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## A Technological Dream Turned Legal Nightmare

Brandon E. Ehrhart

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# NOTES

## **A Technological Dream Turned Legal Nightmare: Potential Liability of the United States Under the Federal Tort Claims Act for Operating the Global Positioning System**

### ABSTRACT

*The U.S. Global Positioning System (GPS) provides precise positioning information to anyone in the world, regardless of nationality, as long as they have access to an inexpensive receiver. However, in managing and providing the GPS for no charge, the United States may have opened itself to worldwide tort exposure. This Note analyzes U.S. liability for negligently operating the GPS under the Federal Tort Claims Act (FTCA) in four categories.*

*First, this Note examines the transformation of the GPS from its domestic military beginnings to its current role as the foremost radionavigation technique in history and as a vital tool to civilians across the world. Relying on historical data and the GPS's rapid expansion, this Note establishes how negligent GPS operation by the United States could harm a non-American outside of the United States.*

*Second, this Note addresses the applicability of the FTCA's foreign country exception to a lawsuit arising from negligent GPS operation. This second section argues that the foreign country exception should probably not prevent the lawsuit from progressing.*

*Third, this Note surveys and analyzes U.S. Supreme Court and U.S. Courts of Appeals caselaw to determine the applicability of the FTCA's discretionary function exception to this lawsuit. It then reveals the crucial issues relevant to a GPS lawsuit under the FTCA's discretionary function exception.*

*This Note concludes by stating that Congress should exempt the GPS from FTCA liability because of the devastating effect unparalleled global liability would have on the planet's preeminent navigational device.*

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## I. INTRODUCTION

Pick up the phone and dial 1-703-313-5907.<sup>1</sup> After two rings, a recorded message curtly announces the availability of items listed by an alphanumeric sequence.<sup>2</sup> The voice then gives the expected downtime of these objects calibrated to ZULU time.<sup>3</sup> This constantly updated message concludes with additional information relevant to these items.<sup>4</sup>

This recording does not relay information concerning an alien landing, the expected impact of an asteroid with earth, or a secret military code but instead provides information essential to more than a million people across the globe.<sup>5</sup> This mysterious message updates the status of the Global Positioning System (GPS).<sup>6</sup> The

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1. See TOM LOGSDON, UNDERSTANDING THE NAVSTAR: GPS, GIS, IVHS 278 (2d ed. 1995). This telephone number is the Civil Global Positioning System Information Service Center's (CGPSISC) 24-hour recorded hotline located in the United States of America. See *id.* The Service Center is manned 24 hours a day, 365 days a year by U.S. Coast Guard personnel to answer specific inquiries by telephone, facsimile, and electronic mail. See *id.* The number functioned as of the publication of this Note. See Recorded Message of Current GPS Status as provided by CGPSISC (accessed Feb. 29, 2000) [hereinafter Recorded Message].

2. See Recorded Message, *supra* note 1. Each alphanumeric sequence begins with PRN. See *id.* PRN is an acronym for PseudoRandom Number code. See LOGSDON, *supra* note 1, at 278. The PRN number indexes the satellites in the Global Positioning System (GPS) constellation. See *id.*; see also *infra* note 88 and accompanying text. PRN classifies the spectrum of signals that emit from each satellite. See *Glossary, GPS World*, (visited Jan. 22, 2000) <<http://www.gpsworld.com/resources/glossary.htm>>. For a listing of every satellite used in the GPS since its inception, indexed by PRN number, see *United States Coast Guard SATINFO*, (visited Jan. 22, 2000) <<http://www.navcen.uscg.mil/gps/geninfo/constell.htm>>.

3. See Recorded Message, *supra* note 1. ZULU time is also known as Greenwich Mean Time. See *GMT: Greenwich Time* (visited Jan. 22, 2000) <<http://www.greenwich2000.com/time>>.

4. See Recorded Message, *supra* note 1.

5. See Departments of Defense and Transportation, Federal Radionavigation Plan 3-3 (1996) [hereinafter Radionavigation Plan]. For an online version of the Federal Radionavigation Plan in PDF or HTML format, see Departments of Defense and Transportation, *1996 Federal Radionavigation Plan* (visited Jan. 22, 2000) <<http://www.navcen.uscg.mil/policy/frp1996/>>.

6. See Recorded Message, *supra* note 1. While the system is generally referred to as Global Positioning System, it is often called the Navstar Global Positioning System because it employs the Air Force's Navstar satellites. See LOGSDON, *supra* note 1, at 137. For one of the most comprehensive and detailed sources of GPS information, see *United States Coast Guard Navigation Center* (visited Jan. 22, 2000) <<http://www.navcen.uscg.mil>>. The site contains general explanatory information regarding GPS and all of its related systems, countless technical documents detailing the past and current status of the GPS, and links to other GPS websites. See *id.* For a comprehensive printed resource, see the monthly magazine GPS WORLD. GPS WORLD provides articles on the latest developments, uses, and products related to the GPS. GPS WORLD also has a website at (visited Jan. 22, 2000) <<http://www.gpsworld.com>>.

GPS is a navigational tool that fixes a position anywhere on earth but with a few more "bells and whistles" than your average compass and map.<sup>7</sup>

Relying on GPS information, pilots land commercial airliners, mariners negotiate the stormy seas of the North Atlantic, architects determine where to build the world's next skyscrapers, motorists navigate through unknown cities, and hikers transverse uncharted terrain.<sup>8</sup> What began as a tool for the U.S. military to provide precise positioning for its targeting systems, such as

7. While all of the technical aspects that enable the GPS to function exceed the scope of this Note, the logic of the system is straightforward. The GPS is a constellation of 24 Navstar satellites orbiting at 10,898 nautical miles above the earth. See LOGSDON, *supra* note 1, at 13-15. Twenty-one of those satellites are operational, while three serve as spares. See *id.* Several satellites focus on every location on the earth at all times. See *id.*

Once activated, a GPS receiver acquires a signal from one of the satellites covering that location at that time. See *id.* To calculate the distance from the satellite to the receiver, the receiver uses the equation: distance = rate \* time. See *id.* Since the speed of light is a known constant and the pulses between the satellite and receiver travel at the speed of light, the rate can always be calculated. See *id.* The GPS receiver provides its location in three dimensions: altitude, longitude, and latitude. See *id.* Consequently, the receiver requires three satellites to calculate its position. See *id.* The receiver knows the exact location of the satellites in space by the ephemeris constants relayed back by each satellite. See *id.* An ephemeris constant is the fixed path of an orbiting space object such as a planet or artificial satellite. See *id.* In other words, once a satellite achieves orbit, it always knows its location as long as ground control updates the satellites with correct ephemeris data. See *id.* However, the time variables in the distance = rate \* time equations between GPS satellite and GPS receiver require the use of a fourth satellite. See *id.*

Satellites carry extremely precise onboard atomic clocks; however, most GPS receivers are inexpensive (some costing only a few hundred dollars) and employ the common, yet less accurate, quartz crystal clocks found in watches. See *id.* Therefore, the receiver's measurement of the time it took to receive a response from the satellite is imprecise. See *id.* A one-billionth of a second error in timing can result in at least one foot of distance error. See *id.* But by using a fourth equation to solve for clock bias, an accurate time measurement can be calculated. See *id.* Now there are four equations with four unknowns. See *id.* By substituting algebraically and solving the four equations, one can calculate the three-dimensional position of the receiver. See *id.* (providing a more detailed discussion of the mathematics involved).

8. For discussions of the various uses of the GPS, see generally GPS TRENDS IN PRECISE TERRESTRIAL, AIRBORNE, AND SPACEBORNE APPLICATIONS (Gerhard Beutler et al. eds., 1996) (listing the state-of-the-art uses for GPS in surveying, geodesy, geodynamics, and navigation as of 1995); MICHAEL KENNEDY, THE GLOBAL POSITIONING SYSTEM AND GIS: AN INTRODUCTION 210-30 (1996); LOGSDON, *supra* note 1; Jonathan M. Epstein, *Global Positioning System (GPS): Defining the Legal Issues of its Expanding Civil Use*, 61 J. AIR L. & COM. 243 (1995) (discussing the multitude of uses for GPS); *Gore Announces Enhancements to Global Positioning System Benefiting Civilian Users Worldwide*, U.S. NEWSWIRE, Mar. 30, 1998, available in 1998 WL 5684298 (discussing worldwide civilian uses of the GPS) [hereinafter *Gore Announces*]; Verne G. Kopytoff, *18 Wheels, G.P.S. and Radar*, N.Y. TIMES, Mar. 4, 1999, at D1, D7 (discussing the advantages and disadvantages of using GPS to track longhaul truckers).

nuclear ballistic missile submarines, has become a global resource that more and more people employ each day.<sup>9</sup> After spending a couple of hundred dollars to buy a receiver, any person, regardless of their nationality, can use the system free of charge, courtesy of the U.S. Government and its taxpayers.<sup>10</sup>

Along with the pride of paying for the world's use of the most precise navigational tool in history, U.S. taxpayers should also recognize that this system has exposed the United States to liability from citizens around the globe.<sup>11</sup> In 1992, the Air Force inaccurately updated the position of one of the satellites in the GPS.<sup>12</sup> The resulting error caused a horizontal position error to GPS receivers that exceeded three hundred meters.<sup>13</sup> Had a Belgium citizen been relying on GPS information to land an airplane at a fogged-in airport in Germany at this time, the airplane may have crashed into the control tower instead of gently landing on the airstrip. Consequently, the descendants of the pilot and the passengers could sue the United States for the negligent operation of the GPS in U.S. federal district court.<sup>14</sup>

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9. See Epstein, *supra* note 8, at 248. Revenue from GPS commercial systems exceeded \$3.9 billion in 1998 and is expected to top \$15 billion by 2003. See *GPS to Top \$15 Billion by 2003*, GPS WORLD, Jan. 1999, at 60. In 1994, revenues for GPS-related products totaled \$109.2 million in Western Europe alone. See *Frost & Sullivan Studies Western European GPS Market*, GPS WORLD SHOWCASE, Aug. 1998, at 58 [hereinafter *Frost & Sullivan*]. A market survey predicted that in 2004 sales of GPS-related products in Western Europe will produce nearly \$1 billion in sales. See *id.* Thus the Western European market for GPS-related products is expected to grow at a 22.8% annual rate. See *id.*

10. See LOGSDON, *supra* note 1, at 285-92 (listing the names and addresses of domestic and foreign makers of GPS receivers in order to obtain current prices); Epstein, *supra* note 8, at 246 (explaining that the United States would provide GPS access to civilians); see also *GPS World Receiver Survey*, GPS WORLD, Jan. 1999, at 36-52 (surveying the prices and specifications of most GPS receivers on the world market); cf. Glen Gibbons, *The GPS Decade*, GPS WORLD, Jan. 1999, at 10 (discussing the evolution of GPS and how a GPS receiver in 1990 weighed more than one pound and cost over \$3,000).

11. See *infra* Part II.

12. See D.H. Alsip et al., *Implementation of the U.S. Coast Guard's Differential GPS Navigation Service 1-2* (June 1993) (paper distributed by the U.S. Coast Guard Navigation Information Service through Fax-on-Demand at (703) 313-5931, Doc. No. 202).

13. See *id.*

14. See generally *Piper Aircraft v. Reyno*, 454 U.S. 235 (1981). Foreign subjects suffering injury outside the United States may still sue an American defendant in U.S. federal court. See *id.* The *Piper* Court eventually removed the case from U.S. federal court to Scotland based on *forum non conveniens* because it did not satisfy the required factors. See *id.* However, the Court clearly stated that if the United States possesses significant interest in the trial, the trial may be held in U.S. federal court. See *id.* at 258-61. Consequently, the author assumes that the hypothetical of a Belgium citizen suing the United States based on the Federal Tort Claims Act provides the United States enough interest in the case to allow a U.S. federal district court to hear it. The United States would have a significant interest in our GPS hypothetical because unlike *Piper*, the United States would be

While the GPS gives the world the capability to perform previously unthinkable tasks, it has also opened the United States to unparalleled liability.<sup>15</sup>

The GPS consists of three components: (1) a receiver on earth that asks satellites in outer space to fix the receiver's location, (2) the satellites that determine the longitude, latitude, and altitude of that location, and (3) a manager that controls the system's integrity.<sup>16</sup> While private companies such as Rockwell Aerospace and Orbital Services manufacture many of the satellites and receivers used in the GPS, respectively, the United States is the GPS's manager.<sup>17</sup> Consequently, negligent GPS management could expose the United States to significant liability from people around the globe.<sup>18</sup>

Persons suffering injury from a GPS miscalculation could recover loss through one of four ways. First, the person could recover through her respective country, which would seek redress against the United States under international law. The United States has liability under the United Nations since the United States signed the 1972 Convention on International Liability for Damage Caused by Space Objects.<sup>19</sup> Second, the citizen could sue under the Foreign Claims Act (FCA).<sup>20</sup> However, recovery under the FCA does not allow a person to recover in a court of law. It only allows the plaintiff to file an administrative claim against a government agency.<sup>21</sup> Therefore, these first two avenues of redress do not allow the wronged to personally pursue the claim.

Nevertheless, the remaining possibilities do allow an injured party to directly pursue the United States in court. As a third option, a plaintiff could sue under the Federal Tort Claims Act (FTCA).<sup>22</sup> Finally, the plaintiff could sue under the Suits in Admiralty Act (SAA).<sup>23</sup> Both of these acts waive sovereign

a party to the litigation. *See id.*; *see also* Interview with Frank Bloch, Civil Procedure Professor, Vanderbilt University, in Nashville, TN (Feb. 18, 1999).

15. *See infra* Parts II & III.

16. *See* LOGSDON, *supra* note 1, at 17-33.

17. *See id.* at 145; Epstein, *supra* note 8, at 281. Rockwell Aerospace has manufactured all 40 of the Block I and II Navstar satellites that have constructed the GPS. *See* LOGSDON, *supra* note 1, at 145. However, General Electric Aerospace won the Defense contract to manufacture the 20 replacement Navstar Block IIR satellites. *See id.*

18. *See infra* Parts II & III.

19. Convention on International Liability for Damage Caused by Space Objects, Mar. 29, 1972, 24 U.S.T. 2389 [hereinafter *Liability Convention*].

20. 10 U.S.C. § 2734 (1994).

21. *See id.*

22. 28 U.S.C. §§ 2671-2680 (1994).

23. 46 U.S.C. § 741 (1994).

immunity for the acts of government employees.<sup>24</sup> Since the SAA is limited to torts committed in navigable waters controlled by the United States,<sup>25</sup> much of the liability exposure of the United States for negligent GPS operation would originate under the FTCA.<sup>26</sup>

While the FTCA waives sovereign immunity, it does not waive U.S. immunity under all circumstances.<sup>27</sup> One of the more significant and litigated exceptions to the FTCA is the discretionary function exception.<sup>28</sup> The exception immunizes the United States for

[a]ny claim based upon an act or omission of an employee of the Government, exercising due care, in the execution of a statute or regulation whether or not such statute or regulation be valid, or based upon the exercise of or performance or the failure to exercise or perform a discretionary function or duty on the part of a federal agency or an employee of the Government, whether or not the discretion involved be abused.<sup>29</sup>

Since the SAA lacks a discretionary function exception, some plaintiffs have filed claims under the SAA when a tort occurs in waters controlled by the United States.<sup>30</sup> Nevertheless, U.S. courts have read a discretionary function exception into the SAA to prevent recovery that would ordinarily be barred had the tort occurred on land instead of on water.<sup>31</sup> Since a negligence suit involving the discretionary function exception of the SAA does not materially differ from the same lawsuit under the FTCA, this Note will hereinafter refer to the FTCA for clarity.<sup>32</sup>

This Note addresses the global liability of the United States for negligent GPS operation under the FTCA with a focus on the

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24. See 28 U.S.C. §§ 2671-2680; 46 U.S.C. § 741.

25. See 46 U.S.C. §§ 741-752 (1994).

26. See *infra* Part II.A. Although water covers a majority of the world's surface, many of the GPS's uses involve activities based on land. See *infra* Part II.A. Even if the alleged GPS negligence occurs on water, most courts have read a FTCA "discretionary function" exception into the SAA. See Kathlynn G. Fadely, *Liability of the United States for Negligent Charting*, 21 TORT & INS. L.J. 171, 183-84 (1985) (recognizing which circuits imply a "discretionary function" exception in the SAA); see also *infra* note 262 and accompanying text. Therefore, whether the resulting injury occurs on land or water does not alter the FTCA's applicability to this Note. See Fadeley, *supra*, at 183-84.

27. See 28 U.S.C. § 2680 (1994) (listing the exceptions to the waiver of U.S. liability).

28. See Donald L. Zillman, *Protecting Discretion: Judicial Interpretation of the Discretionary Function Exception to the Federal Tort Claims Act*, 47 ME. L. REV. 366, 367 (1995) (analyzing over 100 cases involving the "discretionary function" exception of the FTCA); *infra* note 306 and accompanying text.

29. 28 U.S.C. § 2680(a) (1994).

30. See Fadely, *supra* note 26, at 183-84.

31. See *id.*

32. See *id.*



FTCA's discretionary function exception.<sup>33</sup> Part II addresses the expansion of the GPS from a military to a civilian tool and the continued role of the United States in providing GPS information.<sup>34</sup> Part III evaluates the availability of the FTCA to civilians suffering harm outside of the United States.<sup>35</sup> Part IV analyzes the development of the FTCA's discretionary function exception through Supreme Court caselaw and an analysis of U.S. Courts of Appeals caselaw.<sup>36</sup> Part V assesses whether the discretionary function exception will protect the United States from liability for negligent GPS management.<sup>37</sup> Finally, Part VI concludes by recommending a course of action to protect the United States from the unlimited worldwide liability generated by its policy of providing GPS information free of charge.<sup>38</sup>

## II. EXPANSION OF THE GPS'S CIVILIAN USE AND THE CONTINUED ROLE OF THE UNITED STATES IN ITS GLOBAL EVOLUTION

In one of the more dramatic displays of the U.S. military's technological superiority in the 1991 Persian Gulf War, a Standoff Land-Attack Missile (SLAM) blew a hole in the wall of an Iraqi Power Plant.<sup>39</sup> Two minutes later, a second SLAM flew through the hole created by its predecessor.<sup>40</sup> Signals from the then partially complete GPS guided both of these SLAMs to their targets.<sup>41</sup> In the early bombing raids against Germany in World War II, only three percent of British bombs landed within five miles of their intended targets.<sup>42</sup> What began as a vision of using radio signals from satellites as a navigational tool during a 1973 Pentagon meeting has resulted in a weapon that provides the U.S.

33. For a discussion of the liability of private defendants for negligently-made Geographic Information Systems based on GPS data, see generally Jennifer L. Phillips, Comment, *Information Liability: The Possible Chilling Effect of Tort Claims Against Producers of Geographic Information Systems Data*, 26 FLA. ST. U. L. REV. 743 (1999).

34. See *infra* Part II.

35. See *infra* Part III.

36. See *infra* Part IV.

37. See *infra* Part V.

38. See *infra* Part VI.

39. See LOGSDON, *supra* note 1, at 208.

40. See *id.*

41. See *id.* The GPS did not reach Full Operational Capability until July 17, 1995, when all 24 NAVSTAR satellites went online. See *Global Positioning System Fully Operational*, (July 17, 1995) (visited Jan. 22, 2000) <<http://206.65.196.30/gps/geninfo/global.htm>>.

42. See LOGSDON, *supra* note 1, at 208.

military with capabilities few could have imagined in 1940.<sup>43</sup> Furthermore, this system has continued to enhance the capabilities of the American military. The Tomahawk missile gained fame in the Persian Gulf War by matching visual landmarks to an inertial pre-programmed map to surgically destroy military targets amidst civilian structures after flying over 1500 miles.<sup>44</sup> When President Clinton resumed airstrikes against Saddam Hussein in 1998, an updated Tomahawk carrying a GPS receiver improved the Tomahawk's legendary precision.<sup>45</sup> While the U.S. government has extended the GPS's applicability to additional military uses, people from across the globe have begun exploring GPS civilian uses.

#### A. *Extending the GPS to Civilian Use*

In 1983, the Soviet Union shot down Korean Air Lines Flight 007 after the pilot accidentally strayed off course and violated Soviet Union airspace.<sup>46</sup> Shortly thereafter, President Reagan announced that the United States would grant civilians access to GPS information.<sup>47</sup> Today the Department of Defense (DOD) manages GPS for more than one million civilians that use the GPS for a variety of purposes.<sup>48</sup> Included among the many current GPS users are commercial ocean-going vessels that use the positioning information for everything from navigation on the open sea and in harbor to emergency locator beacons.<sup>49</sup> Furthermore, the Federal Aviation Administration (FAA) has begun constructing GPS landing systems that will eventually replace the current Loran-C, Omega, and Instrument Landing Systems (ILS) used by today's commercial airliners.<sup>50</sup>

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43. See Sam Highley, *GPS Use Expanding*, AIR FORCE NEWS SERVICE, (visited Feb. 20, 1999) <<http://www.laafb.af.mil/SMC/CZ/homepage/resource/news/afnews4.htm>> (website no longer available, copy on file with author).

44. See LOGSDON, *supra* note 1, at 219-20.

45. See Andrea Stone, *Strike is 'serious and sustained'*, U.S.A. TODAY, Dec. 17, 1998, at A3. GPS can also enhance the precision of the hand-held weapons used by U.S. light infantry and special forces' operators. See Advertisement for Rockwell Collins Viper System, GPS WORLD, Mar. 1999, at 27. The Viper system employs an optical GPS system that weighs only six and a half pounds. See *id.*

46. See Soviet Attack on Korean Civilian Airliner, 19 WEEKLY COMP. PRES. DOC. 1266 (Sept. 16, 1983).

47. See *id.*

48. See Radionavigation Plan, *supra* note 5, at 3-3.

49. See *id.* at 3-4. For an entertaining account of a true story about a commercial fishing vessel lost at sea in the North Atlantic's worst storm in over 100 years, see generally SEBASTIAN JUNGER, *THE PERFECT STORM* (1997). The *New York Times* best-selling novel discusses current maritime radionavigation techniques including the emergency radio beacon called an EPIRB (Emergency Position Indicator Radio Beacon) that now employs a GPS receiver. See *id.*

50. See Radionavigation Plan, *supra* note 5, at 3-2. A study by the Applied Physics Laboratory (APL) at Johns Hopkins University concluded that GPS could

However, GPS use is not limited to large-scale commercial enterprises such as commercial fishing or aviation. In order to construct the Chunnel,<sup>51</sup> workers began digging from both ends of the English Channel—Dover, England and Calais, France.<sup>52</sup> Workers used GPS receivers to insure that the tunnel was not only straight but that both sides would meet in the middle of the English Channel.<sup>53</sup> People have employed GPS technology, moreover, in enterprises not even associated with navigation. GPS receivers have been used by environmentalists to track population patterns of Montana Elk and Mojave Desert tortoises,<sup>54</sup> miners to dig long-wall coal mines, the Coast Guard to track hazardous icebergs, and explorers to discover famous ships destroyed by icebergs.<sup>55</sup>

Despite the nearly endless list of applications for GPS information, one of the fastest-growing segments of the GPS market is land-based navigation.<sup>56</sup> Car companies have already begun interfacing GPS receivers with onboard maps located on a vehicle's dashboard.<sup>57</sup> Furthermore, the Baltimore Mass Transit Administration is improving its on-time record by equipping its buses with GPS receivers so that the city's central dispatch can

successfully serve as the nation's sole radionavigation technique to land airplanes once the FAA ceases operating its current systems. *See Study Concludes GPS Can Handle Sole-Means*, GPS WORLD, Mar. 1999, at 18. *But see* Dee Ann Divis, *WAAS: Beleaguered, Bolstered*, GPS WORLD, Mar. 1999, at 12-17 (criticizing the APL study and summarizing the difficulties that the FAA has endured and must surpass to successfully implement GPS as the FAA's only radionavigation tool).

51. *See* The Aerospace Corporation, *GPS Uses in Everyday Life*, (visited Jan. 28, 2000), <<http://www.aero.org/publications/GPSPRIMER/EveryDyUse.html>>. The Chunnel is an underground tunnel that travels beneath the English Channel. *See id.*

52. *See id.*

53. *See id.*

54. *See id.*; *see also* William V. Mavros & Dennis D. Dauble, *Redd Recon: Mapping Chinook Spawning Habitat*, GPS WORLD, Jan. 1999, at 28-35 (discussing the use of GPS by the U.S. Army Corps of Engineers to study endangered species of Pacific Northwest salmon).

55. *See* LOGSDON, *supra* note 1, at 221-29. The ship in question is the *H.M.S. Titanic* that was struck by a North Atlantic iceberg in 1912. *See id.*

56. *See id.* A marketing study predicts that in 2004 95% of the Western European market for GPS products will be in the land-based segment of GPS products. *See Frost & Sullivan, supra* note 9, at 58.

57. *See Magellan Names New CEO, Signs Supplier Deal with Hertz*, GPS WORLD, Jan. 1999, at 18-19. In 1999, Orbital Science's Magellan division, a leading manufacturer of GPS receivers, announced a \$50 million joint venture with the Hertz rental car agency to install GPS vehicle-navigation systems in the company's rental cars. *See id.* The venture calls for Hertz to buy 50,000 systems. *See id.* at 19. The joint venture will be a leader in setting worldwide pricing for other vehicle-navigation systems. *See id.* The vehicle navigation system allows a driver to access "voice and visual driving instructions, custom routing, road exclusion to avoid undesirable streets, and off-road navigation with waypoints." *Magellan Launches Auto System*, GPS WORLD, Mar. 1999, at 64.

more effectively reroute its buses.<sup>58</sup> Meanwhile, Iowa, Minnesota, and Wisconsin participated in a test project that used GPS receivers to track the miles driven by cars to calculate fuel taxes.<sup>59</sup> With its ever-expanding popularity, GPS has become a government tool that more civilians around the world depend on for accurate information.

### B. Precision of the GPS

The GPS consists of two systems: Precise Positioning Service (PPS) and Standard Positioning Service (SPS).<sup>60</sup> PPS provides accuracy to 22 meters horizontally and 27.7 meters vertically, but it is only available to users that the DOD approves of, such as the U.S. military.<sup>61</sup> Meanwhile, SPS is a PPS signal that the DOD degrades and then provides to users worldwide free of charge.<sup>62</sup> SPS only provides horizontal accuracy to 100 meters and vertical accuracy to 156 meters.<sup>63</sup>

Even using the degraded SPS signal, GPS users receive considerable advantages over the only other global radionavigation technique currently in use—Omega.<sup>64</sup> The Omega is one hundred times less accurate than GPS with a positioning error of two to four nautical miles.<sup>65</sup> Other radionavigation techniques used by airplanes, such as the ILS and Microwave Landing System (MLS), provide precision similar to that of GPS, but these techniques exist within limited areas such as the immediate vicinity of airports.<sup>66</sup>

In spite of the SPS's superiority over the Omega system, the government has begun augmenting the SPS signal to improve its accuracy even more. Augmentation is the concept of receiving a GPS SPS signal and then recalculating the signal's position by using a known location on earth, for example, a nearby radio

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58. See Radionavigation Plan, *supra* note 5, at 4-12.

59. See *id.*

60. See Radionavigation Plan, *supra* note 5, at A-7.

61. See *id.* The ranges possess a 95% accuracy rate. See *id.*

62. See *id.* The degrading process by which the DOD degrades the PPS signal is called Selective Availability (SA). See LOGSDON, *supra* note 1, at 307. Beginning in 2000, the President will decide annually whether the DOD should continue to use SA. See The White House: Office of Science and Technology Policy and National Security Agency, *U.S. Global Positioning System Policy* (Mar. 29, 1996) <<http://206.65.196.30/gps/geninfo/white.htm>> (visited Jan. 22, 2000) [hereinafter *U.S. GPS Policy*].

63. See Radionavigation Plan, *supra* note 5, at A-7. The ranges possess a 95% accuracy rate. See *id.*

64. See LOGSDON, *supra* note 1, at 36. The Omega uses eight very-low-frequency transmitters that yield 88% coverage of the globe by day and 98% by night. See *id.* The GPS provides global coverage 99.85% of the time. See *id.* at 17; Radionavigation Plan, *supra* note 5, at A-7.

65. See LOGSDON, *supra* note 1, at 47.

66. See *id.* at 48.

beacon.<sup>67</sup> Since many of the radio beacons surround harbors, the U.S. Coast Guard has been able to achieve this upgrade—referred to as differential GPS (dGPS).<sup>68</sup> With dGPS techniques, the Coast Guard has achieved accuracy to ten meters surrounding harbor approach and entrance areas.<sup>69</sup>

Meanwhile, the standard SPS signal is not sufficient for the FAA to use as the primary method of navigation for landing airplanes.<sup>70</sup> Therefore, using augmentation similar to the Coast Guard's dGPS, the FAA has implemented its own strategy to improve GPS accuracy to the point that an airplane could perform a Category III landing relying on GPS information.<sup>71</sup> Given the increasing accuracy of augmented GPS, the DOD and the Department of Transportation (DOT) will terminate or will have begun to phase out all non-GPS navigation devices by the year 2006 leaving GPS as the lone navigational tool used by the United States.<sup>72</sup> To expedite civilian GPS use, Vice President Gore announced on March 30, 1998 that the United States would provide a second civilian GPS channel.<sup>73</sup> The second channel

67. See Gene W. Hall, USCG Differential GPS Navigation Service (Feb. 1996) (paper distributed by the U.S. Coast Guard Navigation Information Service through Fax-on-Demand at (703) 313-5931, Doc. 207).

68. See Radionavigation Plan, *supra* note 5, at 3-9 to 3-10. Differential GPS also consists of using an integrity monitor to assess the health and validity of a satellite and its signal. See Richard B. Langley, *The Integrity of GPS*, GPS WORLD, Mar. 1999 at 60, 63. If the monitor detects an error, the system notifies the GPS user within five seconds of detection. See *id.*

69. See Radionavigation Plan, *supra* note 5, at 3-10.

70. See *id.* at 3-9.

71. See *id.* at 3-11 to 3-14. The two systems employed by the FAA are the Wide Area Augmentation System (WAAS) and the Local Area Augmentation System (LAAS). See *id.* WAAS recalibrates a GPS SPS signal with corrections by local reference stations whose position are known on earth. See *id.* at 3-11. The WAAS information is then relayed to the plane. See *id.* The LAAS comes into play when an airplane is on approach and within the line of sight of a reference station. See *id.* at 3-12. A Category III landing is a landing with extremely low visibility. See LOGSDON, *supra* note 1, at 186. In order to use GPS for category III landings, the FAA requires a horizontal accuracy of 4.1 meters and a vertical accuracy of 0.6 meters. See Langley, *supra* note 68, at 63. Furthermore, the probability of an undetected system error for the LAAS cannot exceed  $5 * 10^{-9}$ . See *id.* LAAS can meet these stringent requirements because LAAS gives airliners "centimeter-level accuracy" along with "required degree of integrity" by using pseudolites—"low-power, ground based transmitters functioning as pseudo-GPS satellites." *Id.*

72. See *id.* at 3-6.

73. See Gore Announces, *supra* note 8, at 1-2. The Vice President also announced \$400 million to modernize the GPS. See Gore Announces Plan for GPS Improvements, GPS WORLD, Mar. 1999, at 18 [hereinafter *GPS Improvements*]. Three hundred million dollars was slated for the DOD to prevent jamming to the GPS and "alleviate DoD concerns about the additional open-signal availability to potential enemies." *Id.* The sooner that the military can insure the system's integrity from enemies, the sooner the United States can eliminate Selective Availability. See *id.*; Langley, *supra* note 68, at 63. The remainder of the funds

enhances the accuracy, robustness, and reliability of GPS by allowing GPS receivers to more accurately correct for signal distortion caused by the sun.<sup>74</sup> Consequently, this new channel gives civilians comparable access but still inferior accuracy compared to that enjoyed by the U.S. military, which has always possessed two GPS channels.<sup>75</sup> Furthermore, the U.S. Interagency GPS Executive Board (IGEB) expects to add a third GPS channel that will be used as a "safety-of-life" service signal in the near future.<sup>76</sup>

### C. *Expansion of the GPS to a Global Navigation Satellite System (GNSS)*

In March 1996, President Clinton provided a "strategic vision for the future management and use of GPS, addressing a broad range of military, civil, commercial, and scientific interests."<sup>77</sup> As part of his plan to create an international radionavigation network, President Clinton directed the Department of State to analyze potential agreements and to coordinate with foreign countries and international organizations in preparation of a Global Navigation Satellite System (GNSS).<sup>78</sup> In specifying this

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will be allocated to the DOT to improve the GPS through augmentation programs. See *GPS Improvements*, *supra* note 73, at 18.

74. See *Gore Announces*, *supra* note 8, at 1-2.

75. See *id.* at 2.

76. See *id.* President Clinton created the IGEB to manage and oversee the GPS in 1996. See *GPS Improvements*, *supra* note 73, at 18; see also *U.S. GPS Policy*, *supra* note 63.

77. *U.S. GPS Policy*, *supra* note 63, at 2.

78. See *id.* The history of the GNSS has been confusing while its future remains even more uncertain. The European Union proposed the first GNSS, known as GNSS-1. See Dee Ann Divis, *Continental Shift: Changing Strategies on GNSS Chess Match*, *GPS WORLD*, Jan. 1999, at 14. The European Union intended GNSS-1 to be a combination of the U.S. GPS and augmentation systems, the European Geostationary Navigation Overlay Service (EGNOS), and Japan's Multifunctional Transport Satellite (MTSAT) and its Satellite-Based Augmentation System (MSAS). See *id.* However, the European Union changed its thinking and has now proposed a second GNSS—GNSS-2. See *id.* Instead of working with the Americans, GNSS-2 is an attempt by the European Union to produce a competing rival to the established GPS of the United States. See *id.* The GNSS-2 would probably utilize the Soviet Union's attempt at a global radionavigation tool—GLONASS—as a starting point. See *id.* Currently, the incomplete GLONASS system only contains twelve functional satellites. See *id.*

While the United States expects its GPS to compete with the EU's GNSS-2, the United States has considered working with the European Union in order to insure that the GPS and GNSS-2 would be compatible. See *id.* at 14-16. The United States changed its policy largely due to a firm commitment of \$550 million by the European Union to the GNSS-2. See *id.* Despite its financial backing, the GNSS-2 is still many years away from completion. See *id.* at 14-17. One of the GNSS-2's largest obstacles is establishing a manager for the system analogous to the U.S. military's role in the GPS. See *id.* Furthermore, the European Union has expressed its desire to make the GNSS-2 profitable. See *id.* This is a daunting task given that the GPS's SPS is operated free of charge and "will remain so for the

broad directive, the Federal Radionavigation Plan noted that the FAA has cooperated with the Russian Federation to study the benefits of combining the GPS with the former Soviet satellite navigation system called GLONASS.<sup>79</sup> By combining the satellites of the two systems, a GNSS could offer advancements in polar coverage, resistance to jamming, and accuracy.<sup>80</sup>

Recognizing the need of the United States to maintain its lead and influence in the development of satellite-based navigation, the U.S. Congress passed the Commercial Space Act of 1998 on October 28, 1998.<sup>81</sup> The Act promotes U.S. GPS standards and the maintenance of the GPS free of user costs.<sup>82</sup> Furthermore, the Act encourages the President to "eliminate any foreign barriers to applications of the Global Positioning System worldwide" and to enter into international agreements with foreign governments that will expand the U.S. role in the space radionavigation market.<sup>83</sup>

#### D. Management by the United States

Regardless of the future shape of the GPS or the GNSS, the United States is expected to play a key role in the control segment of any space radionavigation technique.<sup>84</sup> While the United States has expanded GPS access and civilians have begun to rely on the service more extensively, the DOD still provides GPS information to anyone in the world for no cost.<sup>85</sup> The U.S. involvement with the management of GPS consists of three segments.<sup>86</sup> First, the Operational Control Segment consists of the Master Control Station (MCS) located at Schriever Air Force Base in Colorado Springs, Colorado.<sup>87</sup> Operated twenty-four hours a day, seven

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foreseeable future." *Id.* at 17. Given the political, financial, and technical challenges facing the GNSS-2, its ultimate shape and the role of the United States in it still remain very much in doubt. *See id.* However, the European Commissioners (EC) have pressed the EU Parliament to make a decision on the GNSS-2 before the United States launches its new array of GPS satellites, which will bolster the constellation and thus establish the GPS as the radionavigation standard and relegate the European Union to a role-player. *See European Commission Urges GNSS Support*, GPS WORLD, Mar. 1999, at 18.

79. *See* Radionavigation Plan, *supra* note 5, at 3-24.

80. *See id.*

81. 42 U.S.C.A. § 14701 (1999).

82. *See* 42 U.S.C.A. § 14712(b) (1999).

83. *Id.*

84. *See id.*

85. *See id.*

86. *See Navstar Global Positioning System Joint Program Office* (visited Jan. 22, 2000) <<http://gps.losangeles.af.mil/index.html>> [hereinafter *Navstar Global Positioning System*].

87. *See id.* For a unique inside look at the Master Control Station and a detailed analysis of the GPS, see Chris Shank & John W. Lavrakas, *Inside GPS: The Master Control Station*, GPS WORLD, Sept. 1994, at 46-54. At the time of

days a week by Air Force Space Command, the MCS calculates ephemeris orbital and clock data and uploads this data to each satellite in the GPS constellation.<sup>88</sup> Without this data, the GPS would not work because the satellites would not know their precise position in space.<sup>89</sup> Second, monitor stations located at the MCS, Hawaii, Kwajalein, Diego Garcia, and Ascension serve as listening posts to gather the raw pseudorange data required by the MCS to calculate the ephemeris orbital data relayed to the satellites.<sup>90</sup> Third, Ground Antennas controlled by the MCS—but located at Kwajalein, Diego Garcia, and Ascension—enable the MCS to control the satellites.<sup>91</sup>

#### E. U.S. Exposure to Liability

The source of U.S. liability exposure from civilians will most likely emanate from an error resulting from the operation of the MCS, the Monitor Stations, the Ground Antennas, or a combination thereof. For example, in October 1992, the MCS uploaded an ephemeris orbital error to a satellite that caused a horizontal position error to GPS receivers that exceeded three hundred meters.<sup>92</sup> If an experimental mass transit system called “platooning” or if surveyors building the world’s next skyscraper received an error similar to the one in 1992, the error would cause the cars to crash or the building to be built in the wrong location. Thus, such an error could incur physical or economic loss.<sup>93</sup> The world’s increased dependence on accurate GPS operation, combined with the history of the 1992 error, highlight the possibility of another GPS miscalculation.<sup>94</sup> If such an error

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publication, co-author Shank was a first lieutenant and satellite navigation analyst with the 2nd Space Operations Squadron, which is responsible for the MCS.

88. See *id.* at 48. “Constellation” in the context of the GPS refers to the spatial arrangement of the 24 Navstar satellites that create the GPS and provide worldwide coverage 24 hours a day. See *Navstar Global Positioning System*, *supra* note 86.

89. See discussion *supra* note 7.

90. See *Navstar Global Positioning System*, *supra* note 86. Hawaii and Kwajalein are in the Pacific Ocean. See GPS Primer, *Ground Control Stations and Receivers* (visited Feb. 1, 2000) <<http://www.aero.org/publications/GPSPRIMER/GrndCntrlRecvrs.html>>. Diego Garcia is in the Indian Ocean. See *id.* Ascension Island is in the Atlantic Ocean. See *id.*; Shank & Lavrakas, *supra* note 87, at 48.

91. See *Navstar Global Positioning System*, *supra* note 86. In the event of failure by the Ground Antennas, the pre-launch compatibility station located in Cape Canaveral, Florida can be used as a backup. See *id.*

92. See Alsip, *supra* note 12, at 1-2.

93. See LOGSDON, *supra* note 1, at 270. “Platooning” is a name for a futuristic traffic pattern where GPS-reliant and computer-controlled cars travel at highway speeds with only four feet separating them. See *id.* Consequently, more cars can travel on the same highway given the lack of space between the platooning cars. See *id.*

94. See *supra* note 12 and accompanying text.



occurs again, a plaintiff suffering harm from a GPS error could file a negligence claim under the FTCA in federal court.<sup>95</sup> Since the United States should argue immunization because it has performed a discretionary function, the FTCA caselaw deserves analysis.<sup>96</sup>

### III. APPLICABILITY OF THE FTCA TO TORTS OCCURRING OUTSIDE THE UNITED STATES

Before analyzing the FTCA's discretionary function exception, it is first necessary to define the jurisdictional applicability of the FTCA. The FTCA states that it does not apply to "any claim arising in a foreign country" (foreign country exception).<sup>97</sup> The international applicability of the FTCA in a GPS context would most likely stem from an upload error to a satellite by the MCS in Colorado that causes harm somewhere outside the United States.<sup>98</sup> Since the GPS and its likely successor, the GNSS, are truly global services, it is highly likely that an upload error will affect a non-U.S. citizen using GPS information outside the United States. It appears from the FTCA's language that the United States is immune from suit in U.S. federal court for any GPS-reliant damage occurring outside its borders.

However, courts have focused on where the claim "arises"<sup>99</sup> and not the location of damage to determine the FTCA's applicability. In *United States v. Spelar*, an airplane crashed on approach at U.S.-operated Harmon Field in Newfoundland.<sup>100</sup> The

95. See *infra* Part I.

96. See *infra* Part I.

97. 28 U.S.C. § 2680(k) (1994).

98. See discussion *infra* Parts I & II.E. Obviously, the FTCA would only apply if the plaintiff sued the United States in federal district court. See *id.*

99. In other words, "arises" refers to the place where the allegedly negligent act occurred.

100. 338 U.S. 217, 218-19 (1949). For other cases barring torts on American embassies or military bases located in foreign countries under the FTCA's foreign country exception, see *Eaglin v. United States*, 794 F.2d 981, 983 (5th Cir. 1986); *Broadnax v. United States*, 710 F.2d 865, 867 (D.C. Cir. 1983); *Meredith v. United States*, 330 F.2d 9, 11 (9th Cir. 1964). In *Burma v. United States*, an FTCA foreign country exception case in post-World War II Japan, the Court stated that Okinawa was still a foreign country within the meaning of the FTCA. See 240 F.2d 720, 721 (4th Cir. 1957). Similarly, in *Cobb v. United States*, the Ninth Circuit concluded that Japanese tort law would be applicable to a tort occurring in Okinawa. See 191 F.2d 604, 611 (9th Cir. 1951). The court noted that Okinawa was a foreign country because the U.S. Military government was not free to alter the tort law of Okinawa but instead was bound to maintain the preexisting "foreign law." See *id.* "Since Congress was unwilling to subject the United States to liability based on that sort of law, the action was properly dismissed." *Id.*; see also *Heller v. United States*, 776 F.2d 92, 96 (3d Cir. 1985). In *Heller v. United States*, a United States Air Force serviceman brought suit against United States and others to recover compensatory and punitive damages

estate of a decedent in the crash alleged that the United States negligently operated the field.<sup>101</sup> In order to decide whether the FTCA barred the action, the Supreme Court looked to the legislative history of the FTCA.<sup>102</sup> After examining the legislative record, the Court concluded that Congress passed the FTCA's foreign country exception to guarantee that the United States would not be subject to the "laws of a foreign power."<sup>103</sup> Since the accident and the base where the alleged negligence occurred were in Newfoundland, the Court concluded that the site of the negligence was Newfoundland and not the United States.<sup>104</sup> The foreign country exception, therefore, barred the suit.<sup>105</sup>

In a subsequent case that decided which U.S. state law to apply to a FTCA claim, the Supreme Court further clarified the FTCA's foreign country exception. In *Richards v. United States*,

for the wrongful death of his wife after treatment at a military hospital in the Republic of the Philippines. See *Heller*, 776 F.2d at 96. The court stated that the foreign country exception applies if (1) the tort occurs in a jurisdiction outside of U.S. sovereignty, and (2) the United States is subject to liability based upon the foreign law. See *id.* The court also noted that if the United States exercises jurisdiction over its nationals in foreign countries, foreign sovereignty by definition can still exist. See *id.* The court stated

It is uncontrovertible that nations, even though they are recognized as full members of the international community, must modify their internal affairs as a result of their participation in the international community, often in accord with treaty obligations. Thus it is reasonable that torts occurring on American military bases are barred by the foreign country exception, despite the fact that the enforcement authority on base is American.

*Id.*

101. See *United States v. Spelar*, 338 U.S. 217, 218 (1949).

102. See *id.* at 219. The Court cited the following interchange to prove that the location of the act determines whether the FTCA applies:

Assistant Attorney General Francis M. Shea: Claims arising in a foreign country have been exempted from this bill, H.R. 6463, whether or not the claimant is an alien. Since liability is to be determined by the law of the situs of the wrongful act or omission it is wise to restrict the bill to claims arising in this country. This seems desirable because the law of the particular State is being applied. Otherwise, it will lead I think to a good deal of difficulty.

[Congressman] Mr. Robison [of the House Judiciary Committee]: You mean by that any representative of the United States who committed a tort in England or some other country could not be reached under this?

Mr. Shea: That is right. That would have to come to the Committee on Claims in Congress.

*Id.* at 221 (quoting Hearings H.R. 5373 and H.R. 6463, 77th Cong. 2d Sess., at 29, 35, 66.)

103. *Id.* at 221.

104. See *id.* at 221-22.

105. See *id.* at 222.

an American Airlines' airplane crashed in Missouri en route from Tulsa, Oklahoma to New York City.<sup>106</sup> The plaintiffs, representatives of the decedent passengers, argued that the United States was liable under the FTCA for allowing the airline's negligent overhaul of the plane before it left Tulsa.<sup>107</sup> The Court held that FTCA claims applied the law of the state where the "acts of negligence took place," not where the negligence had its "operative" effect.<sup>108</sup> Thus, the law of the site of the plane's overhaul, Oklahoma, and not the site of its crash, Missouri, controlled the FTCA claim.<sup>109</sup>

Meanwhile, the Courts of Appeals have followed the Supreme Court's lead by defining the FTCA's foreign country exception as the situs of the negligent act and not the locus of the injury. In *In re Paris Air Crash of March 3, 1974*, a Douglas DC-10 airplane operated by Turkish Airlines crashed shortly after takeoff in Paris, France killing all 346 people on board.<sup>110</sup> The plaintiffs alleged that the United States was liable because the FAA failed to certify, inspect, and require that structural changes be made to the airplane.<sup>111</sup> Citing the Supreme Court's interpretation of the state conflict of law issue in *Richards*, the court held that where the tort arises and not the location of injury determines the applicability of the FTCA.<sup>112</sup> Because the allegations for negligent inspection occurred in the state of California in *In re Paris Air Crash*, the court ruled that the suit could proceed under federal and California law.<sup>113</sup>

Similarly, in *Sami v. United States*, an Afghanistan citizen sued the United States for an improper extradition request sent from Florida to the International Criminal Police Organization (Interpol).<sup>114</sup> Because German authorities improperly detained the plaintiff, he sued the United States for false arrest, defamation, and a deprivation of his constitutional rights.<sup>115</sup>

106. 369 U.S. 1, 3 (1962).

107. *See id.* at 3. This violated a regulation of the Civil Aeronautics Act. *See id.*

108. *Id.* at 10.

109. *See id.*

110. *See* 399 F. Supp. 732, 735-36 (C.D. Cal. 1975).

111. *See id.* at 737.

112. *See id.*; *see also Richards*, 369 U.S. at 3-10.

113. *See* 399 F. Supp. at 749; *see also Leaf v. United States*, 588 F.2d 733, 736 (9th Cir. 1978) (precluding summary judgment on Section 2680(k) because allegations of Drug Enforcement Agency impropriety transpired in Arizona and California even though suit arose out of a crash in Mexico); *Manemann v. United States*, 381 F.2d 704, 705 (10th Cir. 1967) (holding that when negligent acts in Taiwan led to injury in the United States, the claim arose in a foreign country for purposes of determining the relevance of § 2680(k)).

114. 617 F.2d 755, 757 (D.C. Cir. 1979).

115. *See id.* Interpol held him for four days. *See id.* at 758.

Citing the legislative history of the FTCA's foreign country provision, the U.S. Court of Appeals for the District of Columbia stated that the "[foreign country exception to the FTCA] does not apply if the wrongful acts or omissions complained of occur in the United States."<sup>116</sup> Because the Broward County Sheriff's office in Florida committed the negligent act that proximately caused the plaintiff's false detention in Germany, the D.C. Circuit overturned the District Court by holding that the plaintiff's suit could proceed under the FTCA.<sup>117</sup>

Furthermore, courts have extended the FTCA to cover alleged negligent government decisions made in the United States but carried out entirely in a foreign country. In *In re "Agent Orange" Product Liability Litigation*, Vietnam veterans and their families sued the chemical companies that manufactured the biological weapon Agent Orange.<sup>118</sup> Consequently, the chemical companies impleaded the United States for its decision to use Agent Orange in the Vietnam War.<sup>119</sup> Noting that Congress intended that the foreign country exception protect the United States from the laws of a foreign power, the court ruled that the decision to use the chemical was made in the United States.<sup>120</sup> Writing for the court, Chief Judge Jack Weinstein stated that "under the FTCA, a tort claim 'arises' at the place where the negligent act or omission occurred and not where the injury occurred."<sup>121</sup> Thus, the plaintiffs could proceed with their suit, and the foreign country exception of the FTCA did not bar the claim.<sup>122</sup>

Given the aforementioned caselaw, it seems clear that the site of the negligent act instead of the location of the resulting

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116. *Id.* at 762.

117. *See id.* at 761-63; *see also* Orlikow v. United States, 682 F. Supp. 77, 85-87 (D.D.C. 1988) (holding that the alleged negligence against the CIA for supervising employees and funding medical malpractice and research experiments on unwitting human subjects in Canada did not "arise in a foreign country" and therefore that the suit was not barred by the FTCA's foreign country exception). *But see* Cominotto v. United States, 802 F.2d 1127, 1130 (9th Cir. 1986). In *Cominotto v. United States*, plaintiff, who had been asked to assist in a Thailand undercover operation, was shot in the course of the operation. *See* 802 F.2d at 1130. He brought suit against the United States under the FTCA. *See id.* The U.S. Court of Appeals for the Ninth Circuit stated that the impact of U.S. Secret Service activities in the United States on the Thailand operation was too attenuated to support a "headquarters" claim under the FTCA. *See id.* "Such claims typically involve allegations of negligent guidance in an office within the United States of employees who cause damage while in a foreign country, or of activities which take place within a foreign country." *Id.* Thus the foreign country exception of the FTCA barred the lawsuit. *Id.*

118. 580 F. Supp. 1242, 1244 (E.D.N.Y. 1984).

119. *See id.*

120. *See id.* at 1254-55.

121. *Id.* at 1254.

122. *See id.* at 1255.

damage determines the foreign country exception's applicability. Consequently, one commentator, Kevin K. Spradling, has argued that a civilian in Norway relying on faulty GPS information caused by a negligent data upload at the MCS in Colorado could sue the United States under the FTCA.<sup>123</sup> The result seems correct given the well-established precedent on the issue, unless a court views the negligent act leading to the damage in Norway as "arising" in outer space instead of in Colorado. Spradling addressed this concern but concluded that since outer space, similar to Antarctica, has no government, the FTCA's exception for claims arising in a foreign country could not apply.<sup>124</sup> Thus, even if a court ruled that the negligent act occurred in government-less outer space, the foreign country exception would not bar a FTCA claim.<sup>125</sup> At the time Spradling's article was published in 1990, this result made sense since the Supreme Court interpreted the words "foreign country" in the FTCA to mean "territory subject to the sovereignty of another nation."<sup>126</sup>

In 1993, the Supreme Court decided *Smith v. United States*, a case in which the spouse of a carpenter, who died by walking into a crevasse in Antarctica, sued the United States for failing to mark the crevasse.<sup>127</sup> Even though Antarctica possesses no recognized government, the Supreme Court held that it is a "foreign country" within the scope of the FTCA.<sup>128</sup> Therefore, the Court dismissed the suit because the claim arose in a foreign country, and the foreign country exception bars suits arising in a foreign country.<sup>129</sup>

*Smith* complicates the issue of the FTCA's applicability to torts arising from negligent GPS operation. The Outer Space Treaty of 1967 establishes that outer space will be operated on "a basis of equality and in accordance with international law."<sup>130</sup> Similar to Antarctica, which is also governed by international law,

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123. See Kevin K. Spradling, *The International Liability Ramifications of the U.S.' NAVSTAR Global Positioning System*, PROCEEDINGS OF THE THIRTY-THIRD COLLOQUIUM ON THE LAW OF OUTER SPACE 93 (1990). At the publication of his paper, Kevin K. Spradling was a Major in the United States Air Force and Director of Space and International Law for the U.S. Air Force Space Command. See *id.*

124. See *id.* at 96.

125. See *id.*

126. *United States v. Spelar*, 338 U.S. 217, 219 (1949); see Spradling, *supra* note 123, at 96.

127. 507 U.S. 197, 199 (1993).

128. *Id.* at 204-05.

129. See *id.* *Smith* overturned *Beattie v. United States*, 756 F.2d 91 (D.C. Cir. 1984).

130. Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, *opened for signature* Jan. 27, 1967, art. I, 18 U.S.T. 2410, 610 U.N.T.S. 205.

outer space could be deemed as falling under the foreign country exception of the FTCA.<sup>131</sup> However, a court must first rule that the alleged negligent act by a U.S. government employee occurred in outer space. While a negligent upload from the MCS in Colorado would pass through a Navstar satellite orbiting in outer space, the actual human negligence would have to occur on earth and within the United States.<sup>132</sup> Therefore, the foreign country exception should not limit the jurisdiction of the FTCA, but it is a concern that would be raised in a claim against the United States for negligent GPS management. Nevertheless, the foreign country exception is not the only barrier that the FTCA would pose to a suit against the United States for negligently operating the GPS.

#### IV. INTERPRETATION OF THE FTCA'S DISCRETIONARY FUNCTION EXCEPTION

In order to find liability under the FTCA, a plaintiff must also prove that the FTCA's discretionary function exception does not apply.<sup>133</sup> This section will determine how courts interpret Congress' language that the FTCA does not apply to acts "based upon the exercise or performance or the failure to exercise or perform a discretionary function or duty on the part of a federal agency or an employee of the Government, whether or not the discretion involved be abused."<sup>134</sup> While this Note previously illustrated how the foreign country exception can limit the exposure of the United States to suits, it is the above-mentioned discretionary function that is the most often litigated and about the most common bar to FTCA suits against the United States.<sup>135</sup> Consequently, an informed discussion of the exception's applicability to a suit for GPS operation requires a thorough, albeit lengthy, analysis of the exception's evolution through relevant caselaw. Thus, this section of the Note will address both Supreme Court and U.S. Courts of Appeals law interpreting the discretionary function exception.<sup>136</sup> However, it does not perform a comprehensive survey of all discretionary function caselaw, but instead only analyzes cases that would be pertinent in light of a lawsuit against the United States for negligently operating the GPS.<sup>137</sup>

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131. See Antarctic Treaty, Dec. 1, 1959, 12 U.S.T. 794, 402 U.N.T.S. 71.

132. See *supra* Part II.E.; see *infra* notes 324-27 and accompanying text.

133. See *supra* notes 27-29 and accompanying text.

134. 28 U.S.C. § 2680(a) (1994).

135. See *supra* note 28 and accompanying text; *infra* Part IV.B.5 and note 306 and accompanying text.

136. See *infra* Part IV.

137. See *infra* Part IV; *supra* notes 12-15; *infra* note 221.

## A. U.S. Supreme Court Caselaw

In its first opportunity to tackle the discretionary function exception of the FTCA, the Supreme Court created the "government nature or function" test. In *Dalehite v. United States*, approximately 300 separate plaintiffs consolidated against the United States under the FTCA for negligence.<sup>138</sup> The claims arose from an explosion in Texas Harbor caused by Fertilizer Grade Ammonium Nitrate (FGAN).<sup>139</sup> One cargo ship carried FGAN and a cargo of explosives; meanwhile, another ship carried FGAN and two thousand pounds of sulfur.<sup>140</sup> After the ship with the explosives caught fire, both ships, located in Texas Harbor, exploded killing many people and leveling most of the city.<sup>141</sup> The plaintiffs sued the United States for negligent storage and transportation of FGAN under the FTCA.<sup>142</sup>

The lower court recognized that Congress' intent in the FTCA was to waive government immunity for its employees' tortious conduct.<sup>143</sup> However, the Supreme Court noted that Congress did not "[contemplate] that the Government should be subject to liability arising from acts of a governmental nature or function."<sup>144</sup> The Court relied on the fact that Congress intended to protect the government from acts affecting "governmental functions."<sup>145</sup> The FTCA intended to allow liability for tortious acts, such as car-wrecks, committed by government employees but not those acts undertaken with discretion.<sup>146</sup> Consequently, the discretionary function exception was to cover those acts with "room for policy judgment and decision."<sup>147</sup> Furthermore, the Court did not differentiate between decisions made by subordinates and those made by executive-level administrators.<sup>148</sup>

138. 346 U.S. 15, 17 (1953).

139. *See id.* at 18. FGAN's primary ingredient is ammonium nitrate, a compound with a high free nitrogen content and popular part of many explosives. *See id.* at 21. The government's interest in FGAN began with the Tennessee Valley Authority's (TVA) statutory-imposed requirement to manufacture fertilizer. *See id.* at 18. Following World War II, the United States agreed to assist in the feeding of the Axis powers. *See id.* at 19-20. After storing 1850 tons of FGAN in Texas City, the United States loaded the chemical in two cargo ships docked in Texas Harbor. *See id.* at 22. Therefore, the FGAN sat on the dock awaiting export to Germany, Japan, and Korea. *See id.* at 17-20.

140. *See id.* at 22-23.

141. *See id.* at 23.

142. *See id.*

143. *See id.*

144. *Id.* at 28.

145. *Id.* at 32.

146. *See id.* at 34.

147. *Id.* at 36.

148. *See id.* at 36.

The Court singled out five discretionary acts in the storage of the FGAN that immunized the government from liability.<sup>149</sup> One act included the executive decision by the United States to produce and transport FGAN.<sup>150</sup> Meanwhile, the government performed four discretionary acts at Texas Harbor.<sup>151</sup> They included the temperature of the stored FGAN, the type of container, the type of labeling, and the decision to employ paraffin coating on the containers.<sup>152</sup> The Court summarized its findings by stating that the decisions leading to the government's alleged liability transpired at the planning level of the fertilizer program instead of at its operational level.<sup>153</sup> Therefore, the Court held that the government's acts, regardless of their alleged negligence, were discretionary acts, and the plaintiffs could not sue the government under the FTCA because the discretionary function exception barred the claims.<sup>154</sup>

The Supreme Court later narrowed its interpretation of the discretionary function from the broad policy-oriented government function test by focusing on the difference between planning and operational levels of government action. In *Indian Towing Co. v. United States*, a tugboat owner sued the United States after a malfunctioning lighthouse supposedly caused the barge that the tugboat was towing to run aground.<sup>155</sup> The plaintiff alleged that faulty maintenance and lack of a warning due to the lighthouse's malfunction caused the barge to run aground.<sup>156</sup> The government claimed immunity because the operation of a lighthouse was a "uniquely governmental function."<sup>157</sup> The Court did not agree with the government's argument, however, because the logical conclusion of accepting this interpretation would undermine the FTCA's purpose by giving the government near blanket immunity.<sup>158</sup> Consequently, the Court stated that these allegations fell into the operational aspect of government

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149. *See id.* at 39-40.

150. *See id.*

151. *See id.*

152. *See id.*

153. *See id.* at 42.

154. *See id.* at 42-43.

155. 350 U.S. 61, 61-62 (1955).

156. *See id.* at 62. The plaintiffs alleged three specific acts of negligence: (1) the failure to check the lighthouse's battery and sun relay system, (2) the failure to insure the connections exposed to the elements were properly aligned, and (3) the failure to repair the light or to issue a proper warning to mariners. *See id.*

157. *Id.* at 64-65. The government arrived at its argument by asserting that reading § 2674 and § 2680(a) of the FTCA led to protection for of all "uniquely governmental functions." *Id.*

158. *See id.* at 67. "[A]ll Government activity is inescapably 'uniquely governmental' in that it is performed by the Government." *Id.*



activity.<sup>159</sup> While the Coast Guard's decision to provide a lighthouse was a planning decision, its continued maintenance of the lighthouse was an operational decision that did not involve discretionary activity.<sup>160</sup> Thus, the Court held that the tugboat owner could proceed under the FTCA.<sup>161</sup>

Without overruling the planning/operational distinction, the Supreme Court later interpreted the discretionary function exception to protect only those government actions within the "nature and scope" of the FTCA. In *United States v. Varig Airlines*, the Court consolidated two claims against the Federal Aviation Administration (FAA).<sup>162</sup> One claim emanated from a fire that eventually killed 124 people aboard a Varig Airlines' Rio de Janeiro-to-Paris flight.<sup>163</sup> The plaintiffs alleged that the FAA was liable for the fire because it certified the plane as meeting FAA requirements when it did not.<sup>164</sup> The second claim arose from a fire in the luggage compartment of a different airplane when the FAA negligently certified a cabin heater that did not conform to its requirements.<sup>165</sup>

Recognizing the definitional problems inherent in the discretionary function exception, the Court employed two factors to consider and interpret when deciding whether the discretionary function exception applies.<sup>166</sup> First, the Court stated that the "nature of the conduct, rather than the status of actor"

159. See *id.* at 64. The history of the operational distinction originated in *Dalehite v. United States*, 346 U.S. 15, 42 (1953).

160. See *Indian Towing Co. v. United States*, 350 U.S. 61, 69 (1955). The Court also referred to traditional "hornbook law" that states that once one has undertaken the duty of warning the public about a public danger, the task must be performed in a careful manner. See *id.* at 64-65.

161. See *id.* at 69. *Indian Towing* is a confusing case under the discretionary function exception. The government conceded that the discretionary function exception of § 2680(a) of the FTCA did not directly apply. See *id.* at 64. However, the government argued that it was nonetheless protected because § 2674 of the FTCA (imposing liability "in the same manner and to the same extent as a private individual under like circumstances") implicated § 2680(a) and thus immunized the government for unique government functions. See *id.* Nevertheless, the Court held the United States liable under the "Good Samaritan" doctrine of state tort law while stating that the FTCA did not bar the claim. See *id.* at 64-65. Later in *United States v. Gaubert*, the Supreme Court clarified *Indian Towing* by holding that operational level decisions could receive the protection of the discretionary function exception. See *United States v. Gaubert*, 499 U.S. 315, 326 (1991).

162. 467 U.S. 797, 799-803 (1984).

163. See *id.* at 799-800. Federal regulations at the time, 14 C.F.R. § 4b.381(d) (1956), required that "waste receptacles be made of fire-resistant materials and incorporate covers or other provisions for containing possible fires." *Id.* at 801. The fire started from a non-fire retardant trash container in the Boeing 707's lavatory that did not satisfy FAA regulations. See *id.* at 800-01.

164. See *id.* at 801.

165. See *id.* at 802-03.

166. See *United States v. Varig Airlines*, 467 U.S. 797, 813 (1984).

determines the discretionary function exception's applicability.<sup>167</sup> This factor originated from the Court's decision in *Dalehite* that emphasized all employees, not just high-level government employees, fall under the discretionary function exception.<sup>168</sup> Second, the Court held that Congress intended the exception to protect "discretionary acts of the Government acting in its role as a regulator of the conduct of private individuals."<sup>169</sup> The Court reasoned that Congress desired to immunize the government as *regulator* from civil liability since the original version of the FTCA specifically mentioned two regulatory agencies.<sup>170</sup> This desire emanated from Congress' purpose of preventing the judicial second-guessing of a regulatory agency's "political, social, and economic judgments."<sup>171</sup>

Applying its revised discretionary function standard to the two claims, the Court held that the exception protected the United States from liability.<sup>172</sup> In both situations, the FAA enforced its regulations not by uniform inspections of all airplanes but through spot-checks.<sup>173</sup> Noting the existence of fewer than four hundred FAA engineers, the Court concluded that the FAA must make policy decisions that were of a "nature and quality" that the discretionary function exception intended to immunize from liability.<sup>174</sup> Consequently, the FAA's "discretionary" decisions were its policy judgments "regarding the degree of confidence that might reasonably be placed in a given manufacturer, the need to maximize compliance with FAA regulations, and the efficient allocation of agency resources."<sup>175</sup> A court's review of these decisions would in effect be "second-guessing" the FAA.<sup>176</sup> Thus, the plaintiffs could not proceed with their suit under the FTCA.<sup>177</sup>

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167. *Id.*

168. *See id.*

169. *Id.* at 813-14.

170. *See id.* at 814.

171. *Id.* at 820.

172. *See id.* at 821.

173. *See id.* at 815. By employing spot-checks, the FAA has effectively placed the burden of safety on the manufacturers. *See id.* Federal regulations at that time, 14 CFR § 21.17 (1983), 49 U.S.C. §§ 1421(b), 1425(a), placed the burden of meeting FAA requirements on the applicant for certification—the manufacturer (original certification) or the carrier (when a change has been made). *See id.* at 815-17. The relevant procedures for a spot-check at the time of the accident were outlined in the CAA Manual of Procedure § .330. *See id.* at 818.

174. *Id.* at 807, 819.

175. *Id.* at 820.

176. *Id.*

177. *See id.* at 821.

*Varig's* protection of regulatory agencies' decisions created confusion among the U.S. Courts of Appeals.<sup>178</sup> Therefore, in *Berkovitz v. United States*, the Supreme Court extended *Varig* by creating a simpler two-pronged test to determine if the discretionary function exception protects a government decision.<sup>179</sup> *Berkovitz* clarified *Varig* by concluding that the discretionary function exception does not immunize all actions of a regulatory agency but only those acts of a regulatory agency that involve judgment.<sup>180</sup> Hence, the first prong of the analysis requires that the challenged conduct involve choice by the government employee.<sup>181</sup> If the first prong has been satisfied, the second prong requires a court to determine whether the employee's choice was of the kind that Congress intended to protect.<sup>182</sup> The Court invoked *Varig's* language to explain that Congress desired to "prevent judicial 'second guessing' of legislative and administrative decisions grounded in social, economic, and political policy through the medium of an action in tort."<sup>183</sup> Thus, a decision invoking broad public policy judgment would receive the protection of the discretionary function exception.<sup>184</sup>

In *Berkovitz*, an infant became paralyzed after contracting polio from a specific polio vaccine dose that the National Institute of Health (NIH) and the Food and Drug Administration (FDA) had negligently approved and licensed.<sup>185</sup> The infant's family sued

178. Compare *Berkovitz v. United States*, 822 F.2d 1322, 1329-32 (3d Cir. 1987) (holding that the discretionary function exception bars a negligence action against the FDA's licensing of a polio vaccine), with *Baker v. United States*, 817 F.2d 560, 564-66 (9th Cir. 1987) (holding that the discretionary function exception does not bar a negligence action against the FDA's licensing of a polio vaccine).

179. *Berkovitz v. United States*, 486 U.S. 531, 536 (1988). Compare Amy M. Hackman, Note, *The Discretionary Function Exception to the Federal Tort Claims Act: How Much is Enough?* 19 CAMPBELL L. REV. 411, 420-21 (1997) (arguing that the Court created the two-pronged test in *Varig*), with Zillman, *supra* note 28, at 370-71 (arguing that the Court created the two-pronged test in *Berkovitz*).

180. See *Berkovitz*, 486 U.S. at 538. In the Third Circuit and the instant case, the United States argued that *Varig* stood for the proposition that all actions of a federal regulatory agency were immune from liability under the FTCA. See *id.* However, the Court stated that the FTCA's text proved dispositive, as the exception protected "discretionary" functions, rather than "regulatory" functions. *Id.*

181. See *id.* at 536. In creating the first prong, the Court relied on the text of the exception. See also 28 U.S.C. § 2680(a) (1994).

182. See *Berkovitz*, 486 U.S. at 536.

183. *Id.* at 536-37.

184. See *id.*

185. See *id.* at 533. The two-month old received the vaccine, Orimune. See *id.* The Bureau of Biologics of the FDA along with the Division of Biologic Standards (DBS) of the NIH approved the vaccine manufactured by Lederle Laboratories. See *id.* The Court judged both actions, the negligent approval and the initial licensing, under a motion to dismiss. See *id.* at 533-34.

the NIH and the FDA for two actions—the negligent approval of the vaccine and the negligent licensing of the vaccine.<sup>186</sup>

Regarding the negligent approval of the vaccine, the Court applied the first prong and asked whether the decisionmaker of the alleged negligent conduct had the ability to use his or her judgment.<sup>187</sup> The Court stated that federal regulations establishing a process that leaves no room for judgment do not fall under the discretionary function exception.<sup>188</sup> The regulations in *Berkovitz* did not leave room for NIH and FDA officials to have “knowingly approved” a vaccine that violated its own safety standards.<sup>189</sup> Consequently, the Court held that the complaint was “directed at a governmental action that allegedly involved no policy discretion.”<sup>190</sup> The Court distinguished the instant case from *Varig*, in which the FAA’s “spot-checking” inspection plan necessarily involved policy judgment by the FAA inspectors.<sup>191</sup> Thus, the discretionary function exception did not bar the negligent approval suit in *Berkovitz* because the first prong was not satisfied.<sup>192</sup> If the first prong is not satisfied, a court need not address the second prong.<sup>193</sup>

However, the Court could not ultimately resolve the issue of whether the discretionary function exception protected the government’s licensing of the vaccine’s production.<sup>194</sup> The Court attempted to finalize the issue by splitting the plaintiff’s negligent licensing claim into two components.<sup>195</sup> First, if the plaintiff was alleging that the NIH licensed the vaccine without testing whether it conformed to statutory guidelines, then the discretionary function exception does not immunize the government.<sup>196</sup> In this scenario, the suit could proceed because a decision that violates a “specific mandatory directive” involves no discretion.<sup>197</sup> This would violate the first prong of the test because disregarding a regulation mandating a predetermined course of action involves no discretion. On the other hand, if the complaint alleges that a government followed the regulations but determined compliance

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186. See *id.* at 540-42.

187. See *id.* at 546-47.

188. See *id.*

189. *Id.* at 547.

190. *Id.*

191. *Id.* at 546.

192. See *id.* at 547-48.

193. See *id.*

194. See *id.* at 545.

195. See *id.* at 543.

196. See *id.* at 544. Federal regulations at that time mandated that the DBS could not license a polio vaccine without first testing the vaccine and determining that it satisfies the statutory standards. See *id.*

197. See *id.* “When a suit charges an agency with failing to act in accord with a specific mandatory directive, the discretionary function does not apply.” *Id.*

incorrectly, a court must decide if the "manner and method of determining compliance with the safety standards at issue involve agency judgment of the kind protected by the discretionary function exception."<sup>198</sup> This would answer the first prong of the test in the affirmative by concluding that the government officials did possess the latitude to invoke their own choice. However, without more specific information, the Court could not resolve the second prong, because it could not analyze whether public policy of the kind intended by Congress existed.<sup>199</sup> Given the lack of information on this issue, the Court remanded the case to the district court for a determination of whether the NIH uses judgment in issuing licenses to polio vaccine manufacturers.<sup>200</sup>

Nevertheless, the Court did reveal how to apply the second prong of the newly formulated *Berkovitz* test when it held that discretionary acts could exist without the presence of specific statutory rules. In *United States v. Gaubert*, the primary shareholder of an insolvent savings and loan (S&L) sued the Federal Home Loan Bank Board (FHLBB) for the negligent supervision of the S&L's directors and mismanagement of the S&L.<sup>201</sup> Unlike *Varig* and *Berkovitz*, which involved specific federal regulatory schemes, federal regulations did not dictate the operation of the S&L.<sup>202</sup> While applying the first prong of the *Berkovitz* test, the Court held that the FHLBB used discretion in its operation of the S&L, as the "agencies here were not bound to act in a particular way."<sup>203</sup> Thus, FHLBB managers possessed the ability to invoke personal judgment in the operation of the S&L. Before concluding whether the discretionary function exception applied to the allegedly negligent conduct, the Court had to deal with the second prong—whether the policy judgment

198. *Id.* at 544-45. The Court defined "discretion of the kind protected" by citing *Varig* as the discretion to "prevent judicial 'second-guessing' of legislative and administrative decisions grounded in social, economic, and political policy through the medium of an action in tort." *Id.* at 539. It further illustrated the discretion as "decisions based on considerations of public policy . . . involve . . . the permissible exercise of policy judgment." *Id.*

199. *See id.* at 545.

200. *Id.* The briefs touched on this issue, as the plaintiffs alleged that the NIH uses "objective scientific standards." *Id.* Meanwhile the government asserted that it had employed "policy judgment." *Id.*

201. *United States v. Gaubert*, 499 U.S. 315, 318-20 (1991). The FHLBB took over the management of the S&L, Independent American Savings Association (IASA). *See id.* The FHLBB replaced IASA's directors and later participated in the daily management of IASA. *See id.*

202. *See id.* at 329. Congress had provided some regulatory guidelines for the FHLBB. *See*, for example, 12 U.S.C. § 1464(d)(6)(A), enumerating particular grounds for appointing a conservator or receiver but granting the power to determine whether those grounds existed in "the opinion of the Board." *Gaubert*, 499 U.S. at 329. *But see supra* notes 163, 173, 196 and accompanying text.

203. *Gaubert*, 499 U.S. at 329.

employed by the FHLBB managers was the kind that Congress intended to protect.<sup>204</sup>

During its application of the second prong in *Gaubert*, the Court continued its dissipation of *Indian Towing's* planning/operational distinction by concluding that discretionary acts could exist on an operational level. In reversing the U.S. Court of Appeals for the Fifth Circuit, the Supreme Court held that the determining question in deciding the discretionary function exception's applicability was not the planning/operational differentiation but whether the decision in question involved any broad public policy judgments.<sup>205</sup> The Fifth Circuit had stated that because the alleged negligent acts occurred in the daily management of the S&L, the discretionary function exception did not bar suit and that daily management fell under the operational branch of *Indian Towing's* planning/operational standard.<sup>206</sup>

Citing the fact that the FHLBB based its decisions regarding the S&L's management on "considerations of public policy," the Supreme Court held that the alleged negligent acts involved significant policy judgments.<sup>207</sup> The Court cited broad policy judgments including the desire to protect the S&L industry at large by insuring public confidence and protecting the assets of the depositors at the S&L.<sup>208</sup> These considerations implicated "social, economic, or political policies" that necessarily force an affirmative answer to the second prong.<sup>209</sup> Thus, the discretionary function exception prohibited *Gaubert* from pursuing the United States under the FTCA.<sup>210</sup> However, the Court went one step further when analyzing the second prong of the *Berkovitz* test. The Court created a presumption that when there has already been a finding of discretion, the discretionary function exception will immunize the government.<sup>211</sup> In other words, a court will presume the satisfaction of the second prong, if the first prong has been satisfied. However, the Court limited this presumption's existence to when the first prong has been

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204. See *id.* at 332.

205. See *id.* at 325-26.

206. See *id.* at 326.

207. *Id.* at 332-33. Some of these decisions included the replacement of IASA's management because the FHLBB desired to protect the insurance fund. See *id.* at 332. They also converted the IASA to a federally chartered institution because the FHLBB wanted the protection of federal oversight. See *id.* at 332-33.

208. See *id.* at 332 (citing *Gaubert v. United States*, 885 F.2d 1284, 1290 (5th Cir. 1989)).

209. *Id.*

210. See *id.* at 334.

211. See *id.* at 324.

satisfied through "established governmental policy, as expressed or implied by statute, regulation, or agency guidelines."<sup>212</sup>

However, in a partial concurrence in *Gaubert*, Justice Scalia altered the majority's implementation of the *Berkovitz* test in two respects.<sup>213</sup> First, Justice Scalia opined that a court could examine the status of the decisionmaker.<sup>214</sup> Scalia argued that a decision made by a high government official leads to a presumption that the decision satisfies both of *Berkovitz's* prongs.<sup>215</sup> Since the FHLBB guidelines for the management of the S&L were based on economic considerations made by the high-ranking FHLBB, Justice Scalia agreed with the majority that the discretionary function exception immunized the government from *Gaubert's* allegations.<sup>216</sup> Second, in reinforcing the *Berkovitz* test, Justice Scalia agreed that a decision must not only involve discretion, but also must be "grounded in social, economic, [or] political policy," to receive immunity.<sup>217</sup> In order to determine when a decision is "grounded in social, economic, [or] political policy," Justice Scalia argued that a court should examine the planning/operation distinction.<sup>218</sup> Justice Scalia believed that this distinction was significant because decisions normally made at an operational level often do not employ broad public policy discretion.<sup>219</sup>

212. *Id.* at 324. With this limitation covering "implied" statutes, regulations, or guidelines as well as "express" statutes, regulations, or guidelines, one may wonder about the purpose of the limitation in the first place. After all, limitation by implication seems to pose a paradoxical problem.

213. *See id.* at 335 (Scalia, J. concurring in part and in the judgment).

214. *See id.* at 336. This argument directly conflicts with *Varig* where the Court stated that the "nature of the conduct, rather than the status of actor" is analyzed in assessing whether the discretionary function exception applies. *See supra* note 167 and accompanying text.

215. *See Gaubert*, 499 U.S. at 337.

216. *See id.* at 338-39.

217. *Id.* at 335 (quoting *Varig*, 467 U.S. at 814); *see also supra* notes 171-77 and accompanying text.

218. *See Gaubert*, 499 U.S. at 335. "This test, by looking not only to the decision but also to the officer who made it, recognizes that there is something to the planning vs. operational dichotomy." *Id.* at 335.

219. *See id.* at 335. Justice Scalia illustrated his point by referring to the facts of *Dalehite*, which first invoked the planning/operational distinction. *See id.* at 335-36. He noted that that the

dock foreman's decision to store bags of fertilizer in a highly compact fashion is not protected by this exception because, even if he carefully calculated considerations of cost to the Government vs. safety, it was not his responsibility to ponder such things; the Secretary of Agriculture's decision to the same effect is protected, because weighing those considerations is his task.

*Id.*

While Supreme Court discretionary function exception caselaw has taken a convoluted path over the fifty years of the FTCA's existence, the Court has formulated the manageable two-pronged *Berkovitz* test as a foundation. Despite Justice Scalia's attempts to preserve *Indian Towing's* planning/operational distinction and incorporation of the decisionmaker's position, *Berkovitz* and *Gaubert* have solidified the two-pronged test as the constitutional criteria that courts apply to discretionary function exception issues.<sup>220</sup> The first prong of the test is sufficiently straight-forward, as it often turns on whether the regulations leave room for a government employee to exercise discretion. However, the second prong appears to be where most of the confusion originates because the decisions must be grounded in social, political, and economic considerations to receive immunity. While this definition provides some guidance, the second prong still gives lower courts an opening to create their own formula for resolving whether the discretionary function exception protects an allegedly negligent government activity. Therefore, an analysis of U.S. Courts of Appeals caselaw is necessary to discern how lower courts have applied the *Berkovitz* double-pronged test.

### B. Analysis by the U.S. Courts of Appeals<sup>221</sup>

#### 1. Actions Resulting from a Series of Decisions

In applying the *Berkovitz* test, the U.S. Court of Appeals for the Third Circuit tackled the issue of which decision amidst a

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220. Even though both *Berkovitz* and *Gaubert* employ the two-pronged test, this Note will refer to the test as the *Berkovitz* test for clarity. See generally *supra* note 179 and accompanying text; *infra* note 323 and accompanying text.

221. This Note does not attempt to provide a comprehensive survey of each U.S. Court of Appeals discretionary function exception caselaw. For exhaustive analysis, see generally Zillman, *supra* note 28; Hackman, *supra* note 179. This Note addresses *only those* Courts of Appeals cases that (1) were handed down after the Supreme Court's latest discretionary function exception case—*Gaubert* (which refined the *Berkovitz* test), (2) differ substantially from the Supreme Court's *Berkovitz* test, and (3) are relevant to the GPS hypothetical in this Note. The confusion surrounding the *Berkovitz* test has caused most Courts of Appeals to alter the *Berkovitz* test in a manner that meets these three limitations. Thus the only Courts of Appeals that this Note will not address are the Second, Seventh, and Eighth Circuits. These three circuits have not substantially altered the *Berkovitz* test after *Gaubert* or dealt with issues that would be particularly helpful to our GPS analysis. Nevertheless, for discretionary function caselaw from the Second Circuit, see *Lewis v. Babcock Indus., Inc.*, 985 F.2d 83 (2d Cir. 1993). For discretionary function caselaw from the Seventh Circuit, see *Calderon v. United States*, 123 F.3d 947 (7th Cir. 1997); *Grammatico v. United States*, 109 F.3d 1198 (7th Cir. 1997); *Maas v. United States*, 94 F.3d 291 (7th Cir. 1996); *Rothrock v. United States*, 62 F.3d 196 (7th Cir. 1995). For a discussion of discretionary function caselaw from the Eighth Circuit, see *infra* notes 268, 273 and accompanying text.



string of judgments involved in an allegedly negligent act a court must analyze. In *Fisher Bros. Sales, Inc. v. United States*,<sup>222</sup> a series of decisions made by the FDA Commissioner led to the eventual ban of the importation of supposedly contaminated Chilean fruit.<sup>223</sup> The FDA instituted the ban after discovering a grape containing cyanide.<sup>224</sup> However, subsequent tests could not confirm the presence of the cyanide or any other poisoned grapes.<sup>225</sup> Consequently, Chilean fruit growers and exporters along with U.S. importation firms sued the United States under the FTCA.<sup>226</sup> Under the first prong—whether the decisionmaker had discretion—the court focused on the fact that it was the FDA Commissioner who decided to ban the Chilean fruit.<sup>227</sup> A person in that position obviously possesses the ability to make value judgments independent of any statutory-based provision.<sup>228</sup> Under the second prong, given the risk involved caused by allowing contaminated food reach the market and the time pressures of the situation, the Third Circuit determined that the decision was an “inherent part of the policymaking process.”<sup>229</sup> Therefore, the discretionary function exception immunized the government from liability.<sup>230</sup> However, the plaintiffs attempted an end run around the discretionary function exception by alleging that the decision leading to the ban was not the FDA Commissioner’s, but the decision was “based on” negligent laboratory tests that found one grape containing cyanide.<sup>231</sup> The plaintiffs claimed that the FDA would not have banned the

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222. 46 F.3d 279 (3d Cir. 1995).

223. See *id.* at 282-83. An anonymous person called the United States Embassy in Santiago, Chile and reported that he had laced fruit bound for the United States with cyanide. See *id.* at 282.

224. See *Fisher Bros.*, 46 F.3d at 283.

225. See *id.*

226. See *id.*

227. See *id.* at 285.

228. See *id.*; see also *supra* notes 214-16 and accompanying text (explaining Justice Scalia’s concurrence in *Gaubert* where he noted that a person’s position can influence the outcome of the *Berkovitz* test).

229. *Fisher Bros.*, 46 F.3d at 285.

230. See *id.*

231. See *id.* at 283; see also *General Dynamics Corp. v. United States*, 139 F.3d 1280, 1282-86 (9th Cir. 1998); *Block v. Sacramento Clinical Labs, Inc.*, 182 Cal. Rptr. 438 (Ct. App. 1982) (involving a plaintiff who attempted a similar end run by attacking the preparer of a report). In *General Dynamics Corp. v. United States*, a defense contractor sued the United States under the FTCA for reimbursement of attorney’s fees incurred in defending a fraud prosecution and its related civil action. See *General Dynamics*, 139 F.2d at 1281-82. *General Dynamics* attempted to recharacterize its injury by alleging that the harm stemmed from how prosecutors gathered their information. See *id.* at 1286. “Where, as here, the harm actually flows from the prosecutor’s exercise of discretion, an attempt to recharacterize the action as something else must fail. And there can be no doubt that the buck stopped at the prosecutors.” *Id.* at 1286.

Chilean fruit if the lab technicians had not negligently performed the tests on the grapes.<sup>232</sup>

The court ruled that the plaintiff's end-run argument could not stand for four reasons. First, allowing claims to proceed under the FTCA for actions "based on" underlying decisions would essentially eliminate the purpose of the discretionary function exception.<sup>233</sup> Instead of reducing "judicial second-guessing," a goal of the discretionary function exception stated in *Varig*, the plaintiffs' end run would increase judicial review.<sup>234</sup> Second, if liability were found in this case, courts would be swamped in discovery, because to adequately try allegations such as the one asserted by the plaintiffs, there would have to be an examination of the source of each policy decision.<sup>235</sup> This runs counter to the Supreme Court's reasoning in *Gaubert*, where the Court prevented inquiry into decisionmakers' "subjective intent in exercising the discretion conferred by statute or regulation."<sup>236</sup> Third, finding liability in this context would create a chilling effect that would impair the ability of high-level government officials to perform their duties.<sup>237</sup> Fourth, the present case differed from *Berkovitz* in which the decision violated established regulations that had removed the official's discretion.<sup>238</sup> Consequently, the Third Circuit found that the only decision to be analyzed under the discretionary function exception was the one that actually led to the putative injury.<sup>239</sup>

However, the dissent in *Fisher Bros.* believed that *Berkovitz* controlled the instant case because the tests on the grapes paralleled the tests on the polio vaccine.<sup>240</sup> The dissent received six of the thirteen votes of the Third Circuit that specifically reargued the case en banc.<sup>241</sup> In writing for the dissent, Judge Roth concluded that the proper way to determine which decision

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232. See *Fisher Bros.*, 46 F.3d at 283. See generally Richard H. Seamon, *Causation and the Discretionary Function Exception to the Federal Tort Claims Act*, 30 U.C. DAVIS L. REV. 691 (1997) (analyzing the proximate causation issues with torts under the FTCA's discretionary function exception, which relates to this discussion of how to discern which decision among a string of them should be analyzed under the *Berkovitz* test because the allegedly negligent act should be the cause of the damage to the plaintiff).

233. See *Fisher Bros.*, 46 F.3d at 286.

234. See *id.*

235. See *id.*

236. *Id.* (citing *Gaubert*, 499 U.S. at 325).

237. See *id.* at 287.

238. See *id.* The plaintiffs argued that *Berkovitz* controlled in the instant case because the laboratory test was in effect a regulation that deprived the FDA Commissioner of his discretion. See *id.* However, the court stated that a test in no way removed the Commissioner's discretion. See *id.*

239. See *id.* at 288.

240. See *id.* at 289.

241. See *id.*

deserves analysis is to consider whether the decision necessarily relies on scientifically reliable and accepted tests.<sup>242</sup> If the tests were necessary to make the decision, Judge Roth argued that the discretionary function exception should not apply to "actions which predictably follow from the test results."<sup>243</sup> Thus, judgments based upon implicit test results would lack the choice and independent review required for the resulting actions to receive immunity under the discretionary function exception.<sup>244</sup>

## 2. A Presumption of Finding a Decision Grounded in Public Policy

While the Third Circuit addressed which decisions to use in the Supreme Court's *Berkovitz* test, the U.S. Court of Appeals for the Fourth Circuit has virtually created a new test by expanding both prongs of the analytical fork and disregarding the Supreme Court's pertinent statements of law. In *Bernaldes v. United States*, a mineworker died in a mine that had safety violations.<sup>245</sup> The estate of the worker sued the United States for the Mine Safety and Health Administration's (MSHA) negligent mine inspection.<sup>246</sup> In applying the first prong of the test, the court stated that while the MSHA regulations mandated certain requirements, the regulations still left room for a mine inspector's judgement, such as whether a danger of falling is enough of a risk to require the use of safety belts.<sup>247</sup> However, this statement directly conflicts with *Gaubert*, in which the Supreme Court stated that the "focus of the inquiry is not on the agent's subjective intent in exercising the discretion conferred by statute or regulation, but on the nature of the actions taken."<sup>248</sup>

Moreover, when the *Bernaldes* court addressed the second prong of the analysis, it automatically assumed that the second prong is satisfied if the first prong is met. The Fourth Circuit misinterpreted *Gaubert's* statement that acting in furtherance of public policy "must be presumed" when a court finds that a government employee possessed discretion.<sup>249</sup> Consequently, the Fourth Circuit held that the estate could not proceed with its suit under the FTCA.<sup>250</sup>

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242. *See id.*

243. *Fisher Bros. Sales, Inc. v. United States*, 46 F.3d 279, 289 (3d Cir. 1995).

244. *See id.*

245. 81 F.3d 428 (4th Cir. 1996).

246. *See id.*

247. *See id.* at 429.

248. 499 U.S. 315, 325 (1991).

249. *See Bernaldes*, 81 F.3d at 429.

250. *See id.*

The Fourth Circuit's reasoning is flawed for one primary reason. *Gaubert* specifically states that there is a *presumption* of the second prong's satisfaction and *not* an automatic assumption.<sup>251</sup> If the first prong of the *Berkovitz* test were dispositive of the discretionary function exception's applicability, there is no reason for the Supreme Court to have created two prongs. Whatever the reasoning behind the opinion, the Fourth Circuit in *Bernaldes* has added to the already convoluted database of discretionary function exception caselaw.

Meanwhile, in a strikingly similar case to *Bernaldes*, the U.S. Court of Appeals for the Sixth Circuit reached the opposite conclusion by applying both prongs of the *Berkovitz* test. In *Myers v. United States*, the estates of several miners sued the MSHA for negligently inspecting a coal mine.<sup>252</sup> Similar to the *Bernaldes* court, the *Myers* court referred to the "if/then logical structure" of the federal MSHA regulations granting the inspectors the necessary discretion.<sup>253</sup> Since the MSHA inspectors must exercise judgment in applying each regulation, the court found the first prong of the *Berkovitz* test satisfied.<sup>254</sup> In applying the second prong of the test, the *Myers* court cited the strong presumption in favor of finding discretion in furtherance of public policy once the first prong established discretion.<sup>255</sup>

*Myers* differed from *Bernaldes*, however, by citing the Supreme Court's statement that the presumption was "rebuttable."<sup>256</sup> The Sixth Circuit then rejected the presumption because if it accepted the presumption, similar to *Bernaldes*, the discretionary function exception would swallow the FTCA as a whole.<sup>257</sup> The court found that the discretionary function

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251. See *Gaubert*, 499 U.S. at 324.

252. 17 F.3d 890 (6th Cir. 1994). The plaintiffs sued the MSHA for its failure to perform seven "mandatory non-discretionary" duties arising from federal safety regulations. *Id.* at 893. For example, the plaintiffs' first claim alleged that the MSHA did not fulfill C.F.R. § 75.316 (requiring the disapproval of "unsafe and inadequate ventilation plans proposed by mine operators"). See *id.* Inadequate ventilation caused the explosion of methane gas that created the instant suit. See *id.* at 892-93.

253. *Id.* at 895. "If the mine inspector determines that a particular condition exists, then the statutes and regulations require the inspector to take some specific action or to choose from among a limited range of actions." *Id.* For example, one of the MSHA regulations involving the "if/then logical structure" stated: "if 'an especially hazardous condition' is found, then the inspectors must conduct spot inspections once every five years. . . ." *Id.*

254. See *id.* at 895-96.

255. See *id.* at 896.

256. *Id.*

257. See *id.* at 897. The *Myers* court warned that barring the suit "would result in precisely the kind of sweeping application of the discretionary function exception that the Court rejected [in *Berkovitz*]." See *id.*; see also *General Dynamics Corp. v. United States*, 139 F.3d 1280, 1284 (9th Cir. 1998) (illustrating

exception did not bar the plaintiff's claims because the MSHA inspectors employed discretion not based on "political, social, or economic policy."<sup>258</sup> Although the discretionary function exception did not bar the suit, the court ruled that the plaintiffs could not pursue their cause because Tennessee tort law did not provide a remedy.<sup>259</sup> This result concurs with the FTCA's purpose, which does not create liability but merely imposes liability available to a "private individual in similar circumstances."<sup>260</sup>

The U.S. Court of Appeals for the Fifth Circuit has similarly upheld the presumption of finding the second prong satisfied after finding that the first prong was met, even when no federal guidelines govern the alleged negligent decision. In *Baldassaro v. United States*, seaman Baldassaro brought a personal injury claim against the United States after a detachable sea rail separated from his bunk.<sup>261</sup> Although Baldassaro sued the United States under the Suits in Admiralty Act (SAA), which lacks a discretionary function exception, the court implied a discretionary function into the SAA.<sup>262</sup> In analyzing whether the

the concern of the discretionary function exception swallowing up the rule of the FTCA).

258. *Myers*, 17 F.3d at 896-97. The court decided that the inspectors did not exercise the proper discretion after comparing the case at bar with *Gaubert*. *See id.* at 897. The *Myers* court highlighted *Gaubert*, where the bank officers' discretion related to the broad policy concerns of protecting the banking industry and preserving consumer confidence. *See id.* at 898. The same level of discretion was not given to the MSHA inspectors because Congress and the Secretary of Labor had considered the broad policy implications. *See id.* Consequently, the MSHA inspectors were just the implementers of the policy. *See id.*

259. *See id.* at 900.

260. *Id.* at 899. 28 U.S.C. § 2674 specifies that the FTCA is not an independent source of liability. *See Myers*, 17 F.3d at 899. Moreover, the court noted that its discussion of the discretionary function exception before addressing whether the state offered a common law remedy was "putting the cart before the horse." *Id.* at 898.

261. 64 F.3d 206, 207 (5th Cir. 1995). Although a sea rail is primarily used to protect a sailor from rolling out of bed during heavy weather, they can also serve as hand rails. *See id.* at 210. The railing was at the foot of the bed, and the seaman claimed that the failure to secure the railing was the negligent act. *See id.* at 207. The original design of the ship in question, the *Cape Carthage*, specified permanent sea rails. *See id.* However, this design was considered too new and expensive when the *Cape Carthage* was built in the 1960s. *See id.* At the time of the injury in 1991, detachable sea rails were still the standard in American and foreign vessels. *See id.* at 210. Consequently, the use of detachable sea rails complied with the Maritime Administration's standards. *See id.*

262. *See id.* at 208; *supra* notes 26, 30 and accompanying text. The Fifth Circuit did not alter the discretionary function exception from the codified language in the FTCA. *See Baldassaro*, 64 F.3d at 208. This Note, however, does not address whether the other Circuits implying a discretionary function exception into the SAA have changed it from the one that appears in 28 U.S.C. § 2680(a). A majority of Circuits have implied a discretionary function exception into the SAA. *See Chute v. United States*, 610 F.2d 7, 11-13 (1st Cir. 1979); *Sea-Land Serv., Inc.*

government possessed discretion, the *Baldassaro* court noted that no regulations governed the use of sea rails.<sup>263</sup> Therefore, the court concluded that the United States had the discretion necessary to satisfy the first prong of the *Berkovitz* test.<sup>264</sup> In the second prong, the Fifth Circuit relied on the Supreme Court's presumption of finding that the discretion employed was grounded in public policy.<sup>265</sup> Although *Baldassaro* argued that the installation of sea rails turned on non-public policy considerations such as safety and comfort, the court still found second prong of the *Berkovitz* test satisfied because of *Gaubert's* recommendation that courts should not engage in judicial second-guessing.<sup>266</sup> Thus the court used the policy argument of deferring to the legislature as proof of the policy considerations required by the second prong of the *Berkovitz* test.<sup>267</sup>

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v. United States, 919 F.2d 888, 891 (3d Cir. 1990); *Wiggins v. United States*, 799 F.2d 962, 966 (5th Cir. 1986); *Gemp v. United States*, 684 F.2d 404, 408 (6th Cir. 1982); *Bearce v. United States*, 614 F.2d 556, 558-60 (7th Cir. 1980); *Earles v. United States*, 935 F.2d 1028, 1030-32 (9th Cir. 1991); *Williams v. United States*, 747 F.2d 700 (11th Cir. 1984) (per curiam) *aff'g* *Williams ex rel. Sharpley v. United States*, 581 F. Supp. 847, 853-55 (S.D. Ga. 1983). Although the Fourth Circuit has not explicitly read a discretionary function exception into the SAA, *Tiffany v. United States* applied a discretionary function exception into the SAA based on constitutional separation of powers concerns. 931 F.2d 271, 277 (4th Cir. 1991). For a review of the Circuits as of 1985 that had implied a discretionary function exception into the SAA, see *Fadely, supra* note 26, at 183-84. The Fifth Circuit, the *Baldassaro* court, first implied a discretionary function exception in *Wiggins v. United States*. 799 F.2d at 966.

263. See *Baldassaro*, 64 F.3d at 209. Given the importance of federal specifications to determine the existence of employee discretion, the court looked to all available sources of guidance but could discover none: "there are no statutes, regulations, policies, guidelines, or Maritime Administration (MARAD) standards that require sea rails to be attached permanently to the bunks . . . ." *Id.*

264. See *id.* Although the court found the lack of standards as convincing evidence for finding discretion, it also cited the history of the *Cape Carthage's* construction and later purchase by MARAD as evidence of discretion by the United States. See *id.* at 209-10.

265. See *id.* at 211. The court stated that "the appropriate inquiry is whether the act in question is 'susceptible to policy analysis.'" See *id.* (emphasis added).

266. See *id.* The court noted that almost any government decision (i.e., the installation of sea rails on a ship) could be reduced to such minute components so as to avoid a connection to the broad policy decisions that Congress intended the discretionary function exception cover. See *id.* It stated, however, that "[w]e are neither in a position—nor do we desire to be—to dissect and second-guess each discreet aspect of a total design package that is grounded in policy considerations pertaining to national defense." *Id.* at 211-12.

267. See *id.* at 210-11.

3. Protection for "Unique Government Functions"<sup>268</sup>

Other U.S. Courts of Appeals, however, have not followed Supreme Court caselaw quite as closely as the Fifth Circuit. In fact, they have ignored the Supreme Court's dicta to refrain from immunizing "unique government functions." In *Faber v. United States*, Todd Faber sued the United States for failure to post no diving signs at Coronado National Forest.<sup>269</sup> In this case, the U.S. Court of Appeals for the Ninth Circuit stated that if the "government can prove that the actions taken by its employees consisted of the unique functions and responsibilities of the government, then the government cannot be held liable under the FTCA even if a private individual would be held liable."<sup>270</sup> This statement conflicts with the Supreme Court when the Court rejected the "unique government function" argument in *Indian Towing* by stating that "all Government activity is inescapably 'uniquely governmental' in that it is performed by the Government."<sup>271</sup>

In order to create protection for a "unique government function," the Ninth Circuit used the second prong of the *Berkovitz* test to examine whether the discretion employed by the Forest Service implicated public policy considerations.<sup>272</sup> Since

268. Hackman, *supra* note 179, at 438-39 argues that the Eighth Circuit has carved out protection for "unique government functions" in *Appley Bros. v. United States*, 7 F.3d 720, 726-27 (8th Cir. 1993) (holding that the discretionary function exception did not bar a claim that the United States negligently inspected a grain warehouse) and *Tonelli v. United States*, 60 F.3d 492, 496 (8th Cir. 1995) (holding that the discretionary function exception bars a claim alleging the negligent hiring of a postal employee but does not bar a claim alleging the negligent investigation of mail tampering). However, neither *Appley* nor *Tonelli* even mention the phrase "unique government function." See generally *Tonelli*, 60 F.3d 492; *Appley Bros.*, 7 F.3d 720.

269. 56 F.3d 1122, 1123 (9th Cir. 1995). Todd Faber dove from a rock ledge at the Tanque Verde Falls in Coronado National Forest. See *id.* Faber dove to a pool 20 feet below the ledge. See *id.* On the way down, Faber struck his head and became a quadriplegic. See *id.* At the top of the falls, four different signs warned of general danger and the threat of natural disasters such as flash flooding and slippery rocks. See *id.* However, no signs specifically mentioned the danger of diving. See *id.* at 1123-24.

270. 56 F.3d 1122, 1124 (9th Cir. 1995). The court relied on a House of Representatives report that noted that "[t]he purpose of the discretionary function exception is to protect the ability of the government to proceed with decisionmaking in carrying out its *unique and vital* functions without 'second-guessing' by the courts as to the appropriateness of its policy choices." *Id.* at 1124 (emphasis added) (quoting H.R. Rep. No. 1015, 101st Cong. 2d Sess. 134 (1991)).

271. *Indian Towing Co. v. United States*, 350 U.S. 61, 64-65 (1956). The FTCA makes the United States liable "in the same manner and to the same extent as a private individual under like circumstances. . . ." 28 U.S.C. § 2674 (1994).

272. See *Faber*, 56 F.3d at 1124-25. The court found that the government did not satisfy the first prong of the *Berkovitz* test because the Forest Service had

the decision not to install a warning sign involved “considerations of safety, not public policy,” the exception did not apply.<sup>273</sup> Although it did not protect a “unique government function” in *Faber*, the court stated that the discretionary function exception should protect the government when it engages in “unusual situations where the government was required to engage in broad, policymaking activities or to consider unique social, economic, and political circumstances. . . .”<sup>274</sup> By reformulating the second prong of the *Berkovitz* test to include “unique” policy considerations, the Ninth Circuit has expanded the test by immunizing the government for its unique functions.<sup>275</sup>

While not specifically mentioning a “unique government function,” the U.S. Court of Appeals for the Eleventh Circuit applied the discretionary function exception to the exclusive government activity of the Postal Service. In *Hughes v. United States*, a post office patron sued the United States when she was shot at a U.S. post office.<sup>276</sup> The plaintiff alleged that the United

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no discretion to exercise. *See id.* at 1126-27. As of January 1993, six of the sixty-seven accidents occurring at the Falls were diving accidents. *See id.* at 1126 n.3. Therefore, the Forest Service had created a site management plan that specified remedying the lack of no diving signs at the Falls. *See id.* at 1126. Since the Forest Service’s actions contradicted its own plan, it was not exercising discretion. *See id.* Nevertheless, the court continued with the *Berkovitz* test and applied the second prong. *See id.* at 1127.

273. *Id.* at 1125; *Aslakson v. United States*, 790 F.2d 688, 693 (8th Cir. 1986) (determining that the discretionary function exception does not apply when the challenged government action involves safety rather than policy considerations).

274. *Faber*, 56 F.3d at 1125; *see also Lesoeur v. United States*, 21 F.3d 965, 970 (9th Cir. 1994) (holding that the discretionary function exception applies because of the unusual circumstances surrounding the government’s failure to warn). In *Lesoeur*, the plaintiff sued for a failure to warn that the rafting tours in a national park were not regulated. *See Lesoeur*, 21 F.3d at 967. Since the Hualapi Indian Tribe operated the tours, the court held that the decision not to warn about the lack of regulation involved broad policy considerations. *See id.* at 970. Given that a warning about the lack of regulation could have caused hostility between the Forest Service and the Tribe, the *Lesoeur* court found the Forest Service’s decision possessed the necessary broad policy implications. *See id.*; *see also In re Consolidated Atmospheric Testing*, 820 F.2d 982, 997 (9th Cir. 1987) (holding that the discretionary function exception applies since “the decision whether to issue warnings to thousands of test participants of possibly life-threatening dangers [related to radiation stemming from the atomic detonation in Hiroshima] . . . calls for the exercise of judgment and discretion at high levels of government.”). Meanwhile in *Faber*, the court did not find circumstances similar to *Lesoeur* or *In re Consolidated Atmospheric Testing* to warrant the application of the discretionary function exception. *Faber*, 56 F.3d at 1127-28.

275. 56 F.3d at 1127. Inserting the word “unique” into second prong of the *Berkovitz* test differs from the Supreme Court’s statement of the second prong that the decision be “grounded in social, economic, and political policy.” *Berkovitz v. United States*, 486 U.S. 531, 537 (1988) (quoting *United States v. Varig*, 467 U.S. 797, 814 (1984)).

276. 110 F.3d 765, 766 (11th Cir. 1997). In *Hughes*, Mary Jo Hughes was shot in her car after she had checked her mail in her post office box at 10:45pm. *See id.*



States was negligent in not providing the necessary security at a post office with twenty-four hour mailbox access.<sup>277</sup> After finding that the post office had the necessary discretion to satisfy the first prong of the *Berkovitz* test, the court examined whether the discretion was "susceptible to policy analysis."<sup>278</sup> In finding the second prong of the *Berkovitz* test satisfied because the post office's discretion involved broad policy implications, the court cited a Congressional mandate directing the Postal Service to "bind the Nation together through the personal, educational, literary, and business correspondence of the people."<sup>279</sup> An agency established not only to deliver the nation's mail but also to "bind the Nation" necessarily performs a "unique government function." Therefore, one could argue that *Hughes* stands for the proposition that whenever an agency engages in an activity uniquely provided by the government, the discretionary function exception immunizes it from liability.<sup>280</sup>

#### 4. "Unique Government Functions" in a Military Context

Meanwhile, other U.S. Courts of Appeals have even included military activities within the scope of "unique government functions." In *Black Hills Aviation, Inc. v. United States*, the father of a civilian pilot sued the Army for the negligent investigation of his son's crashed airplane that was legally flying over the White Sands Missile Range.<sup>281</sup> After finding that no military regulation

277. *See id.* The complaint alleged lack of security, inadequate lighting in the building and parking lot, and the negligent maintenance of shrubs provided concealment for criminals. *See id.*

278. *Id.* at 768. The court examined the pertinent Postal regulations regarding the operation of U.S. Post Offices. *See id.* The Postal Operations Manual, § 221.2.23 (Issue 5, Jan. 31, 1983) states "[a]t the postmaster's discretion, lobbies may remain open when no one is on duty to allow customer access to post office boxes and self service equipment, provided customer safety, security provisions and police protection are deemed adequate." *Hughes*, 110 F.3d at 768. Federal regulations establish a security control office to be "responsible for the general security of the post office, its stations and branches, in accordance with rules and regulations issued by the Chief Postal Inspector." *Id.* Consequently, the court found the first prong satisfied since the security control officer was granted the *discretion* to decide if the security measures were adequate. *See id.*

279. *Id.* 39 U.S.C. § 101(a) charged the Postal Service with this mandate. *See id.*

280. It bears noting that the duties of the Post Office are no longer unique given the presence of private mail delivery companies such as FedEx, UPS, and others. At the time of its creation, however, Congress probably did not contemplate that private carriers would become as prevalent as they are today. Nevertheless, Congress' idea of the Post Office "binding" the nation still applies, albeit to a lesser degree.

281. 34 F.3d 968, 970 (10th Cir. 1994). The airplane was a fire-suppression tanker that the Army had called to extinguish a fire started by a missile explosion. *See id.* The range tests ground-to-air missiles for the Forward Area Air Defense System. *See id.* at 970-71. The father could not investigate the crash himself

mandated an investigation into civilian crashes, the U.S. Court of Appeals for the Tenth Circuit concluded that any investigation into the crash at issue was discretionary.<sup>282</sup> Therefore, the first prong of the *Berkovitz* test requiring discretion was satisfied.<sup>283</sup>

In analyzing whether the discretion qualified under the second prong of the *Berkovitz* test, the Tenth Circuit examined the concerns of the military and its unique role as provider of national defense.<sup>284</sup> The Tenth Circuit noted three policy considerations raised by the Army that are exclusive to its duties.<sup>285</sup> First, the Army referred to its limited resources to investigate accidents.<sup>286</sup> Second, the Army cited its lack of expertise in investigating accidents.<sup>287</sup> Third, the Army stated its desire to resume missile testing as soon as possible instead of investigating a civilian crash.<sup>288</sup>

In examining the third reason why the decision not to investigate the crash involved broad policy considerations,<sup>289</sup> the Tenth Circuit cited *Boyle v. United Technologies Corp.*<sup>290</sup> In *Boyle*, the Supreme Court permitted the balancing of military concerns such as “the trade-off between greater safety and greater combat effectiveness” within the context of the discretionary function exception.<sup>291</sup> Since the White Sands

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given the classified nature of the missile range. *See id.* at 971. He was allowed only an overflight of the wreckage, a visit to the site with a Public Affairs officer, and visits to remove parts of the wreckage. *See id.* The father alleged that the military failed to investigate the cause of the crash, destroyed evidence in the case, and committed the tort of trespass to chattel or conversion regarding the airplane’s wreckage. *See id.* at 970. After independently hiring accident experts to investigate the crash, the father gathered evidence that created a suspicion that the Army accidentally shot down the airplane. *See id.* at 971-72.

282. *See id.* at 973-76. The father argued that the Army owed a duty to investigate the crash as a “Legal Mishap Investigation” under DOD instruction 6055.7(E)(2)(a)(2)(c), or as a “Safety Mishap” under DOD Instruction 6055.7(E)(2)(a)(2)(a)-(b) or an “AR 15-6” investigation under DOD Instruction 6055.7. *See id.* at 973. The court, however, found that the regulations did not apply because the crash did not qualify as a “mishap” under the provisions of DOD Instruction 6055.7. *See id.* at 976.

283. *See id.*

284. *See id.* The Tenth Circuit applied a straightforward *Berkovitz* approach, as it stated that for the second prong to be satisfied, the discretion must be “based upon considerations of public policy.” *Id.* (quoting *Berkovitz v. United States*, 486 U.S. 531, 537 (1988)).

285. *See id.* at 976.

286. *See id.*

287. *See id.*

288. *See id.*

289. *See id.*

290. 487 U.S. 500, 511 (1988).

291. *Id.* *Boyle* held that the choice of design on military equipment falls within the discretionary function exception because it necessitates the “balancing of many technical, military, and even social considerations, including specifically the trade-off between greater safety and greater combat effectiveness.” *Id.*

officials factored the impediments of investigating the civilian crash into the Army's combat effectiveness, the *Black Hills* court held that the second prong of the *Berkovitz* test was satisfied.<sup>292</sup> By using combat effectiveness as a legitimate reason why a decision involves broad policy considerations, *Black Hills* seems to conclude that a FTCA claim against the military will always fall under the discretionary function exception. Consequently, the implications of the Supreme Court's decision in *Boyle* could extend beyond the Tenth Circuit's holding in *Black Hills*.<sup>293</sup>

The extension of *Boyle* through *Black Hills* has extended to at least one more circuit. In *Crumpton v. Stone*,<sup>294</sup> the U.S. Court of Appeals for the District of Columbia held that the discretionary function exception immunized the U.S. Army for its disclosure of investigative records.<sup>295</sup> The widow of the officer who had his personnel records released sued the United States for invasion of privacy and infliction of severe emotional distress.<sup>296</sup> The widow's allegations of negligence centered on a newspaper's Freedom of

292. See *Black Hills*, 34 F.3d at 976.

293. See *id.* But see Hackman, *supra* note 179, at 443 (arguing that *Tew v. United States*, 86 F.3d 1003 (10th Cir. 1996) actually reformulates the *Berkovitz* test to include unique governmental duties). As support for her proposition, Hackman cites the court's statement of the issue: "whether these alleged governmental duties fulfill the two requirements of the discretionary function exception." See Hackman, *supra* note 179, at 443 (quoting *Tew*, 86 F.3d at 1005). Hackman argues that the inclusion of "governmental duties" into the issue implicates the requirement that the discretionary function exception applies only to "unique governmental activities." See Hackman, *supra* note 179, at 443. In *Tew*, a mother brought a wrongful death suit against the Coast Guard for its failure to mark an underwater structure in the Illinois River. See 86 F.3d at 1004. The mother's son drowned when his raft struck this hidden structure. See *id.* However, Hackman's conclusion is incorrect for three reasons. First, the word "governmental" was used only to describe the duties of the Coast Guard. See *id.* at 1005-06. Since the Coast Guard is an entity of the United States, any duty undertaken by the Coast Guard would bear the imprimatur of the government. Second, the court did not use the word "unique." See *id.* at 1005. Third, in the two sentences before the one cited by Hackman, the *Tew* court specified the two-pronged *Berkovitz* test and then proceeded to analyze the case under that test while never mentioning governmental duties again. See *id.* While Hackman's ultimate conclusion that the discretionary function exception includes only unique governmental activities may prove correct, her use of *Tew* to support this assertion undermines the argument's credibility.

294. 59 F.3d 1400 (D.C. Cir. 1995). The case title is unique in that it is *Crumpton v. Stone* instead of *Crumpton v. United States*. The *Stone* in *Crumpton v. Stone* is Michael P.W. Stone, Secretary of the Army, the individual that *Crumpton* was required to sue in order to obtain her desired relief. See *id.*

295. See *id.* at 1402. The medical records were of an Army officer who had committed suicide after being investigated for "padding his travel expenses" and "accepting gratuities." *Id.* The records were released pursuant to a Freedom of Information Act request to local New Jersey newspapers. See *id.*

296. See *id.* at 1402-03. The records released to the papers included allegations linking *Crumpton* to the fraud and details regarding her discovery of and reaction to finding Col. *Crumpton*'s body after his suicide. See *id.* No charges were filed against Col. or *Crumpton*. See *id.*

Information Act (FOIA) request that led to the disclosure of the reports.<sup>297</sup> Noting that some exemptions to FOIA give an agency the power to refrain from releasing information, the D.C. Circuit held that the Army had discretion to decide whether to release its investigation report.<sup>298</sup> Therefore, the Army had satisfied the first prong of the *Berkovitz* test.<sup>299</sup>

During the application of second prong, the court insinuated that the military receives a degree of favoritism under the discretionary function exception. The court held that the Army satisfied the second prong because its unique duty of balancing a desire for public information against the need for secrecy was a public policy consideration involving political, social, and economic judgments.<sup>300</sup> The court referred to this weighing test as a "quintessential discretion function."<sup>301</sup> Since only government agencies are subject to the requirements of the FOIA,<sup>302</sup> one can argue that agencies engaging in unique government functions fall within the discretionary function exception. Or, at the very least, a plaintiff can never recover against the government for the negligent release of information pursuant to a FOIA request because FOIA requires the balancing of disclosure against secrecy.<sup>303</sup>

The U.S. military, by its very nature constantly balances the public's desire for information with the need for secrecy.<sup>304</sup> One could also argue, therefore, that the logical result of *Crumpton's* holding is the elimination of *Berkovitz's* second prong in military contexts. Thus, the only question that would remain for a case

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297. See *id.* at 1403-05. Although *Crumpton* alleged that Army regulations and the Privacy Act also prohibited the disclosure of the Army reports, the court focused its discretionary function analysis of the specifics of the FOIA request. See *id.*

298. See *id.* at 1404.

299. See *id.* The court supported its conclusion with *Mead Data Central, Inc. v. United States*, 566 F.2d 242, 258 (D.C. Cir. 1977) (stating that "the exemptions to the FOIA are permissive rather than mandatory"). See *Crumpton*, 59 F.3d at 1404.

300. See *id.* at 1406; see also *Department of the Air Force v. Rose*, 425 U.S. 352, 373 (1976) (arguing that balancing the need for disclosure with secrecy is fraught with public policy considerations).

301. *Crumpton*, 59 F.3d at 1406. See also *Hackman*, *supra* note 179, at 444 (arguing that this language incorporates a "unique government function" into the discretionary function exception).

302. FOIA was passed by Congress as 5 U.S.C. § 522(a) and pertains to government agencies not private citizens. See 5 U.S.C. § 522(a) (1994).

303. See *supra* notes 300-02 and accompanying text.

304. The author assumes that effective national defense necessarily requires that the government keep some information from its own people.

involving the military would be the first prong—whether it possesses discretion under the relevant statute.<sup>305</sup>

### 5. Complexity and Current State of the Discretionary Function Exception

The discretionary function exception is arguably the most litigated provision of the FTCA.<sup>306</sup> However, no article or study may be more convincing of the discretionary function exception's complexity than the twenty-year tribulation of Gail Merchant Irving. Irving sued inspectors at the Occupational Safety and Health Administration (OSHA) for their negligent inspection of her workplace.<sup>307</sup> The suit arose in 1979 when Irving's hair was sucked into the high-speed rotation of a shoemaking machine's drive shaft.<sup>308</sup> Consequently, she suffered "grievous" injuries.<sup>309</sup>

After the accident, Irving sued the government and survived the government's initial motion to dismiss based on the discretionary function exception.<sup>310</sup> The full trial then commenced and lasted only three days.<sup>311</sup> After waiting for three years to issue an opinion, the U.S. District Court for the New Hampshire (District Court) reversed itself by holding that the discretionary function exception barred Irving's claim.<sup>312</sup> After three more years, the U.S. Court of Appeals for the First Circuit remanded the case back to the District Court in light of the Supreme Court's judgment in *Berkovitz*.<sup>313</sup> The District Court ruled that *Berkovitz* did not change the result,<sup>314</sup> but the First Circuit later vacated and remanded again concluding that further

305. This assertion assumes that counsel for the government could make a legitimate argument that the military desire for secrecy could be weighed against the public's thirst for information about military operations.

306. See *Payton v. United States*, 679 F.2d 475, 479 (5th Cir. 1982) ("[t]his omission [of the discretionary function exception's definition] is understandable in light of the fact that the courts have struggled for nearly three decades to provide such a definition, with limited success."); LESTER S. JAYSON, 2 *HANDLING FEDERAL TORT CLAIMS* § 248.01 at 12-23 (1986) (asserting that "[p]robably no other provision of the Federal Tort Claims Act has been regarded as more difficult to understand or to apply"); Zillman, *supra* note 28, at 367 (analyzing over 100 cases involving the discretionary function exception of the FTCA); D. Scott Barash, Comment, *The Discretionary Function Exception and Mandatory Regulations*, 54 U. CHI. L. REV. 1300, 1300-01 n.3 (1987) (arguing that the discretionary function exception is the most complex provision of the FTCA).

307. See *Irving v. United States*, 162 F.3d 154, 157 (1st Cir. 1998).

308. See *id.* at 157-58. Her hair was actually sucked into the machine due to the vacuum created by the forces of the rotating machine. See *id.*

309. *Id.* at 158.

310. See *Irving v. United States*, 532 F. Supp. 840, 845 (D.N.H. 1982).

311. See *Irving*, 162 F.3d at 159. The full trial began in 1985. See *id.*

312. See *Irving v. United States*, No. Civ. C81-501-SD, slip. op. (D.N.H. Jan. 27, 1988).

313. See *Irving v. United States*, 867 F.2d 606 (1st Cir. 1988).

314. See *Irving*, 162 F.3d at 158.

analysis was necessary to determine if the inspectors had policy-level discretion.<sup>315</sup> After four more years, the District Court disregarded the discretionary function exception altogether and ruled for the United States on the merits.<sup>316</sup> A third panel of the First Circuit vacated and remanded this judgment.<sup>317</sup> The District Court then concluded that OSHA did not have discretion and held that the United States was liable and awarded \$1,000,000 to Irving.<sup>318</sup> A divided panel of the First Circuit affirmed the \$1,000,000 judgment on April 8, 1998.<sup>319</sup>

However, the First Circuit sitting en banc reversed itself on December 18, 1998 by holding that the discretionary function exception had always barred Irving's claim.<sup>320</sup> In writing for the majority, Judge Selya stated that "we regret only the plaintiff's unfortunate accident and the added suffering she has endured due to the inordinate delay and erratic decisionmaking that spawned two decades of needlessly protracted litigation."<sup>321</sup> Needless to say, the most recent *Irving* decision demonstrates that even after fifty years,<sup>322</sup> courts still have difficulty interpreting the FTCA's discretionary function exception.

#### V. APPLICATION OF THE DISCRETIONARY FUNCTION EXCEPTION TO GPS OPERATION

An analysis of whether the discretionary function exception protects the United States for the negligent operation of the GPS

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315. *Irving v. United States*, 909 F.2d 598, 603-05 (1st Cir. 1990).

316. *See Irving*, 162 F.3d at 159.

317. *See Irving v. United States*, 49 F.3d 830 (1st Cir. 1995).

318. *See Irving v. United States*, 942 F. Supp. 1483 (D.N.H. 1996)

319. *See Irving*, 162 F.3d at 155.

320. *See id.* at 169. In reaching this decision, the court looked extensively at testimony from the trial court in 1985. *See id.* at 166-67. The court applied a straightforward *Berkovitz* test. *See id.* at 162-69. First, it determined that the OSHA regulations and guidelines gave the inspectors the necessary discretion when examining the machines. *See id.* Second, once the discretion was found, it presumed that broad policy considerations barred a suit under the FTCA. *See id.* But even without the presumption, the court concluded that the broad safety concerns made by the OSHA inspectors, such as layout of the facility, health and safety records, and working conditions, satisfied the second prong of the *Berkovitz* test. *See id.*

321. *See id.* at 169. One wonders how needless it was after twenty years, ten separate opinions, and five appeals to the First Circuit. *See supra* notes 310-20 and accompanying text. During its five encounters with Irving, the First Circuit vacated the district court three times and ruled that the discretionary function exception barred the suit but then reversed itself eight months later. *See id.*

322. The discretionary function exception was part of the original FTCA passed on August 2, 1946 as Title IV of the Legislative Reorganization Act, 60 Stat. 842. *See* 28 U.S.C. § 2680(a) (1946).

should begin by applying the Supreme Court's *Berkovitz* test.<sup>323</sup> Before proceeding with the legal analysis, it bears repeating how the United States could perform a negligent act with the GPS to expose itself to potential FTCA liability. The negligent GPS act would most likely mirror the 1992 ephemeris constant upload error by the Master Control Station (MCS).<sup>324</sup> This mistake resulted in a positioning error of over three hundred meters.<sup>325</sup> Even with an error of only three hundred meters, significant physical and economic harm could occur.<sup>326</sup> Thus, an error similar to the one in 1992 could cause numerous lawsuits against the United States for negligent GPS operation.<sup>327</sup>

Assuming an ephemeris data upload error, whether the government can receive discretionary function protection depends on the two-pronged *Berkovitz* test. However, the first problem with a legal analysis of the GPS involves the same concern that the Third Circuit illustrated in *Fisher Bros.*<sup>328</sup>—which decision in a string of judgments deserves the *Berkovitz* test. In a GPS context, the government would assert that, similar to the FDA Commissioner in *Fisher Bros.*, the decision leading to the allegedly negligent upload was the decision of high government officials and not of a lowly computer operator.<sup>329</sup>

323. As previously mentioned, there is some debate concerning the name of the Supreme Court's two-pronged test. See *supra* notes 179 and 220. The Court first delineated the two prongs in *Berkovitz*. See *supra* notes 179 and 220. However, the confusion stems from the fact that the second prong of the test relies extensively on language in *United States v. Varig*. See *supra* note 183 and accompanying text. Furthermore, the Court clarified the two-pronged test even further in *Gaubert*. See *supra* notes 201-12 and accompanying text. Consequently, scholars have referred to the same two-pronged test as the *Varig/Berkovitz/Gaubert* test or some combination thereof.

324. See Alsip, *supra* note 12, at 1-2.

325. See *id.*

326. A number of GPS users would be significantly harmed with an error of 300 meters. See *supra* note 71 and accompanying text. Airplanes and ships need accuracy far greater than 300 meters to safely land or dock in harbor. See *supra* note 71 and accompanying text. Furthermore, a building constructed 300 meters away from its intended location could also incur liability for the tort of trespass. See LOGSDON, *supra* note 1, at 270 (explaining that some developmental uses of GPS technology require precision of several feet).

327. The reason numerous lawsuits were not brought in 1992 is twofold. First, in 1992, fewer civilians used GPS technology. Therefore, most of the users were the military or the Coast Guard. Second, the presence of dGPS technology in high GPS traffic areas such as harbors would correct for any GPS errors. See Radionavigation Plan, *supra* note 5, at 3-10.

328. See *Fisher Bros. Sales, Inc. v. United States*, 46 F.3d 279 (3d Cir. 1995) (holding that the discretionary function exception bars a claim against the FDA Commissioner).

329. See *id.* In *Fisher Bros.*, the court held that the decision to be analyzed was the FDA Commissioner's judgment and not the underlying judgments concerning the testing of the possibly poisoned grapes. See *id.* at 288; see also *supra* notes 222-38 and accompanying text (explaining *Fisher Bros.*). The Master

However, the United States will probably not succeed because the decision that caused the negligent upload did not emanate from a senior government policy official.<sup>330</sup> Unlike *Fisher Bros.*, where the FDA Commissioner based his decision upon specific test results, a GPS upload is not based upon an underlying judgment by another person. Consequently, the GPS case more accurately parallels *Varig*, where FAA inspectors failed to properly inspect an airplane.<sup>331</sup> In *Varig*, the Supreme Court analyzed the decision of the inspectors and not the larger governing policy of the FAA.<sup>332</sup> Thus, the *Berkovitz* test should be applied to the judgment of the Space Command Operators at the MCS who actually upload the data.<sup>333</sup>

Under the first prong of the *Berkovitz* analysis, one must determine if the government employee has the ability to exercise discretion in performing her duty.<sup>334</sup> If the employee does not possess judgment or choice, the discretionary function exception does not bar the claim.<sup>335</sup> The text of the governing regulation should first be analyzed to determine if the employee has discretion.<sup>336</sup> The U.S. Coast Guard procedures specify “[to] update the Nav message [regarding ephemeris data] once a day and TRY not to exceed 28 hours and never 48 hours.”<sup>337</sup>

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Control Station that updates the ephemeris data resides at Schriver AFB in Colorado Springs, Colorado. See *Navstar Global Positioning System*, *supra* note 86.

330. While the Air Force has not confirmed this assumption, the author believes it to be an accurate assumption of fact. Ephemeris data must be relayed to the satellites via mundane computer commands. Therefore, an Air Force General (the most likely counterpart to the FDA Commissioner found in *Fisher Bros.*) would not be the person sitting at the terminal updating the satellites.

331. See *supra* notes 173-76 and accompanying text.

332. 467 U.S. 797, 799-803 (1984).

333. The Supreme Court’s *Berkovitz* decision directed lower courts to employ the two-pronged *Berkovitz* test to analyze discretionary function cases. While this Note argues that some courts have altered the exception to protect the government from liability, all of the courts have based their reasoning on this two-pronged test. Therefore, it only makes sense to analyze the government’s liability for GPS management under the general framework of the *Berkovitz* test.

334. See *Berkovitz v. United States*, 486 U.S. 531, 538 (1988).

335. This assumes that the government violated a statute, regulation, policy, or general guideline. Twenty-eight U.S.C. § 2680(a) states that an employee abiding by a regulation is protected regardless of whether the “statute or regulation be valid.” 28 U.S.C. § 2680(a) (1997). Therefore, a plaintiff cannot sue the government because the employee abided by the government policy, but the plaintiff does not agree with the policy. See *id.*; see also *Berkovitz*, 486 U.S. at 536-38.

336. “[I]t will most often be true that the general aims and policies of the controlling statute will be evident from the text.” *United States v. Gaubert*, 499 U.S. 315, 324 (1991).

337. Electronic mail from Dale Casey, TC2 U.S. Coast Guard Navigation Center, to author (Mar. 10, 1999) (on file with the author) (emphasis in original). A Nav message concerning ephemeris data informs civilians when the GPS’s



Assuming that this policy mirrors the policies regulating the Space Command's ephemeris data uploads to the GPS satellites, the regulation grants government employees discretion. Therefore, a court would proceed to the second prong of the *Berkovitz* test. However, it is also possible that the relevant regulations mandate a strict course of conduct that leaves no discretion in the hands of the GPS operator. Consequently, the discretionary function exception would not apply to the suit, and the plaintiff could continue her claim under the FTCA.<sup>338</sup>

Assuming that the regulation grants the employee discretion, the second prong of the *Berkovitz* test requires a court to determine whether the discretion was the kind that Congress intended to protect.<sup>339</sup> As stated by *Gaubert*, there is a presumption of finding the second prong of *Berkovitz* satisfied once discretion has been found in the first prong.<sup>340</sup> While this presumption of finding broad policy considerations exists, it could be rebutted in a GPS lawsuit.<sup>341</sup> Three questions must be answered to determine if the government can receive discretionary function exception protection by satisfying *Berkovitz's* second prong: (1) Does the decision involve broad

satellites have received the update of their ephemeris data. *See id.* The guidelines used by the Air Force Space Command to update the ephemeris data of the GPS are classified even in light of a Freedom of Information Act Request. *See* H.R. REP. 105-37, at 14-16 (1997). However, the author acquired all of the available unclassified information from the Interface Control Document of the Navstar GPS (ICD-GPS-200), which was requested via electronic mail from the United States Coast Guard's Navigation Center at [webmaster@smtp.navcen.uscg.mil](mailto:webmaster@smtp.navcen.uscg.mil). While the ICD-GPS-200 document does not detail the procedures required to update the ephemeris constant data of the GPS satellites, it provides some of the specifications for the interface between the Air Force Space Command and the current Block II satellites in the GPS constellation. The existence of these concrete specifications illustrate that the necessary guidelines for updating the ephemeris constant may not leave too much room for discretion by the Air Force Space Command operator. Consequently, the first prong of the *Berkovitz* test may not be satisfied.

338. *See Gaubert*, 499 U.S. at 324. Without the discretionary function exception to bar the claim, a plaintiff could sue the government under relevant state tort law. *See* 28 U.S.C. § 2680(a) (1997). However, one should remember that the FTCA only exposes the United States to liability of a private citizen in similar circumstances. *See supra* note 260 and accompanying text. Consequently, a plaintiff suing the United States for negligent GPS operation would still have to win under tort law (proving the elements of duty, breach, cause, and damage). This Note does not attempt to analyze whether the United States would be liable under tort law for negligent GPS operation but analyzes only if the FTCA would permit such a suit to proceed.

339. *See Varig*, 486 U.S. at 536. To satisfy the second prong, the judgment must be grounded in "social, economic and political policy." *Id.* at 536-37.

340. *See Gaubert*, 499 U.S. at 324.

341. *See supra* notes 252-60 and accompanying text (agreeing with the Supreme Court that the presumption is rebuttable). *But see* notes 244-50 and accompanying text (asserting that the presumption is not rebuttable).

public policy considerations? (2) Who makes the decision? (3) Is GPS operation a “unique government function”?

A. *Does the Decision Involve Broad Public Policy Considerations?*

First, the GPS hypothetical differs from *Varig* in that a GPS operator’s decision to upload the ephemeris data may not implicate broad policy implications. A GPS operator merely follows a prescribed procedure to update the satellites. By contrast, the FAA inspectors in *Varig* had to determine the amount of time spent on each inspection in light of the lack of inspectors compared to the number of airplanes and the amount of deference given to a third-party, the airplane manufacturer.<sup>342</sup> A GPS operator does not have to balance similar policy concerns. Since the Court found that the discretionary function exception applied in *Varig*, it appears that the discretionary function exception may not protect GPS operators, who do not consider broad “social, economic and political judgments” required by *Berkovitz’s* second prong.<sup>343</sup>

The above argument makes sense after examining *Gaubert*.<sup>344</sup> In *Gaubert*, the Court found that the discretionary function exception immunized the government because the FHLBB had to protect the savings and loan industry at large and ensure consumer confidence in the banking industry.<sup>345</sup> Such concerns involve the necessary broad policy concerns to satisfy *Berkovitz’s* second prong. A GPS operator, sitting in Colorado electronically updating the ephemeris data, would probably not think about public issues. However, one could argue that the update of the ephemeris data does in fact ensure public confidence because GPS users realize the importance of the ephemeris data. The fact that the United States operates a twenty-four hour GPS Navigation Service to alert users to defects in the system justifies the idea that the GPS operators do insure the public’s confidence in a reliable navigational tool.<sup>346</sup>

B. *Who Makes the Decision?*

The source of the allegedly negligent decision could also determine the applicability of the discretionary function exception to GPS operation by altering the answer to *Berkovitz’s* second prong. Although never stated in a Supreme Court majority opinion, the status of the decisionmaker—especially after the

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342. See *supra* notes 174-77 and accompanying text.

343. See *supra* notes 174-77 and accompanying text; *Varig*, 486 U.S. at 536-37.

344. 499 U.S. 315 (1991).

345. See *supra* notes 208-09 and accompanying text.

346. See *supra* note 1 and accompanying text.

Third Circuit's decision in *Fisher Bros.*—may affect a court's decision. In his *Gaubert* concurrence, Justice Scalia argued that the relationship between the "status of the actor" and the amount of discretion could be considered as evidence to satisfy *Berkovitz's* second prong.<sup>347</sup> The level of the decisionmaker is directly proportional to the strength of the presumption that the decision involved public policy concerns.<sup>348</sup> Four years after Scalia wrote his opinion in *Berkovitz*, the First Circuit's majority in *Fisher Bros.* relied upon Scalia's "status of the actor" argument to hold that the discretionary function exception protected a decision made by the FDA Commissioner.<sup>349</sup> Therefore, the likelihood of a court using the "status of the actor" inquiry may have substantially increased since the Supreme Court noted in *Varig* that the "nature of the conduct, not the status of the actor" determines the discretionary function exception.<sup>350</sup>

In a GPS lawsuit, the decisionmaker that negligently uploads the false ephemeris data would be a lower-level Air Force officer or enlisted person.<sup>351</sup> Unlike the FDA Commissioner in *Fisher Bros.* who banned the importation of Chilean fruit, a lower-level Air Force operator does not possess the authority to set government policy.<sup>352</sup> If a court deciding the GPS lawsuit were to apply Scalia's "status of the actor" argument in *Berkovitz*, the discretion would not be grounded in "economic, political, or social policy."<sup>353</sup> *Berkovitz's* second prong, therefore, would not be satisfied, and the discretionary function exception would not protect the government's negligent GPS operation.

### C. Is GPS Operation a "Unique Government Function"?

Even if the government cannot receive the protection of the discretionary function exception through a traditional *Berkovitz* test, it may still qualify under the exception because of the

347. *Gaubert*, 499 U.S. at 182; see also *supra* notes 213-19 and accompanying text.

348. See *Gaubert*, 499 U.S. at 182.

349. See *Fisher Bros. Sales, Inc. v. United States*, 46 F.3d 279, 285 (1995); see also *supra* notes 227-30 and accompanying text.

350. *United States v. Varig Airlines*, 467 U.S. 797, 813 (1984). This is a logical assumption given that the Supreme Court seems to have changed its policy and the Third Circuit has agreed with the Court's change on examining the "status of the actor" as evidence of broad public policy discretion. See *Fisher Bros.*, 46 F.3d at 285; see also *supra* notes 227-30 and accompanying text. While a "status of the actor" inquiry may not be dispositive, at least it may be considered. See *Fisher Bros.*, 46 F.3d at 285; see also *supra* notes 227-30 and accompanying text.

351. See *supra* note 330 and accompanying text.

352. See *Fisher Bros.*, 46 F.3d at 285; *supra* notes 227-32 and accompanying text.

353. *Gaubert*, 499 U.S. at 322; *supra* notes 213-15 and accompanying text (explaining Justice Scalia's argument).

evolving “unique government function” doctrine within *Berkovitz’s* second prong. Although the Supreme Court has never explicitly protected “unique government functions,” the circuits have carved out this safe haven by referring to the Supreme Court in two contexts. First, the circuits have gained legitimacy by inserting the “unique government function analysis” under the *Berkovitz’s* second prong instead of altogether disregarding the accepted *Berkovitz* test.<sup>354</sup> Second, the circuits have used the Supreme Court cases of *Boyle* and *Varig* as justifications for their analysis.<sup>355</sup> Thus, the circuits have not unilaterally created this special protection but have relied, at least indirectly, on justification from the nation’s highest court. Therefore, a federal court examining a GPS lawsuit might be more willing to apply circuit cases such as *Faber*, *Hughes*, *Black Hills*, and *Crumpton* since they do rely on Supreme Court precedent.

Although *Faber* did not protect the government for its failure to post no diving signs, the court concluded that it would immunize the government in unusual circumstances requiring “broad, policymaking activities.”<sup>356</sup> While the GPS is a powerful tool, it also creates worldwide reliance on the United States.<sup>357</sup> It would appear, therefore, that the GPS is unusual in that its potential impact on foreign policy of the United States would implicate “broad, policymaking activities.”<sup>358</sup>

Furthermore, in *Hughes*, the Eleventh Circuit applied the discretionary function exception because Congress in part intended the Postal Service to provide the unique function of servicing the country and binding it together through the mail.<sup>359</sup> President Reagan opened the GPS in 1983 to civilians to prevent future airplanes from straying off course, and thirteen years later, President Clinton stated that he desired to create the GNSS, an international network relying significantly on GPS, to bind the world together.<sup>360</sup> Therefore, the GPS also possesses the

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354. See *supra* Part IV.B.3-4.

355. See *supra* notes 275, 290-91 and accompanying text.

356. *Faber v. United States*, 56 F.3d 1122, 1125 (9th Cir. 1995); see *supra* notes 272-75 and accompanying text.

357. See *supra* Part I.

358. *Faber*, 56 F.3d at 1125. The GPS hypothetical also mirrors the other Ninth Circuit case, *Lesoeur v. United States*. See 21 F.3d 965 (9th Cir. 1994). In *Lesoeur*, the court found that *Berkovitz’s* second prong (broad public policy) was satisfied because the Hualapi Indian Tribe’s operation of the rafting tours affected the Forest Service’s decision not to post warning signs. See *id.* at 970. This mirrors GPS because GPS affects sovereign nations and necessarily implicates foreign policy of the United States. Likewise, the *Lesoeur* court found the U.S. government’s respect for the Hualapi’s sovereignty as sufficient evidence of a decision grounded in public policy. See *id.*

359. See *supra* notes 276-80 and accompanying text.

360. See *supra* notes 47, 78 and accompanying text.

characteristics of unification that forced the Eleventh Circuit to immunize the Postal Service because of its unique government function.<sup>361</sup>

Protecting the government for negligent GPS operation makes even more sense after examining *Black Hills* and *Crumpton*, in which the plaintiffs sued the U.S. military under the FTCA.<sup>362</sup> After all, the GPS is inherently a military function since it receives funding from the Department of Defense, employs Air Force Navstar satellites, and is managed by the Air Force.<sup>363</sup> In *Black Hills*, the Court of Appeals relied on the need for the military to continue with its unique function of combat effectiveness.<sup>364</sup> While the military does provide GPS to civilians, it only grants the public access to the degraded SPS.<sup>365</sup> It maintains the more precise PPS to insure that national defense is not compromised.<sup>366</sup> Consequently, facing suits by civilians could realistically impair combat readiness if the military has to weaken its defenses to compensate for liability. Since *Black Hills* stated that the need to continue missile testing was a broad public policy consideration, another court could realistically hold that altering the military's primary navigation tool would generate broad public policy ramifications.<sup>367</sup>

Meanwhile, the military's need for secrecy in its GPS operation could create enough of a "unique government function" to receive immunization through the discretionary function exception. Exposure to liability for the GPS could necessitate revealing the technical aspects of how GPS works and thus enable foreign countries or hackers to interrupt the signal. One of the reasons for creating the GNSS is its resistance to jamming.<sup>368</sup> If resistance to jamming precipitates the U.S. government to set national policy and unify with a former enemy, then GPS operation involves broad public policy concerns.

Furthermore, the *Crumpton* court found *Berkovitz's* second prong satisfied because of the military's need to balance secrecy and disclosure with respect to one person.<sup>369</sup> Therefore, a court would most likely hold that the need to protect the GPS's secrecy from the rest of the world involves broad public policy considerations. The unique role that the military plays in the GPS and the national defense ramifications of holding the U.S.

361. See *supra* notes 276-80 and accompanying text.

362. See *supra* Part IV.B.4.

363. See *supra* Parts I & II.

364. See *supra* notes 288-93 and accompanying text.

365. See *supra* Part II.B.

366. See *supra* Part II.B.

367. See *supra* notes 288-93 and accompanying text.

368. See *supra* note 80 and accompanying text.

369. See *supra* note 300 and accompanying text.

liable for the GPS could force a court to find the *Berkovitz* test satisfied. Thus, the court would hold that the discretionary function exception protects the government.

## VI. CONCLUSION

In order for the United States to be liable under the FTCA for the negligent operation of the GPS, a plaintiff must overcome two hurdles. First, the plaintiff must prove that the foreign country exception of the FTCA does not immunize the United States from liability. This potential obstacle should not serve as too high of a barrier since the alleged negligence would have to occur in the United States, and Supreme Court and U.S. Courts of Appeals caselaw state that the locus of the alleged negligence determines the foreign country exception's applicability.<sup>370</sup> Nevertheless, the Supreme Court's decision in *Smith v. United States* complicates the issue because it immunizes the United States from liability if a court were to determine that the alleged negligence emanates from Outer Space instead of the Master Control Station in the United States.<sup>371</sup> Consequently, a plaintiff, now faced with *Smith's* holding, will probably need to present more technical evidence in order to demonstrate how personnel in the United States control the GPS.<sup>372</sup>

The second and more cumbersome barrier to FTCA liability is the FTCA's discretionary function exception. To overcome this exception, a plaintiff must tame the twin-headed dragon of Supreme Court caselaw—the *Berkovitz* test. Assuming that discretion exists to satisfy *Berkovitz's* first prong, the battle would then be waged under *Berkovitz's* second prong. After examining the three factors raised in the GPS hypothetical, it appears that the first two factors—whether the operator employed broad policy concerns, and who it was that made the decision—make a case for not applying the discretionary function exception.<sup>373</sup> However, the unique government function argument makes a case for applying the discretionary function exception.<sup>374</sup> While a relevant hypothetical court will most likely apply the framework of *Berkovitz's* two-pronged test, the result will turn on what factor

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370. See *supra* Part III.

371. See *supra* notes 126-32 and accompanying text.

372. See *supra* notes 126-32 and accompanying text. The technical evidence would include how the GPS actually operates. See *supra* Part II.D (explaining how an incorrect ephemeris constant upload error emanates from the ground control operator stationed at the MCS instead of a GPS satellite should be sufficient evidence).

373. See *supra* Part V.A-B.

374. See *supra* Part V.C.

the court emphasizes under the test, especially *Berkovitz's* second prong. Nevertheless, the variability of courts deciding discretionary function exception cases makes it even more difficult to predict a particular court's holding.<sup>375</sup>

Therefore, it may be in Congress' best interest to take this issue away from the courts. After all, the FTCA not only includes the discretionary function exception in § 2680(a) but also four additional exceptions to U.S. liability under the FTCA. Section 2680(b) exempts "[a]ny claim arising out of the loss, miscarriage, or negligent transmission of letters or postal matter."<sup>376</sup> Section 2680(i) exempts "[a]ny claim for damages caused by the fiscal operations of the Treasury or the regulation of the monetary system."<sup>377</sup> Section 2680(l) exempts "[a]ny claim arising from the activities of the Tennessee Valley Authority."<sup>378</sup> Finally, § 2680(m) exempts "[a]ny claim arising from the activities of the Panama Canal Company."<sup>379</sup>

When the Congressional conference committee considered these exceptions to the FTCA in 1942, they stated that "certain classes of torts are to be excepted from the grant of the right to sue . . . [because they] . . . relate to certain governmental activities which should be free from the threat of damage suits."<sup>380</sup> At that time, Congress believed that the government performed certain functions that the FTCA should not expose to liability.<sup>381</sup> For example, Congress did not desire the mail system as a whole to be interrupted or impaired because of its exposure to civil liability.<sup>382</sup> Therefore, Congress believed that the Postal Service was of such high value to the successful operation of the country that it should be immune from the FTCA.<sup>383</sup>

In 1942, no one could reasonably expect Congress to foresee the development of the GPS. However, the GPS has become an invaluable tool with more than a million people depending on it every day for not only their livelihood but also their safety. Like the Postal Service, the GPS is fast becoming a tool that not only

375. As can be seen by the discussion of the *Irving* case, there is no science or absolute predictive power when it comes to discretionary function litigation. See *supra* Part IV.B.5.

376. 28 U.S.C. § 2680(a) (1994).

377. *Id.* § 2680(i) (1994).

378. *Id.* § 2680(l) (1994).

379. *Id.* § 2680(m) (1994).

380. H.R. REP. NO. 77-2245, at 5, 10 (1942).

381. In its published hearings, Congress did not specifically list its reasons or motives for excluding these particular activities except that they felt that they should be exempted from the FTCA. See *id.* Therefore, the author believes it is a safe assumption to argue that it turned on the specific nature of these services.

382. See *id.*; *supra* note 381 and accompanying text.

383. See H.R. REP. NO. 77-2245, at 5, 10; *supra* note 381 and accompanying text.

the United States but also the world needs to continue its smooth operation and success.<sup>384</sup> Therefore, Congress should consider adding another exception to the FTCA exempting any claim arising out of the activities and operation of the GPS. If Congress does not, the GPS may succumb to litigation and lose its effectiveness.<sup>385</sup> Thus, a revolutionary device that increases productivity, efficiency, knowledge, and safety may be lost.

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384. If the United States had to abolish the GPS, many of the military's weapons would not function (i.e. SLAMs, Tomahawks, and nuclear missile submarines). *See supra* Parts I & II. Civilians from around the globe would suffer serious harm as many people rely on GPS every day (i.e. ships for locating their position and the landing of airplanes). *See supra* Parts I & II.

385. Although the GPS is becoming more popular every year, it is still a relatively new and technologically complex system. *See supra* Parts I & II. Therefore, subjecting GPS to liability so early in its development runs the risk of impairing the growth and refinement of this incredibly powerful tool.

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