issued by a French court that required the provider to block access by French citizens to certain items on the Yahoo! Auction site. Brendon Fowler, Cara Franklin & Bob Hyde, *Can You Yahoo!? The Internet's Digital Fences*, 2001 DUKE L. & TECH. REV. 12 ¶ 1-3 (2001), *available at* 

http://www.law.duke.edu/journals/dltr/articles/2001dltr0012.html (last visited May 13, 2005). The United States Court of Appeals for the Ninth Circuit, finding no jurisdiction over the French defendants, reversed the district court's grant of summary judgment, *Yahoo!*, 379 F.3d at 1121, but later granted a rehearing, which at the time of this writing has not been heard, *Yahoo!*, 399 F.3d at 1010.