

# LOCATIONAL PRIVACY IN THE SKY: PROTECTING THE MOVEMENTS OF NON- COMMERCIAL AIRCRAFT FROM PUBLIC VIEW

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## I. INTRODUCTION

Imagine a world where everywhere you go—to your home, to your job, to pick up your children, to visit your friends, to go shopping—was recorded and stored in a computer database. The database would also document what time you left, what time you arrived, your route of travel, and if you were still en route, where you currently are. The concept is frightening. Scholars have dubbed the protection of this information “locational privacy.”<sup>1</sup> Locational information can be obtained from a cell phone, a global positioning system, an automobile toll transponder, and even your actions via social networking websites.<sup>2</sup> Fortunately, this data is usually protected from access by constitutional and statutory provisions, or one’s own personal election.<sup>3</sup>

In one situation though, locational data is published on the Internet, and available for the world to view.<sup>4</sup> Pilots and passengers of general aviation aircraft board airplanes every day, for both personal and business needs. General aviation, encompassing most types of flying outside of regularly-scheduled airline operations, offers users the ability to travel quickly and

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1. Andrew J. Blumberg & Peter Eckersley, *On Locational Privacy, and How to Avoid Losing it Forever*, ELECTRONIC FRONTIER FOUNDATION (Aug. 3, 2009), <http://www.eff.org/wp/locational-privacy>.

2. *Id.*

3. See U.S. CONST. amend. IV. Additionally, electronic devices and social networking websites will allow users to prevent reporting of locational information, or restrict who can obtain such information. See, e.g., *Sharing and Finding You on Facebook*, FACEBOOK, <http://www.facebook.com/about/privacy/your-info-on-fb#controlprofile> (last visited Mar. 14, 2012).

4. See *Flight Tracker / Flight Status*, FLIGHTAWARE, <http://www.flightaware.com> (last visited Jan. 14, 2012).

efficiently all over the country.<sup>5</sup> However, armed with an aircraft registration number, any member of the public can go online and find most, if not all flights, that aircraft has made, including current position.<sup>6</sup> Sometimes, this locational history can stretch back over twelve years.<sup>7</sup> In order to protect this data, the Federal Aviation Administration (“FAA”) partnered with the National Business Aviation Association (“NBAA”) to develop the Block Aircraft Registration Request (“BARR”) program.<sup>8</sup> Despite the previous policy, in mid-2011, the FAA decided to dismantle BARR and make most locational data available online.<sup>9</sup>

Today, BARR has been re-enacted under a congressional appropriations act, but its usefulness is temporary.<sup>10</sup> The locational blocking was only guaranteed until September 30, 2012.<sup>11</sup> Because the locational data alone does not reveal the pilot’s or passengers’ names or additional identifying private information, existing privacy laws do not protect aircraft tracking data.<sup>12</sup> Yet, additional outside searching can easily reveal this personal information, and when combined with flight tracking data, one can uncover a full picture of the activities of private individuals. Therefore, Congress must act to create a permanent legislative solution to protect the privacy of the general aviation population.

Part I of this Comment introduces the issue of locational privacy, and how pilots’ personal aircraft movements are being published on the Internet without sufficient privacy protection. Part II discusses the aviation industry, its functionality, and the current state of aviation-related locational privacy law. Part III argues that while flight tracking data is not of a type

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5. See FED. AVIATION ADMIN., ADMINISTRATOR’S FACT BOOK 19 (2011), available at [http://www.faa.gov/about/office\\_org/headquarters\\_offices/aba/admin\\_factbook/media/201103.pdf](http://www.faa.gov/about/office_org/headquarters_offices/aba/admin_factbook/media/201103.pdf) [hereinafter ADM’RS FACT BOOK].

6. See *Flight Tracker/Flight Status*, supra note 4.

7. See, e.g., N21705, FLIGHTAWARE, <http://flightaware.com/live/flight/N21705> (last visited Jan. 14, 2012). In addition, Internet users can search the FAA registration database to obtain aircraft registration numbers and contact information. *FAA Registry*, FED. AVIATION ADMIN., <http://registry.faa.gov/aircraftinquiry/> (last visited Jan. 14, 2012).

8. See Access to Aircraft Situation Display (ASDI) and National Airspace System Status Information (NASSI), 76 Fed. Reg. 32,258-02, 32,259 (proposed June 3, 2011) (to be implemented under revised Memorandum of Agreement with Direct Subscribers); *Block Aircraft Registration Request (BARR) Program*, NAT’L BUS. AVIATION ASS’N, <http://www.nbaa.org/ops/security/barr/> (last visited Jan. 14, 2012).

9. Aircraft Situation Display (ASDI) and National Airspace System Status Information (NASSI), 76 Fed. Reg. at 32,259.

10. Consolidated and Further Continuing Appropriations Act, Pub. L. No. 112-55, § 119A, 125 Stat. 552 (2011).

11. Paul Lowe, *Congress Reinstates Barr Program*, AVIATION INT’L NEWS (Jan. 4, 2012, 1:10 AM), <http://www.ainonline.com/comment/491>.

12. See, e.g., 5 U.S.C. § 552(b) (2006 & Supp. IV 2010).

that is historically thought of as private, the evolution of technology and availability of the data to the public make it worthy of being protected. Congress must correct this privacy violation with a permanent solution, one which allows pilots and aircraft owners to opt-out of publication of their tracking records. The Comment concludes that proposed legislation introduced before the 112th Congress is sufficient to provide locational privacy to aircraft movements, but leaders should act quickly to ensure protection does not lapse once again.

## II. HISTORICAL BACKGROUND

### *a. The Aviation Industry*

*“A mile of highway gets you one mile, but a mile of runway can take you anywhere.”*<sup>13</sup>

Since Orville and Wilbur Wright took flight in the very first airplane in 1903, aviation has become a major factor in the everyday lives of Americans. Aviation is used to transport mail and cargo,<sup>14</sup> to visit loved ones,<sup>15</sup> to fertilize crops,<sup>16</sup> and to provide emergency support in times of crisis—just to name a few.<sup>17</sup> Aviation is a 24-hour-a-day, 7-day-a-week, 365-day-a-year industry, comprising 5.2 percent of the United States gross domestic product (GDP).<sup>18</sup>

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13. Aircraft Owners & Pilots Ass’n, *GA: A Vital Tool in Our Economy*, GEN. AVIATION SERVES AM. (last visited Jan. 14, 2012), <http://web.archive.org/web/20110620060224/http://gaservesamerica.com/learn/economy.html> [hereinafter *Economy*] (accessed by searching for General Aviation Serves America in the Internet Archive Index).

14. Aircraft Owners & Pilots Ass’n, *GA: A Vital Tool in Transportation*, GEN. AVIATION SERVES AM. (last visited Jan. 14, 2012), <http://web.archive.org/web/20110620060012/http://gaservesamerica.com/learn/transportation.html> [hereinafter *Transportation*] (accessed by searching for General Aviation Serves America in the Internet Archive Index).

15. *Id.*

16. Aircraft Owners & Pilots Ass’n, *GA: A Vital Tool for Farmers and Ranchers*, GEN. AVIATION SERVES AM. (last visited Jan. 14, 2012), <http://web.archive.org/web/20110620055857/http://gaservesamerica.com/learn/agriculture.html> (accessed by searching for General Aviation Serves America in the Internet Archive Index).

17. Aircraft Owners & Pilots Ass’n, *GA: A Vital Tool in Emergency Services*, GEN. AVIATION SERVES AM. (last visited Jan. 14, 2012), <http://web.archive.org/web/20110620055937/http://gaservesamerica.com/learn/emergencyservices.html> (accessed by searching for General Aviation Serves America in the Internet Archive Index).

18. FED. AVIATION ADMIN., *THE ECONOMIC IMPACT OF CIVIL AVIATION ON THE U.S. ECONOMY 20* (2011), available at [http://www.faa.gov/air\\_traffic/publications/media/FAA\\_Economic\\_Impact\\_Rpt\\_2011.pdf](http://www.faa.gov/air_traffic/publications/media/FAA_Economic_Impact_Rpt_2011.pdf).

At any given time, approximately 5,000 aircraft are operating within United States airspace.<sup>19</sup> In order to manage this ever-increasing volume of air traffic, Congress tasked the Federal Aviation Administration, under the direction of the Department of Transportation, with regulating and controlling American airspace, aircraft, and airmen.<sup>20</sup> The FAA classifies civil aviation in two groups, consisting of commercial aviation and general aviation.<sup>21</sup> Commercial aviation generally includes the major airlines, or “air carriers,” as well as regional commuter airline operations.<sup>22</sup> General aviation comprises nearly all other types of aircraft use, including flights for personal and business purposes on privately-owned airplanes.<sup>23</sup> A network of 5,175 public-use airports keeps both the commercial and general aviation industries operating efficiently.<sup>24</sup>

General aviation, while not as prevalent as commercial airline operations, still represents a large portion of aviation activity.<sup>25</sup> General aviation aircraft includes piston and turbine-powered airplanes, as well as rotorcraft, or helicopters.<sup>26</sup> General aviation aircraft are estimated to have flown 23.8 million hours in 2009,<sup>27</sup> making up more than twenty percent of the aviation component of U.S. GDP.<sup>28</sup> General aviation also produces more than ninety percent of new pilots, through private and university-operated flight schools.<sup>29</sup> General aviation pilots and their passengers use their aircraft for pleasure trips,<sup>30</sup> for volunteer work,<sup>31</sup> and to operate their businesses on a broader geographic scale.<sup>32</sup> For many, general aviation

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19. FED. AVIATION ADMIN., 2009-2013 FLIGHT PLAN 17 (2008), available at [http://www.faa.gov/about/plans\\_reports/media/flight\\_plan\\_2009-2013.pdf](http://www.faa.gov/about/plans_reports/media/flight_plan_2009-2013.pdf).

20. 49 U.S.C. § 40101 (2006).

21. ADM’RS FACT BOOK, *supra* note 5, at 22.

22. *See id.* at 3.

23. *Id.* at 19.

24. *Id.* at 16.

25. *Id.* at 19.

26. *Id.*

27. *Id.*

28. *See Economy*, *supra* note 13.

29. *Id.*

30. *See Transportation*, *supra* note 14.

31. Aircraft Owners & Pilots Ass’n, *Volunteer Organizations*, GEN. AVIATION SERVES AM. (Jan. 14, 2012), <http://web.archive.org/web/20110620060146/http://gaservesamerica.com/involved/volunteer.html> (accessed by searching for General Aviation Services America in the Internet Archive Index).

32. Aircraft Owners & Pilots Ass’n, *GA: A Vital Tool in Business and Industry*, GEN. AVIATION SERVES AM. (Jan. 14, 2012), <http://web.archive.org/web/20110620060456/http://gaservesamerica.com/learn/business.html> (accessed by searching for General Aviation Services America in the Internet Archive Index).

provides the convenience and spontaneity that regularly-scheduled commercial air travel cannot offer.<sup>33</sup>

*b. Flight Rules and Flight Plans*

Aircraft operating within United States airspace must fly within one of two operational structures.<sup>34</sup> These operational structures allow pilots to choose a set of limitations that will most efficiently permit the safe operation of their flight.<sup>35</sup>

The first is visual flight rules, or VFR.<sup>36</sup> VFR flight requires pilots to fly with visual reference to the ground or the local topography.<sup>37</sup> VFR operations necessitate that pilots maintain visual separation from clouds, ground obstructions, and other aircraft.<sup>38</sup> VFR also allows operations within different classes of airspace only when minimum visibility requirements are met.<sup>39</sup> To fly under VFR conditions, pilots generally do not have to meet any flight currency or “recency-of-experience” requirements unless carrying passengers.<sup>40</sup> Further, in many cases, VFR flight does not require speaking with air traffic controllers.<sup>41</sup>

The second operational framework that pilots can utilize is Instrument Flight Rules, or IFR.<sup>42</sup> Flying under IFR is much more controlled.<sup>43</sup> IFR pilots fly solely in reference to the aircraft’s onboard instrumentation.<sup>44</sup> IFR operations require precise planning of the aircraft’s proposed route,

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33. *See id.*

34. *See* 14 C.F.R. § 91.101 (2012).

35. *See id.*

36. *Id.* § 91.155.

37. *See id.*

38. *See id.*

39. *Id.*

40. *See id.* § 61.57(a). “Recency-of-experience” refers to a pilot’s most recent flying activity. The Federal Aviation Regulations require that to carry passengers, a pilot must have made at least three takeoffs and landings during daylight hours, within the preceding 90 days. A similar restriction for carrying passengers after sunset requires three take offs and landings to a full stop during nighttime hours. However, while all pilots are required to complete a flight review every 24 calendar months, as much of the time as a pilot desires between such reviews can be flown alone to build their “recency-of-experience.” *Id.* § 61.56(c).

41. *Cf.* §§ 91.129-131 (outlining situations where communication is required); FED. AVIATION ADMIN., AERONAUTICAL INFORMATION MANUAL ¶ 4-1-17 (2012), available at [http://www.faa.gov/air\\_traffic/publications/ATpubs/AIM/](http://www.faa.gov/air_traffic/publications/ATpubs/AIM/) [hereinafter AERONAUTICAL INFO. MANUAL].

42. *See* 14 C.F.R. § 91.173.

43. *See* §§ 91.169, 91.173, 91.175.

44. FED. AVIATION ADMIN., INSTRUMENT FLYING HANDBOOK G-9 (2008), available at [http://www.faa.gov/library/manuals/aviation/instrument\\_flying\\_handbook/media/FAA-H-8083-15A%20-%20Appendices%20Glossary%20Index.pdf](http://www.faa.gov/library/manuals/aviation/instrument_flying_handbook/media/FAA-H-8083-15A%20-%20Appendices%20Glossary%20Index.pdf).

altitude, and alternative destinations should meteorological conditions deteriorate at the scheduled destination.<sup>45</sup> Air traffic control must issue clearance prior to takeoff on any aircraft operating on an IFR flight plan,<sup>46</sup> and the pilot maintains contact with controllers throughout the duration of the flight.<sup>47</sup> In order to fly under IFR, a pilot must be instrument-rated, requiring additional flight training and successful completion of a practical test.<sup>48</sup> Additionally, due to the accuracy required to maintain flight solely by reference to instruments, pilots flying under IFR must remain “current” by completing several instrument flight procedures within a six-month window.<sup>49</sup>

Despite involving very different methods of flight, VFR and IFR operations have their respective benefits. VFR is the less restrictive of the two, allowing pilots to fly more directly to their destination, putting most of the burden of safe flight on the pilot.<sup>50</sup> Alternatively, IFR requires pilots to fly specific routing,<sup>51</sup> while in communication with air traffic control, but allows flight in a great majority of weather conditions.<sup>52</sup> The pilot-in-command is the final authority for the safe operation of any flight and may choose whether IFR or VFR is appropriate.<sup>53</sup>

Flight plans must be communicated to the FAA when operating under IFR at all times<sup>54</sup> or under VFR while receiving traffic advisories from air traffic control.<sup>55</sup> Flight plans include the following information: (1) aircraft identification number; (2) type of the aircraft . . . (4) location and proposed time of departure; (5) proposed route, cruising altitude (or flight level), and true airspeed at that altitude; (6) point of first intended landing and the estimated elapsed time until over that point; (7) amount of fuel on board; and (8) number of persons in the aircraft.<sup>56</sup> After receiving this

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45. § 91.169.

46. § 91.173.

47. § 91.183.

48. § 61.65.

49. See § 61.57(c).

50. See § 91.155.

51. §§ 91.181, 91.183.

52. See § 135.225.

53. § 91.3.

54. § 91.169(a).

55. § 91.153(a).

56. *Id.* Item (3) was omitted because it refers to the name of the pilot-in-command. While this is included as part of the flight plan, it is not communicated to air traffic control or disseminated with the ASDI feed. The pilot’s name is typically used for search and rescue operations only. Therefore, the pilot’s name is not relayed with tracking data available online and is confusing to this privacy discussion. See AERONAUTICAL INFO. MANUAL, *supra* note 41, ¶¶ 5-1-4(l), -8(g).

information, air traffic control can appropriately provide the pilot with routing information or traffic advisories.<sup>57</sup>

Aircraft on flight plans under IFR or VFR, receiving air traffic control services, must have an operable transponder installed in the aircraft.<sup>58</sup> Transponders are electronic devices connected to an airplane's instruments that typically relay current position and altitude information to air traffic controllers.<sup>59</sup> This information is then displayed to FAA controllers on radar screens to identify the aircraft's relative location to other aircraft in the airspace.<sup>60</sup> Transponders also offer pilots the opportunity to enter specific codes to be transmitted to air traffic controllers in the event of an emergency situation, such as loss of radio contact, hijacking, or other mechanical malfunction.<sup>61</sup>

*c. The FAA Makes Flight and Registration Data Available*

When the Internet gained wide commercial acceptance in the mid-1990s, the FAA realized that the aviation industry could benefit from real-time air traffic control information.<sup>62</sup> In 1997, the FAA began making traffic flow information available to the aviation industry and third party companies.<sup>63</sup> The data provided to subscribing parties included transponder-reported position, call sign (or registration number), airspeed, heading, and flight plan information.<sup>64</sup> The FAA's goal in providing this information to the aviation industry was to help the airspace, and thus commercial airline operations, function more efficiently.<sup>65</sup> This information was termed "Aircraft Situation Display to Industry" ("ASDI").<sup>66</sup>

Third party companies outside the aviation industry wishing to gain access to ASDI data must currently sign a FAA Memorandum of Agreement, which limits what the companies can do with provided

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57. See AERONAUTICAL INFO. MANUAL, *supra* note 41, ¶ 5-5-1.

58. See 14 C.F.R. § 91.215.

59. See AERONAUTICAL INFO. MANUAL, *supra* note 41, ¶ 4-1-20.

60. See *id.*

61. See *id.*

62. See Access to Aircraft Situation Display (ASDI) and National Airspace System Status Information (NASSI), 76 Fed. Reg. 32,258-02, at 32,259 (June 3, 2011) (to be implemented under revised Memorandum of Agreement with Direct Subscribers).

63. *Id.*

64. *Id.* ("Airspeed" refers to the velocity at which an airplane travels through the air. "Heading" is the magnetic course designation (from 1 to 360 degrees) or path in which a plane is moving through the air.).

65. *Id.*

66. *Id.* at 32,259.

information.<sup>67</sup> ASDI data is provided to the aviation industry in “near real time,”<sup>68</sup> while third party subscribers receive the ASDI data on a five-minute delay.<sup>69</sup>

Using ASDI data, third parties have created flight tracking websites such as FlightAware.com.<sup>70</sup> FlightAware allows any member of the public armed with a commercial flight number, FAA aircraft registration number, or even expected arrival airport to track the status of flights currently operating in United States airspace.<sup>71</sup> Inputting a registration number into FlightAware displays the aircraft’s origin and destination airports, routing, time of departure, estimated time of arrival, altitude, airspeed, and present location, if the airplane is airborne.<sup>72</sup> If the aircraft is not currently in flight, FlightAware displays similar details of the most recent flight flown under IFR or VFR with radar traffic advisories.<sup>73</sup> FlightAware users can view four months of history of each airplane’s movements for free, and a history of movements dating back years for a research fee.<sup>74</sup>

According to FlightAware chief executive officer Daniel Baker, the goal in creating the website was to allow tracking of general aviation aircraft in the United States.<sup>75</sup> The site has gained popularity since its inception in 2005, attracting over 3,000,000 monthly users and 2,500 commercial customers.<sup>76</sup>

In order to track general aviation airplanes online, users need the aircraft’s FAA-issued registration number.<sup>77</sup> Every aircraft registered in the United States is required to have a registration number.<sup>78</sup> Every registration number, or “N-Number,” is a three to six character alpha-numeric combination that begins with the letter “N.”<sup>79</sup> Aircraft owners must visibly

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67. *Id.*

68. *Id.*

69. Access to Aircraft Situation Display (ASDI) and National Airspace System Status Information (NASSI), 76 Fed. Reg. 12,209-01, at 12,210 (Mar. 4, 2011) (to be implemented under revised Memorandum of Agreement with Direct Subscribers).

70. See *Flight Tracker / Flight Status*, *supra* note 4.

71. See *id.*

72. See, e.g., *N21705*, *supra* note 7.

73. See *id.*

74. *Id.*

75. Drew Vane, *Tracking Planes as They Fly—An Aviation Enthusiast’s Best Friend*, AIRLINEREPORTER.COM (Nov. 1, 2011, 8:00 AM), <http://www.airlinereporter.com/2011/11/how-to-track-planes-guest-blog/>.

76. *Id.*

77. See *Flight Tracker / Flight Status*, *supra* note 4.

78. 14 C.F.R. § 47.3.

79. § 45.23.



display their respective registration number on the outside of their aircraft.<sup>80</sup> General aviation pilots use their “N-Number” to identify their aircraft via flight plans and communications with air traffic control.<sup>81</sup>

To aid in the location of a registration number, the FAA makes its aircraft registration database available online to the general public.<sup>82</sup> Users of the FAA website can search the registration number database by name, aircraft serial number, registration number, make and model, engine type, dealer, state and county of registration, or territory of registration.<sup>83</sup> After locating a registration record, the database displays the owner’s name and address, the aircraft’s registration number, make and model, and status of the registration.<sup>84</sup> Disclosure of the requester’s personal information or purpose for searching the FAA registration database is not required.<sup>85</sup>

*d. Block Aircraft Registration Request Program*

Once the FAA began to release ASDI data to third party subscribers, aviation interest groups became concerned for the privacy, security, and economic interests of those traveling on general aviation airplanes.<sup>86</sup> The National Business Aviation Association (“NBAA”) led the industry efforts to limit the scope of ASDI information released to the public.<sup>87</sup> The NBAA believed there was an inherent privacy breach in the general public having the ability to follow an airplane’s movements, and thus the movements of its pilots and passengers, around the nation.<sup>88</sup>

In 1997, the National Business Aviation Association, together with the FAA and ASDI subscribers, developed the Block Aircraft Registration Request (“BARR”) program.<sup>89</sup> BARR allowed any airplane owner wishing

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80. *Id.*

81. § 91.153(a); AERONAUTICAL INFO. MANUAL, *supra* note 41, ¶ 4-2-4.

82. *FAA Registry*, *supra* note 7.

83. *Id.*

84. *See, e.g., N-Number Inquiry*, FED. AVIATION ADMIN., [http://registry.faa.gov/aircraftinquiry/NNum\\_Results.aspx?NNumbertxt=21705](http://registry.faa.gov/aircraftinquiry/NNum_Results.aspx?NNumbertxt=21705) (last visited Jan. 14, 2012).

85. *See FAA Registry*, *supra* note 7.

86. *See Access to Aircraft Situation Display (ASDI) and National Airspace System Status Information (NASSI)*, 76 Fed. Reg. 32,258-02, at 32,259 (June 3, 2011) (to be implemented under revised Memorandum of Agreement with Direct Subscribers); *Block Aircraft Registration Request (BARR) Program*, *supra* note 8.

87. *Access to Aircraft Situation Display (ASDI) and National Airspace System Status Information (NASSI)*, 76 Fed. Reg. at 32,259.

88. *See Press Release, Nat’l Bus. Aviation Ass’n, Oral Argument Set for Dec. 2 in Legal Fight to Preserve BARR* (Sept. 27, 2011), *available at* <http://www.nbaa.org/news/pr/2011/20110927-092.php>.

89. *Access to Aircraft Situation Display (ASDI) and National Airspace System Status Information (NASSI)*, 76 Fed. Reg. at 32,259.

to be excluded from the release of ASDI data to submit a request to the NBAA.<sup>90</sup> The NBAA then, monthly, would submit a list of all aircraft to be blocked to the FAA and ASDI subscribers.<sup>91</sup>

A few years later, Congress, realizing the benefits of the BARR program, codified a requirement that ASDI subscribers be able to demonstrate the capability to block ASDI data from public access as requested by the FAA.<sup>92</sup> However, Congress stopped short of requiring the FAA to honor block requests.<sup>93</sup>

The BARR program operated unchallenged until 2008, when news organization Pro Publica filed a Freedom of Information Act (“FOIA”) request with the FAA to obtain copies of the monthly list of blocked registration numbers sent by the NBAA and distributed to ASDI subscribers.<sup>94</sup> The FAA contacted the NBAA for its input before making a final decision on the FOIA request.<sup>95</sup> The NBAA objected to the release of the “block list” because they believed the blocked registration numbers constituted confidential corporate information under a FOIA exemption.<sup>96</sup> Despite the NBAA’s objections, the FAA subsequently determined that the NBAA’s monthly list did not constitute confidential information and decided to honor Pro Publica’s request.<sup>97</sup>

The NBAA filed suit to enjoin the release of the “block list,” and the FAA withheld the FOIA release until a decision was reached in the case.<sup>98</sup> The FAA determined that the aircraft registration numbers themselves did not constitute commercial, and thus confidential, information under the FOIA exemption.<sup>99</sup> Rather, the “block list” was only a “list of numbers . . . unaccompanied by narrative.”<sup>100</sup> Since the district court believed that, armed only with the registration numbers, Pro Publica would have to take

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90. *Id.*

91. *Id.*

92. Wendell H. Ford Aviation Investment and Reform Act for the 21<sup>st</sup> Century, Pub. L. No. 106-181, § 729, 114 Stat. 61 (2000).

93. *See id.*

94. Nat’l Bus. Aviation Ass’n v. Fed. Aviation Admin., 686 F. Supp. 2d 80, 83 (D.D.C. 2010). The Freedom of Information Act is a federal law that allows American citizens to make requests on federal government departments and agencies for the full or partial disclosure of previously unreleased documents and information controlled by the United States government. *Id.* at 85.

95. *Id.*

96. *See id.* at 83, 87-88 (noting that the NBAA cited FOIA exemption 4 as its reasoning for protecting the release of the “block list”).

97. *Id.* at 83.

98. *Id.* at 83-84.

99. *Id.* at 86.

100. *Id.*

further steps to obtain additional private information, the court agreed the “block list” was not commercial confidential information.<sup>101</sup>

Despite mentioning the NBAA concerns that personal privacy of the occupants would also be compromised, the court noted that personal privacy was not a consideration under the FOIA exemption put forth by the NBAA.<sup>102</sup> As a business aviation organization, the NBAA chose to argue the privacy of its member corporations.<sup>103</sup> Therefore, the court ruled that the FAA was correct in allowing the release of the blocked registration number list.<sup>104</sup>

BARR continued to function as it had for over ten years, preventing the near real-time release of aircraft movement data—albeit less private than before.<sup>105</sup>

*e. The FAA Changes its Mind on Privacy*

Following the Pro Publica decision, and based on open government directives originating from within President Barack Obama’s administration, the FAA reversed its course on BARR.<sup>106</sup> In a March 4, 2011, Federal Register notice, the FAA stated that it believed that the

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101. See *id.* at 86-87. To be withheld under FOIA exemption 4, the information sought must be “(1) commercial or financial, (2) obtained from a person, and (3) privileged or confidential.” *Id.* at 85. Records are “obtained from a person” as long as they were submitted by a “partnership, corporation, association, or public or private organization other than an agency.” *Id.* at 85 n.6. Therefore, the court ultimately had to decide whether the elements of commercial and confidential could be found in the blocked registration numbers. *Id.* at 87. The district court rejected the notion that all information submitted by a business or corporation could be considered “commercial.” See *id.* Additionally, the historical flight tracking information that could have been obtained from the blocked registration numbers did “not convert the *aircraft registration numbers themselves* into commercial information.” *Id.* Because the “block list” was not “commercial,” it was not protected under FOIA exemption 4. *Id.*

102. *Id.* at 87.

103. See *id.* at 85, 87.

104. See *id.* at 88.

105. See Michael Grabell & Sebastian Jones, *Off the Radar: Private Planes Hidden From Public View*, PROPUBLICA (Apr. 8, 2010, 11:12 PM), <http://www.propublica.org/article/off-the-radar-private-planes-hidden-from-public-view-040810>. Prior to the decision, aircraft registration numbers appearing on the block list were undiscoverable. Members of the public looking up an airplane’s movements online could not tell if the plane has been idle, or was blocked from tracking. Following the decision, upon a FOIA request therefor, the public can discover whether the aircraft has been blocked from view.

106. See Access to Aircraft Situation Display (ASDI) and National Airspace System Status Information (NASSI), 76 Fed. Reg. 12,209-01, at 12,209 (Mar. 4, 2011) (to be implemented under revised Memorandum of Agreement with Direct Subscribers); Access to Aircraft Situation Display (ASDI) and National Airspace System Status Information (NASSI), 76 Fed. Reg. 32,258-02, at 32,258 (June 3, 2011) (to be implemented under revised Memorandum of Agreement with Direct Subscribers).

“Privacy Act does not protect general aviation operators from public knowledge of their flight information.”<sup>107</sup> Further, the FAA stated that because the release of ASDI data of currently blocked aircraft “would not reveal either the identity of the passengers on the aircraft or the purpose of the flight,” the withholding of such information is not in the public interest.<sup>108</sup>

The FAA cited the judge’s decision in the *Pro Publica* case as one reason for changing its protection of blocked registration numbers.<sup>109</sup> According to the FAA, because “[a] Federal district court has recently held that a list of general aviation aircraft registration numbers does not constitute a trade secret or commercial or financial information under the Freedom of Information Act,” the ASDI data from such aircraft consequently did not qualify for privacy protection either.<sup>110</sup>

The FAA sought to amend the blocking program to allow any aircraft operator or owner with a “valid security concern” to continue having their ASDI information excluded from public distribution.<sup>111</sup> Relying on a Treasury Department regulation, the planned blocking program would allow protection for “verifiable threat[s] to person, property or company, including a threat of death, kidnapping or serious bodily harm against an individual . . . [or] a company.”<sup>112</sup> Blocking requests would be submitted annually<sup>113</sup> with “good faith” verification by the FAA.<sup>114</sup> Despite allowing this exception for the security of some general aviation operators, the proposed program made no exclusions for privacy concerns.<sup>115</sup>

The FAA’s notice impelled the public to comment on the change in its BARR policy.<sup>116</sup> The response was overwhelmingly negative. At the end of the one-month comment period, the FAA had received 680 negative comments and five comments in favor.<sup>117</sup>

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107. Access to Aircraft Situation Display (ASDI) and National Airspace System Status Information (NASSI), 76 Fed. Reg. at 12,209.

108. *Id.* at 12,210.

109. *See id.*

110. *See id.*

111. *Id.*

112. *Id.*

113. *Id.*

114. *See* Access to Aircraft Situation Display (ASDI) and National Airspace System Status Information (NASSI), 76 Fed. Reg. 32,258-02, at 32,261 (June 3, 2011) (to be implemented under revised Memorandum of Agreement with Direct Subscribers).

115. *See* 76 Fed. Reg. at 12,210.

116. *Id.* at 12,209.

117. S. REP. NO. 112-83, at 28 (2011).

Despite this overwhelmingly negative response, the FAA moved forward with its new blocking program.<sup>118</sup> In its second notice published in the Federal Register, the FAA provided an additional reason for the policy change.<sup>119</sup> By modifying the BARR program, the FAA trusted that it was “conform[ing] to the Federal Open Government Act, comply[ing] with Executive Branch policies and directives, mak[ing] Federal Government information more open, transparent and accessible to the public, and carr[ying] out the DOT Open Government Directive promoting proactive release of DOT data.”<sup>120</sup> “Generalized privacy concerns,” according to the FAA, should not prevent disclosure based solely upon “speculative or abstract fears.”<sup>121</sup>

The FAA also further explained its belief that ASDI information does not fall within any recognized FOIA exemption.<sup>122</sup> Singling out FOIA exemptions four, six, and seven, the FAA explained away privacy protections again using the Pro Publica case.<sup>123</sup> However, the FAA failed to explain that despite the fact that corporations do not have a “personal privacy right” both under Pro Publica and other recent case law,<sup>124</sup> the pilots and their passengers on board an aircraft might have such privacy rights.

The new blocking program that arose out of the FAA’s Federal Register notices took effect on August 2, 2011.<sup>125</sup> Prior to its effective date, 7,400 aircraft registration numbers were blocked under the former BARR program.<sup>126</sup> After August 2, 2011, only 970 aircraft continued to be blocked based on a “valid security concern.”<sup>127</sup>

*f. Aviation Interest Groups Fight Back*

Upon realizing that the FAA would not back down from its plan to phase out BARR, the NBAA, together with the Aircraft Owners and Pilots Association (“AOPA”), filed a petition for review in the District of

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118. See 76 Fed. Reg. at 32,258.

119. *Id.*

120. *Id.* at 32,260.

121. *Id.* at 32,261.

122. See *id.* at 32,262.

123. See *id.*

124. See *id.* (citing Nat’l Bus. Aviation Ass’n v. Fed. Aviation Admin., 686 F. Supp. 2d 80, 86-87 (D.D.C. 2010); Fed. Commc’ns Comm’n v. AT&T Inc., 131 S. Ct. 1177, 1183-84 (2011)).

125. See *id.* at 32,258.

126. Kate Murphy, *Losing Privacy in Route Plans*, N.Y. TIMES, August 15, 2011, at B6.

127. *Id.*

Columbia Circuit Court of Appeals.<sup>128</sup> An emergency motion to stay the FAA's proposed program pending review was also filed.<sup>129</sup> The motion was denied due to the fact that "it did not satisfy the 'stringent requirements' reserved for such an extraordinary remedy."<sup>130</sup>

In its opening brief, the NBAA and AOPA stressed the privacy invasion the ASDI data created.<sup>131</sup> However, in contrast to the *Pro Publica* decision, the aviation groups pointed their arguments toward personal privacy rather than protecting corporate information.<sup>132</sup> Classifying the publication of ASDI data to the public as an "information exchange," the Petitioners stated that this created a "colossal risk to personal privacy, confidentiality, and security."<sup>133</sup> After all, it is no different than if the government tracked private citizens using their cellphones and then posted their real-time location on the Internet."<sup>134</sup>

In addition, the NBAA and AOPA argued that the FAA failed to cite its reasoning for rendering personal privacy concerns irrelevant.<sup>135</sup> "Without citing any abuses in the program, inefficiencies, administrative burdens, undue costs, or any other pragmatic rationale, the FAA has done a complete 180-degree pivot."<sup>136</sup> Questioning the FAA's reliance on openness and transparency as a rationale for the new policy, the Petitioners warned that "[e]very source of 'Federal Law' cited by the FAA explicitly cautions that personal privacy must always be weighed against the public's interest in government openness and disclosure."<sup>137</sup> Furthermore, disclosing publicly the current location and destination of private aircraft and its occupants "says nothing about how the government operates."<sup>138</sup>

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128. See Petition for Review at 1, *Nat'l Bus. Aviation Ass'n v. Fed. Aviation Admin.*, No. 11-1241 (D.C. Cir. June 22, 2011).

129. See Emergency Motion for Stay Pending Review at 1, *Nat'l Bus. Aviation Ass'n v. Fed. Aviation Admin.*, No. 11-1241 (D.C. Cir. July 1, 2011).

130. See *Nat'l Bus. Aviation Ass'n v. Fed. Aviation Admin.*, No. 11-1241 (D.C. Cir. July 21, 2011), ECF No. 15 (per curiam).

131. See Opening Brief for Petitioners at 2, *Nat'l Bus. Aviation Ass'n v. Fed. Aviation Admin.*, No. 11-1241 (D.C. Cir. Oct. 21, 2011).

132. See *id.*

133. See *id.*

134. *Id.*

135. *Id.* at 3.

136. *Id.*

137. *Id.*

138. *Id.* at 14.

Following the receipt of both parties' briefs, as well as an amicus curiae brief from the Experimental Aircraft Association,<sup>139</sup> "the D.C. Circuit Court of Appeals held oral argument on December 2, 2011."<sup>140</sup>

g. *Congress Acts to Re-Enact BARR*

As the parties in the NBAA's petition for review argued their cases before the court, Congress passed an appropriations bill which re-enacted BARR.<sup>141</sup> The statutory language as passed reads:

Notwithstanding any other provision of law, none of the funds made available under this Act or any prior Act may be used to implement or to continue to implement any limitation on the ability of any owner or operator of a private aircraft to obtain, upon a request to the Administrator of the Federal Aviation Administration, a blocking of that owner's or operator's aircraft registration number from any display of the Federal Aviation Administration's Aircraft Situational Display to Industry data that is made available to the public, except data made available to a Government agency, for the noncommercial flights of that owner or operator.<sup>142</sup>

Due to this enactment, the petition pending before the D.C. Circuit has been ordered held in abeyance.<sup>143</sup> Quickly after the passage, the FAA moved to reinstate the blocking of ASDI data upon the request of aircraft owners.<sup>144</sup>

AOPA was quick to commend Congress' action in reinstating BARR.<sup>145</sup> "On behalf of our AOPA members, we thank those in congress and the Administration who recognize the importance of assuring a measure

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139. See Amicus Curiae Brief of Experimental Aircraft Ass'n, Inc. in Support of Petitioners, Nat'l Bus. Aviation Ass'n v. Fed. Aviation Admin., No. 11-1241 (D.C. Cir. July 7, 2011). The Experimental Aircraft Association ("EAA") is an aviation interest organization whose members share an overriding interest in home-built and experimental aircraft. See EXPERIMENTAL AVIATION ASS'N, <http://www.eaa.org/>. The EAA holds Airventure, America's largest aviation gathering in Oshkosh, Wisconsin, every summer. See *id.*

140. See Nat'l Bus. Aviation Ass'n v. Fed. Aviation Admin., No. 11-1241 (D.C. Cir. Dec. 2, 2011), ECF No. 43.

141. See Consolidated and Further Continuing Appropriations Act, Pub. L. No. 112-55, § 119A, 125 Stat. 552 (2011).

142. *Id.*

143. See Nat'l Bus. Aviation Ass'n v. Fed. Aviation Admin., No. 11-1241 (D.C. Cir. Dec. 6, 2011), ECF No. 44 (per curiam).

144. See Access to Aircraft Situation Display (ASDI) and National Airspace System Status Information (NASSI) Data, 76 Fed. Reg. 78,328 (Dec. 16, 2011) (interim policy enacted until adoption of final blocking procedures).

145. See AOPA, NBAA, EAA Welcome FAA's Decision To Fully Restore BARR Availability, AIRCRAFT OWNERS & PILOTS ASS'N (Dec. 9, 2011), <http://www.aopa.org/newsroom/newsitems/releases/2011/11-4-007.html>.

of privacy protection to individuals operating their own aircraft,” said Craig Fuller, President and Chief Executive Officer of AOPA.<sup>146</sup> Additionally, the Senate Committee on Appropriations agreed with AOPA’s position on the FAA’s BARR policy, stating the Committee “does not believe that publicizing the movements of specific general aviation aircraft does anything to improve the transparency of the operations or policies of the Federal Government.”<sup>147</sup>

Despite the general aviation industry’s jubilation at the re-enactment of BARR, the congressional requirement was only temporary.<sup>148</sup> The BARR language was included in an appropriations act, so the requirement theoretically expired on September 30, 2012, or at the end of fiscal year 2012.<sup>149</sup> It is likely that Congress chose to include BARR language in the appropriations legislation as a means to re-enact the blocking program more quickly. In the meantime, the FAA has implemented an interim solution to continue the protections of the BARR program.<sup>150</sup> However, two stand-alone bills were introduced in both houses of Congress to create a more permanent resolution to the issue.<sup>151</sup>

### III. LOCATIONAL PRIVACY OF PILOTS AND THEIR PASSENGERS IS WORTHY OF PROTECTION

“Locational privacy is the ability of an individual to move in the public space with the expectation . . . [that] their location will not systematically and secretly be recorded for later use.”<sup>152</sup> Many different methods exist for tracking a person’s daily life. People can be tracked using their cell phones, based on the phone’s proximity to reception towers.<sup>153</sup> People can be tracked in their cars, using devices that help them efficiently pass through

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146. *Id.*

147. S. REP. NO. 112-83, at 28 (2011).

148. *See* Consolidated and Further Continuing Appropriations Act, Pub. L. No. 112-55, § 119A, 125 Stat. 552 (2011).

149. Lowe, *supra* note 11.

150. Access to Aircraft Situation Display to Industry (ASDI) and National Airspace System Status Information (NASSI) Data, 76 Fed. Reg. 78,328 (Dec. 16, 2011).

151. S. 1477, 112th Cong. (2011); H.R. 2897, 112th Cong. (2011). Congress failed to include BARR language in its most recent three-year FAA appropriations act in February 2012. *See* FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95, 126 Stat. 11 (2012). One belief for this oversight is that BARR stand-alone bills were then-pending in Congress. S. 1477, 112th Cong. (2011); H.R. 2897, 112th Cong. (2011). It is important to note, however, that BARR language was deleted from an earlier draft of this same Act. 158 Cong. Rec. H292 (daily ed. Feb. 1, 2012) (deletion of Section 817).

152. Blumberg, *supra* note 1.

153. *Id.*



toll collection plazas.<sup>154</sup> Moreover, people can be tracked by “checking-in” at locations via social networking applications and websites.<sup>155</sup> This tracking data, generally, is not available for review, unless a warrant is obtained or the person being tracked authorizes such a release.<sup>156</sup>

Pilots, on the other hand, are tracked using the FAA-mandated transponders in their aircraft,<sup>157</sup> and this data is placed online for public viewing.<sup>158</sup> The availability of the data for public scrutiny is why I have chosen to focus on pilots’ locational privacy. Most pilots have no complaints about the need for transponders.<sup>159</sup> Transponders help secure the safety and efficient operation of the national airspace.<sup>160</sup> Yet, when this data moves beyond only the reach of the government and onto any computer screen, it becomes a privacy issue.

Websites like FlightAware make the ASDI data available almost instantly, giving the public a view of the plane’s departure and destination points, current location, and arrival time.<sup>161</sup> Combine that data with the ability to search for aircraft tracking history stretching back into the late 1990s, and one can paint a picture of the activities and habits of a pilot and his or her passengers.<sup>162</sup> In enacting BARR language as part of a 2012 appropriations act, the legislative history supported this position.<sup>163</sup> The legislative committee “does not believe that . . . their movements and activities should be broadcast to the public at large . . . [as] efforts are generally made to protect the privacy of people lawfully going about their daily business.”<sup>164</sup>

Others have also acknowledged that private information can be revealed through the release of a civilian’s public movement data. In a recent Supreme Court decision, Justice Sotomayor highlighted that “monitoring generates a precise, comprehensive record of a person’s public movements that reflect a wealth of detail about her familial, political,

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154. *Id.*

155. *Id.*

156. See 1 JAMES CARR & PATRICIA L. BELLIA, *LAW OF ELECTRONIC SURVEILLANCE* § 4:84 (2012); 74 PA. CONS. STAT. § 8117(d)(1) (2012); Kim Komando, *5 Facebook Privacy Settings to Check Now*, USA TODAY (June 10, 2011, 2:00 PM), [http://www.usatoday.com/tech/columnist/kimkomando/2011-06-10-facebook-privacy-settings\\_n.htm](http://www.usatoday.com/tech/columnist/kimkomando/2011-06-10-facebook-privacy-settings_n.htm).

157. See 14 C.F.R. § 91.215 (2012).

158. See *N21705*, *supra* note 7.

159. See AERONAUTICAL INFO. MANUAL, *supra* note 41, ¶ 4-1-20.

160. *Id.*

161. See *N21705*, *supra* note 7; 14 C.F.R. § 91.153(a) (2012).

162. See *Buy Full History > N252SP*, FLIGHTAWARE, <http://flightaware.com/live/flight/N252SP/history/buy> (last visited March 10, 2012).

163. S. REP. NO. 112-83, at 28 (2011).

164. *Id.*

professional, religious, and sexual associations.”<sup>165</sup> Going further, one scholar states that location tracking allows the recipient of the data “to create a full picture of that person’s life . . . much of which is highly personal and private in nature, going beyond what both the individual and society would consider a reasonable expectation of privacy.”<sup>166</sup> Following an aircraft’s movements, and thus the movements of its pilot and passengers, creates a similar unreasonable invasion into the private, personal, and even business activities of those onboard.

The FAA argues that the online publication of ASDI data is not private, but rather, simply provides insight into the use of the public airspace at any given time.<sup>167</sup> “Disclosure [does] not reveal who is on any flight or what the flight’s purpose is.”<sup>168</sup> This argument underestimates the power of the Internet. Using the FAA’s online aircraft registration database and simple Google searching, one can easily find the registered owner, photos, and typically other detailed information of who and where an aircraft has been observed, maintained, and even its typical use.<sup>169</sup>

For example, while the University of Michigan was searching for a new football coach in early 2011, eager fans tracked the school’s private jet for insight into who was being considered for the job.<sup>170</sup> By searching “University of Michigan Learjet” in Google, users are quickly pointed to websites with photos of the aircraft, including registration number, and details of who regularly travels on the plane.<sup>171</sup> Using FlightAware, football fans tracked the LearJet to Louisiana, sparking curiosity that the Louisiana State University head coach would be moving north.<sup>172</sup> Similar searching can be done for most aircraft, in order to discover sufficient

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165. *United States v. Jones*, 132 S. Ct. 945, 955 (2012).

166. Adam Koppel, *Warranting a Warrant: Fourth Amendment Concerns Raised by Law Enforcement’s Warrantless Use of GPS and Cellular Phone Tracking*, 64 U. MIAMI L. REV. 1061, 1062 (2010).

167. *See* Access to Aircraft Situation Display (ASDI) and National Airspace System Status Information (NASSI), 76 Fed. Reg. 32,258-02, at 32,263 (June 3, 2011) (to be implemented under revised Memorandum of Agreement with Direct Subscribers).

168. Proof Brief for Respondent at 19, *Nat’l Bus. Aviation Ass’n v. Fed. Aviation Admin.*, No. 11-1241 (D.C. Cir. Sept. 28, 2011).

169. *See, e.g., FAA Registry*, *supra* note 7.

170. Jay Vise, *Mystery U of Michigan Plane in Baton Rouge?*, WWL – AM870 (Jan. 7, 2011, 3:50 PM), [http://www.wwl.com/print\\_page.php?contentId=7450370&contentType=4](http://www.wwl.com/print_page.php?contentId=7450370&contentType=4).

171. Katie Kuehl, *University of Michigan LearJet*, AM. INST. OF GRAPHIC ARTS, <http://portfolios.aiga.org/gallery/University-of-Michigan-LearJet/572910> (last visited March 10, 2012).

172. Vise, *supra* note 170.

information to then track the plane and obtain a “story” of the pilot and passengers’ activities.<sup>173</sup>

It could be difficult for some to label the locational data of pilots and their passengers *per se* private because it takes an extra step of online searching to obtain a fuller depiction of the likely activities of those onboard. Perhaps this is why the FAA based its revocation of the BARR program on the need for open government and transparency.<sup>174</sup> Searching any random aircraft registration number, without more, will not uncover anything but flight plan data.<sup>175</sup> Opening this data up to internet users arguably provides a glimpse into the activity of the public airspace and government resources of the FAA at any given moment.<sup>176</sup> Nevertheless, this argument runs directly counter to the goals of transparency and the FAA’s own policy regarding the release of ASDI data.

FAA and other government directives recognize that information that can be construed as private should remain as such.<sup>177</sup> The FAA argues that “generalized privacy or security concerns” should not limit the public’s access to ASDI data.<sup>178</sup> Yet, the FAA acknowledged a privacy concern existed in the flight plan data as recently as 2006.<sup>179</sup> In revising the Memorandum of Agreement between the FAA and subscribers (such as FlightAware) to the ASDI data feed, the Agency required the organizations to “respect the privacy and security interests of the general aviation aircraft owners.”<sup>180</sup> So, while the FAA argues ASDI data itself is not private, it understands the private nature of the data when it is combined with other resources. Yet, the FAA creates the most important link in the chain to invasions of privacy.

Congress also acknowledged when re-enacting BARR that unrestricted availability of private ASDI data was neither valuable to the public nor necessary.<sup>181</sup> “The Committee . . . does not believe that publicizing the

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173. E.g., a person can search the FAA’s online database to uncover an aircraft’s registration number, and then search Google for any information posted online about such aircraft or FlightAware to see where the aircraft has traveled. *See N21705, supra* note 7.

174. *See* Access to Aircraft Situation Display (ASDI) and National Airspace System Status Information (NASSI), 76 Fed. Reg. 32,258-02, at 32,260 (June 3, 2011) (to be implemented under revised Memorandum of Agreement with Direct Subscribers).

175. *See, e.g., N21705, supra* note 7.

176. *See* Access to Aircraft Situation Display (ASDI) and National Airspace System Status Information (NASSI), 76 Fed. Reg. at 32,260.

177. *Id.* at 32,259, 32,261.

178. *Id.* at 32,261.

179. *Id.* at 32,260.

180. *Id.*

181. S. REP. NO. 112-83, at 28 (2011).

movements of specific general aviation aircraft does anything to improve the transparency of the operations or policies of the Federal Government.”<sup>182</sup> Congress also shot down the contention that because pilots use public airspace and services, this required open access to each user’s activity.<sup>183</sup> “People drive their cars on roads and bridges built on Federal lands and paid with taxpayer dollars; however, the Committee does not believe that means their movements and activities should be broadcast to the public at large.”<sup>184</sup> Thus, Congress agreed that ASDI tracking data alone is sufficient to warrant personal privacy protection.

Fourth Amendment considerations are also insightful into the privacy issue, despite the FAA’s insistence that they are not.<sup>185</sup> The Fourth Amendment to the Constitution protects the “right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures,”<sup>186</sup> but this protection applies only to governmental intrusions into a person’s privacy.<sup>187</sup> In protecting the locational privacy of general aviation aircraft movements, generally, pilots are not concerned with the government’s ability to view and record historical flight plan data. As discussed, the government has a statutorily defined right to do so, and use of this information promotes the safety, security, and efficiency of the United States airspace.<sup>188</sup>

Nevertheless, a court’s analysis of a “reasonable expectation of privacy” in the Fourth Amendment context can provide guidance as to society’s idea of what should be private. Where a citizen expects that information should require safeguards from governmental intrusion, naturally, the same data should be held to greater standards for general public access.<sup>189</sup> This expectation interest helps to prove that the public’s ability to view a general aviation aircraft’s movements on the Internet is beyond what a court believes is constitutionally permitted.

Although society has a reasonable expectation of privacy within the home,<sup>190</sup> privacy rights become a little fuzzier when society moves into cars or airplanes. Historically, persons arguing that a reasonable expectation of privacy exists in airplane movements have found courts believe

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182. *Id.*

183. *See id.*

184. *Id.*

185. *See* Proof Brief for Respondent at 36, Nat’l Bus. Aviation Ass’n v. Fed. Aviation Admin., No. 11-1241 (D.C. Cir. Sept. 28, 2011).

186. U.S. CONST. amend. IV.

187. *See id.*

188. 14 C.F.R. § 91.153(a) (2012).

189. *See Katz v. United States*, 389 U.S. 347, 360 (1967) (Harlan, J., concurring).

190. *See United States v. Karo*, 468 U.S. 705, 714 (1984).

otherwise.<sup>191</sup> Courts presiding over these cases have cited government regulations requiring transponder tracking,<sup>192</sup> the inability of pilots to keep their flying, landing, or takeoff location private,<sup>193</sup> and the radar tracking capabilities of the FAA as reasons for denying such privacy rights.<sup>194</sup> While these cases are helpful in looking at privacy rights in respect to airplanes, they overlook one aspect of modern society—technology acceptance and availability.

The Supreme Court recently decided a case that I believe represents the privacy rights of pilots better than the earlier aircraft cases discussed immediately above. While the privacy rights in those cases dealt with information that was required to be disclosed to the government for a practical purpose—air traffic control<sup>195</sup>—*United States v. Jones* deals with technology, mobility, and privacy.<sup>196</sup> *Jones* involved the tracking of a suspected drug dealer via a global positioning system (“GPS”).<sup>197</sup> After attaching a magnetic GPS tracker to the underside of Antoine Jones’ Jeep, law enforcement officials proceeded to track his movements for twenty-eight days.<sup>198</sup> Investigators obtained a record of everywhere Jones went, and how long he was there.<sup>199</sup> The Supreme Court unanimously decided that this “occupation” of Jones’ vehicle was unreasonable based on trespass to property principals.<sup>200</sup>

The concurring opinions in *Jones* detailed how the intersection of privacy and technology posed problems. Justice Sotomayor stated that physical intrusion of a person’s space was not as important to privacy expectations going forward, because the public can be “followed” using methods already in wide acceptance—such as cell phones and car trackers.<sup>201</sup> Just as when tracking a pilot using his or her required transponder, when third parties can obtain access to movement data, the “private nature” of the information takes “little imagination” to develop

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191. See *United States v. Tussell*, 441 F. Supp. 1092, 1105-06 (M.D. Pa. 1977); *United States v. Bruneau*, 594 F.2d 1190, 1197 (8th Cir. 1979); *United States v. Cotton*, 770 F.2d 940, 947 (11th Cir. 1985).

192. *Tussell*, 441 F. Supp. at 1105.

193. *Bruneau*, 594 F.2d at 1197.

194. *Cotton*, 770 F.2d at 947.

195. See *id.*; *Tussell*, 441 F. Supp. at 1105; *Bruneau*, 594 F.2d at 1197.

196. See *United States v. Jones*, 132 S. Ct. 945, 948-49 (2012).

197. *Id.* at 948.

198. *Id.*

199. *Id.*

200. *Id.* at 952-53.

201. *Id.* at 955.

details about that tracked person's life.<sup>202</sup> The subsequent storage of such records allows access to this "information for years into the future."<sup>203</sup> The result, according to Justice Sotomayor, is that the possibility of invasive observation "chills associational and expressive freedoms."<sup>204</sup>

Justice Alito reiterated how modern technology changes one's expectation of what is private.<sup>205</sup> Previously, when a pilot got into his or her airplane and flew for business and pleasure, the only people who saw where he went were the FAA and bystanders at the departure and destination airports. Pilots had a reasonable expectation that only those who needed to know—the FAA—obtained the private picture of where he or she went, and for what purpose. Justice Alito recognized that "new technology may provide increased convenience or security at the expense of privacy."<sup>206</sup> In aviation, privacy has suffered, but neither for the convenience, nor the security of pilots and passengers.

Pilots should be entitled to maintain their expectation of privacy in flight plans. Pilots have voiced their displeasure toward the public viewing of their movements, while others traveling in automobiles are not subjected to the same invasions.<sup>207</sup> If everyday drivers were subjected to GPS tracking of their movements, with their location and history posted for the world to see, locational privacy would likely become a hotter public issue. However, the mere fact that a pilot is required to use a government service in order to safely and efficiently operate somehow opens up his or her life to tracking and scrutiny. The unfairness must be stopped.

#### IV. WHY LEGISLATION TO PROTECT PILOTS IS NECESSARY

As flight plan data does not consist of information traditionally thought to be private, permanent legislation will be necessary to protect pilots' and their passengers' locational movements.<sup>208</sup> "Because '[t]here is no comprehensive Federal law in the United States that protects individual privacy or security,' Congress and federal agencies have consistently worked to fill in the gaps as new technology emerges and threatens to

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202. *Id.*

203. *Id.* at 956.

204. *Id.*

205. *Id.* at 962 (Alito, J., concurring).

206. *Id.*

207. The FAA received 680 comments against the revocation of BARR, while five were received in favor of dismantling the blocking program. S. REP. NO. 112-83, at 28 (2011).

208. See 14 C.F.R. § 91.153(a) (2012).

intrude on personal privacy.”<sup>209</sup> While the Privacy Act (or alternatively, the Freedom of Information Act) ordinarily protects the release of government-collected data based upon seven exemptions,<sup>210</sup> flight plan data alone does not include the pilots’ or passengers’ names, social security numbers, or other common private data.<sup>211</sup> Rather, movement records require an additional step of searching Google or the FAA registration database to glean more information about the person or people whose travels are being tracked.<sup>212</sup> The BARR program fills this privacy gap, but currently only exists under a now-expired enactment.<sup>213</sup> Consequently, aircraft movement data needs a permanent legislative solution.

The NBAA has already litigated the issue of whether the Freedom of Information Act privacy exemptions apply to ASDI data without success.<sup>214</sup> In the 2010 *Pro Publica* decision, the district court denied that FOIA exemption 4 applied to blocked registration numbers protected by BARR.<sup>215</sup> Debatably though, the NBAA took the incorrect approach to the *Pro Publica* case. The NBAA, being a business aviation interest group, argued that the registration numbers, and thus the ASDI data was private *commercial* information.<sup>216</sup> Protecting commercial information can be done if we first protect the privacy of an individual’s movements.

Yet, the two most relevant FOIA exemptions are still not ideal for protecting ASDI data. FOIA exemption 6 restricts release of “personnel and medical files and similar files which are clearly an unwarranted invasion of privacy.”<sup>217</sup> Privacy exemption language, according to the Supreme Court, is to be “narrowly construed.”<sup>218</sup> “Personnel and medical files” implies sensitive health or employment information including date of birth, social security numbers, addresses, health records, and financial account information that ASDI data just does not contain. While exemption 6 covers a pilot’s medical history as submitted to the FAA, it likely does not

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209. Opening Brief for Petitioners at 2, *Nat’l Bus. Aviation Ass’n v. Fed. Aviation Admin.*, No. 11-1241 (D.C. Cir. Oct. 21, 2011).

210. See 5 U.S.C. § 552(b) (2006 & Supp. IV 2010).

211. See 14 C.F.R. § 91.153(a).

212. See, e.g., *N21705*, *supra* note 7.

213. See Access to Aircraft Situation Display (ASDI) and National Airspace System Status Information (NASSI) Data, 76 Fed. Reg. 78,328 (Dec. 16, 2011) (interim policy enacted until adoption of final blocking procedures); Consolidated and Further Continuing Appropriations Act, Pub. L. No. 112-55, § 119A, 125 Stat. 552 (2011).

214. *Nat’l Bus. Aviation Ass’n v. Fed. Aviation Admin.*, 686 F. Supp. 2d 80, 83 (D.D.C. 2010).

215. *Id.* at 87.

216. *Id.*

217. 5 U.S.C. § 552(b)(6) (2006 & Supp. IV 2010).

218. *Dep’t of Air Force v. Rose*, 425 U.S. 352, 361 (1976).

cover flight tracking history and data that without more does not reveal “private” information.<sup>219</sup>

FOIA exemption 7(C) similarly does not apply to movement data. This exemption limits the release of “records or information compiled for law enforcement purposes, but only to the extent that the production of such . . . could reasonably be expected to constitute an unwarranted invasion of personal privacy.”<sup>220</sup> However, ASDI data is not compiled for law enforcement purposes, but rather for the FAA’s operation of the national airspace.<sup>221</sup> While ASDI data is available for law enforcement use,<sup>222</sup> even the FAA’s original need for the data is beyond the enforcement of its own regulations.<sup>223</sup> Rather, the FAA has acknowledged that the data is used primarily for providing air traffic control services.<sup>224</sup> Therefore, under the plain language of the statute, ASDI data would not be protected under 7(C) either.

However, even if the flight plan tracking data were found to be collected for a law enforcement purpose, it is unlikely that such information would constitute an unreasonable invasion of privacy. Again, ASDI data includes primarily the aircraft’s departure and destination airports, current location, route of flight, and time of departure and arrival.<sup>225</sup> Just as discussed in relation to exemption 6, this type of data is insufficient alone to constitute private personal information.

In *Pro Publica*, the district court seemed to recognize that flight tracking could constitute a privacy invasion, if enough outside data was combined with the FAA’s ASDI information.<sup>226</sup> While the court held that an aircraft registration number alone is “unaccompanied by narrative,” the court acknowledged that a person could then track the aircraft.<sup>227</sup> Despite being able to access the ASDI data, the person would still not be able to “(1) determine the identity of the occupants of any particular flight; (2) discover the business purpose of any flight; [or] (3) track the flight in real-

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219. *See id.*; 5 U.S.C. § 552(b)(6).

220. 5 U.S.C. § 552(b)(7)(c).

221. *See* Access to Aircraft Situation Display (ASDI) and National Airspace System Status Information (NASSI), 76 Fed. Reg. 32,258-02, at 32,259 (June 3, 2011) (to be implemented under revised Memorandum of Agreement with Direct Subscribers).

222. Opening Brief for Petitioners at 7, *Nat’l Bus. Aviation Ass’n v. Fed. Aviation Admin.*, No. 11-1241 (D.C. Cir. Oct. 21, 2011).

223. *See* 14 C.F.R. § 91.153 (2012).

224. *See* 76 Fed. Reg. at 32,258-59.

225. *See* 14 C.F.R. § 91.153; *N21705*, *supra* note 7.

226. *Nat’l Bus. Aviation Ass’n v. Fed. Aviation Admin.*, 686 F. Supp. 2d 80, 86 (D.D.C. 2010).

227. *Id.* at 86-87.



time or near real-time.”<sup>228</sup> What the court fails to appreciate is that simple internet searching can often lead to information about the typical occupants of an aircraft, or why trips between certain locations can reveal the purpose of the flight. Again though, the additional steps required in linking access to one piece of data to other necessary pieces may not be enough in itself to create a recognizable privacy right under existing law.

Congress has recognized the need for legislation to protect pilot flight information. First in 2000, and again with the 2012 DOT appropriations act, Congress has enacted flight tracking privacy legislation.<sup>229</sup> Yet, members of both houses have failed to come to a permanent solution on BARR. The current legislation expired in September 2012.<sup>230</sup>

Therefore, as nothing in the Constitution, common law, or existing law protects pilot privacy in ASDI data permanently, Congress must enact legislation as they have in similar privacy situations. Congress has previously enacted statutes to protect driving records,<sup>231</sup> medical records,<sup>232</sup> phone records,<sup>233</sup> and financial records from public disclosure.<sup>234</sup> Legislative history indicates Congress’ willingness to step in to protect the privacy of their constituents.<sup>235</sup> Though, despite the desire to “protect the privacy of people lawfully going about their daily business,” Congress has yet to develop a permanent solution to BARR.<sup>236</sup>

Other governmental bodies and groups are slowly beginning to identify a privacy right in a person’s location, and acknowledge that legislation is the appropriate solution. In Pennsylvania, the state legislature enacted a statute to restrict the release of E-ZPass car transponder location data.<sup>237</sup> Yet, other states, like California, allow subpoena access to similar toll

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228. *Id.* at 87.

229. Wendell H. Ford Aviation Investment and Reform Act for the 21<sup>st</sup> Century, Pub. L. No. 106-181, § 729, 114 Stat. 61 (2000); Consolidated and Further Continuing Appropriations Act, Pub. L. No. 112-55, § 119A, 125 Stat. 552 (2011).

230. Consolidated and Further Continuing Appropriations Act, § 119A.

231. *See, e.g.*, Driver’s Privacy Protection Act of 1994, 18 U.S.C. § 2721 (2006) (prohibiting state driver’s license databases from being accessed by the public).

232. *See, e.g.*, Health Insurance Portability and Accountability Act of 1996 (HIPPA), 42 U.S.C. § 1320d (2009) (protecting health information from unauthorized disclosure).

233. *See, e.g.*, Telephone Consumer Protection Act of 1991, 47 U.S.C. § 227 (2006) (prohibiting robo-calling).

234. *See, e.g.*, Right to Financial Privacy Act of 1978, 12 U.S.C. §§ 3401-3422 (2006) (prohibiting government access to personal banking information).

235. *See, e.g.*, 131 CONG. REC. E1323, 1, 3 (daily edition Apr. 3, 1985) (statement of Rep. Stump) (indicating that Congress maintains policy of confidentiality in reference to confidential information, and acts to control privacy following negative Supreme Court precedent).

236. S. REP. NO. 112-83, at 28 (2011).

237. 74 PA. CONS. STAT. § 8117(d)(1) (2012).

collection records.<sup>238</sup> Concurring in the *Jones* case, Justice Alito recognized that enhanced availability of tracking data, whether it derives from an automobile GPS unit or an aircraft transponder, “may spur the enactment of legislation to protect against these intrusions.”<sup>239</sup> Further, “[i]n circumstances involving dramatic technological change, the best solution to privacy concerns may be legislative.”<sup>240</sup> Unfortunately though, new technology often moves much faster than the legislative process.

Despite the expiration of recent BARR legislation, new bills were introduced in both houses of Congress to protect pilot privacy.<sup>241</sup> Though, when Congress had the opportunity to include BARR protection in the passage of a three-year appropriations act to extend FAA funding in February 2012, they failed to do so.<sup>242</sup> Thus, while legislation appears to be the answer to protecting locational privacy in airplanes, it is unclear whether pilots and their movements will again be exposed to the public eye prior to a creation of a more permanent solution.

## V. CONCLUSION

Locational privacy, thanks in large part to technological advancement, is becoming an increasing problem. Citizens can be tracked using their cell phones, cars, and even in social networking applications. However, nowhere is this problem more overt than in the aviation community. Not only are we recording the history of a pilot and his or her passengers’ aircraft movements around the country, we are then placing them online for the world to see. Combining tracking data with other available information on the Internet, one can learn more about the pilot than the pilot is likely comfortable revealing.

Unfortunately, no existing law prevents this invasion of privacy from occurring on a long-term basis. Existing flight tracking legislation expired on September 30, 2012. In order to prevent a lapse in protection, the “BARR Preservation Act of 2011” was introduced before both houses of Congress and reads as follows:

(a) Findings. Congress finds the following:

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238. See John Simerman, *FasTrak to Courthouse: Lawyers Subpoena Bridge Toll Records to Argue Cases*, *CONTRA COSTA TIMES*, June 5, 2007.

239. *United States v. Jones*, 132 S. Ct. 945, 962 (2012).

240. *Id.* at 964.

241. S. 1477, 112th Cong. (2011); H.R. 2897, 112th Cong. (2011).

242. See FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95, 126 Stat. 11 (2012).

(1) The Federal Government's dissemination to the public of information relating to a noncommercial flight carried out by a private owner or operator of an aircraft, whether during or following the flight, does not serve a public policy objective. (2) Upon the request of a private owner or operator of an aircraft, the Federal Government should not disseminate to the public information relating to noncommercial flights carried out by that owner or operator, as the information should be private and confidential.

(b) Prohibition.

(1) In general. Upon the request of a private owner or operator of an aircraft, the Administrator of the Federal Aviation Administration shall require that, with respect to the noncommercial flights of that owner or operator, the display of that owner or operator's aircraft registration number is blocked in aircraft situational display data available to the public.

(2) Availability of information to government agencies. Paragraph (1) does not affect the authority of the Administrator to make aircraft registration numbers available to Federal, State, or local government agencies.<sup>243</sup>

I believe this legislation sufficiently protects pilots' privacy rights in flight planning and tracking. As in the current BARR program, it allows pilots to opt out of the publication of their tracking data. Most importantly though, it is a permanent solution.

Congress has recognized over the past twelve years that ASDI data is worthy of protection, and now is the time to act.

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243. S. 1477, 112th Cong. (2011); H.R. 2897, 112th Cong. (2011).

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