General Aviation Security: Risk, Perception, and Reality

By John Adams Hodge

Despite progress achieved since September 11, 2001, to make commercial aviation safer from terrorist incidents, some commentators have criticized the security of the general aviation (GA) sector. They suggest that small airports may pose large security risks due to a lack of uniform regulations, standards, and procedures for limiting public access to GA aircraft, ramps, and facilities. Such claims, however, are without merit.

The term “general aviation” typically refers to all segments of aviation that are not operations conducted by the military or commercial air carriers. The nation’s GA airports and landing facilities are diverse, including busy airports dedicated to corporate and business aircraft, hospital helipads, municipal and rural airports, “grass strips,” seaplane bases, former military runway facilities that have been converted to civilian use, remote mountain airstrips, and industrial parks that have been developed around a runway or airport facility.

After the 9/11 terrorist attacks, the federal government faced significant challenges to protect the public, while at the same time preserving air commerce and the U.S. aviation industry. Federal, state, and local governments, through a patchwork of laws, regulations, and procedures, seek to detect terrorists who would use aviation as a means of carrying out attacks on the population and on targets related to government, financial, and infrastructure resources as part of an agenda against the United States and its allies. One consequence of such efforts is that bona fide GA aircraft operators and crew members continue to be snared in a web of overlapping law enforcement actions in which rational discourse often is subordinate to irrational, fear-based responses.

Due to the diversity of GA operations, the Transportation Security Administration (TSA) recognized that a “one-size-fits-all” approach to GA security is neither practical nor justified. Some commentators have complained that a gap in aviation security exists because GA is not subject to the same network of extensive and overlapping command-and-control security procedures that apply to commercial airline passengers. The core criticism of GA security is that all GA pilots, passengers, and facility employees are not subject to the same type of personal screening (e.g., personal searches, metal detectors, scanning devices) prior to entering aircraft or an airport operations area (AOA). The second general type of complaint is that all GA airports are not required to have security fencing and do not have trained security personnel on-site at all times.

Upon closer examination, the imposition of such procedures at all airports would be impractical and financially unsustainable, and the commitment of public resources would not be justified by a corresponding decrease in risk to the public. Commercial aviation security is not a valid point of comparison for GA security because the risks associated with each are different, and the wide diversity of GA operations and facilities demands a different, more nuanced response.

This article reviews the U.S. government’s approach to GA security in the post-9/11 period, including how GA airports are regulated, then examines recent cases in which GA pilots have been detained and questioned (and their aircraft searched) by law enforcement authorities in the context of Fourth Amendment jurisprudence governing such searches. This author argues that some law enforcement personnel, particularly those who are not aviation specialists, are susceptible to psychological biases that lead them to mistakenly view bona fide GA pilots as potential terrorists and to have difficulty relinquishing these biases even in the face of contrary evidence. This article concludes that aviation-specific training and greater cooperation between the GA community and law enforcement and government agencies are essential to avoiding the pernicious effects of these psychological biases.

The U.S. Government’s Approach to GA Security

After the 9/11 terrorist attacks, TSA reviewed methods to address GA security and vulnerability. In 2004, TSA issued a report entitled “Security Guidelines for General Aviation Airports.” The report did not propose mandatory, generally applicable security requirements, such as those in effect at commercial service airports. Rather, TSA recognized that each GA landing facility is unique and that recommendations that might benefit one facility could be impractical to implement at others. Thus, the report focused on security relating to GA personnel, aircraft, airports/facilities, surveillance,
security plans and communications, and specialty operations on a location-specific basis.

TSA did not take the position that GA airports or aircraft are a threat in and of themselves.9 Because vulnerabilities within the commercial aviation sector had been reduced as a result of increased security protocols, however, TSA believed that GA could be perceived as a more attractive target for terrorists. TSA, having recognized that a uniform security plan could not be applied to the entire spectrum of GA airports, proposed a risk management-based approach focusing on the characteristics and operations of each facility. Nonetheless, TSA concluded that “security guidelines must be federally endorsed to discourage a hodgepodge of state and local guidelines.”10 TSA’s recommendations addressed a wide range of topics, including:

- How passengers and visitors are given ramp and aircraft access.
- The role of flight schools in vetting the identification of students.
- Provision of ramp or apron access to transient pilots.
- Security of airport perimeters and AOAs.
- The need for signage to clearly identify areas of restricted access.
- Development of an identification system for personnel and vehicles.
- Airport surveillance, including a community “airport watch” program.
- Education for airport users, personnel, and tenants regarding basic security issues and procedures.
- Development of tailored airport security plans.
- Liaison with local law enforcement and DHS.

In 2004, the Government Accountability Office (GAO) issued a report, “General Aviation Security,” that concluded that increased federal oversight was needed and that responsibility for assessing and enhancing GA security falls primarily on airport operators.12 The FAA and TSA had taken steps to address GA security risks, such as background checks for foreign flight school students, the issuance of temporary flight restrictions over landmarks and special events, and the issuance of security guidelines for GA facilities. Nonetheless, the GAO recommended that TSA develop a plan to implement a risk management program for GA. In addition, the GAO found that the FAA had not developed standard policies or procedures to review and revalidate the need for flight restrictions. Such restrictions have the potential to negatively affect the GA industry. Both TSA and FAA agreed with the GAO’s recommendations.

In 2007, Congress required TSA to develop a standardized threat and vulnerability assessment for GA airports but to perform such assessments based upon relative risk.13 In response, TSA surveyed approximately 3,000 GA operators to evaluate security at GA facilities.14

In May 2011, GAO issued another report, “General Aviation, Security Assessments at Selected Airports,” which suggested that, based on a sample survey of GA airports, TSA’s voluntary “Security Guidelines for General Aviation” were not being fully implemented.15 The GAO focused on the lack of physical barriers such as perimeter fencing at GA airports, but also examined 13 other parameters such as control of access points, lighting, on-site law enforcement, closed-circuit television systems, screening of passengers and cargo, and backup power supplies.16 The GAO report was criticized for being misleading and containing inaccuracies.17 TSA responded to the GAO report by stating that most GA airports were complying with recommended security measures and noting that the GAO had omitted any discussion of existing GA security programs.18

Regulation and Licensing of Airports

The FAA regulates commercial service (air carrier) airports and issues Airport Operating Certificates pursuant to 14 C.F.R. part 139. Part 139 addresses emergency operations such as fire and rescue facilities, fueling safety, aircraft markings and lighting, wildlife control, and winter operations. With the exception of Part 139 certification, the FAA does not license GA airports.19

The FAA also may impose requirements on GA airports through grant assurances under the Airport Improvement Program (AIP).20 While the AIP does not include a specific security component in its grant assurances, it could provide funding for the development of airport security management plans for some, but not all, GA airports. In addition, the FAA could expand Part 139 to require the development of GA airport security plans and to add security training to the required elements of safety management systems for airport operators and facilities.21

Pilot Detention and Aircraft Searches

In several recent, high-profile cases, local law enforcement personnel detained pilots for questioning by the Customs and Border Patrol (CBP) and the U.S. Drug Enforcement Administration (DEA).22 These pilots were told only that “they fit a profile” based on their route of flight. In different cases, the CBP and DEA requested permission to search each aircraft, but no search warrants were executed. Typically, local law enforcement was used to detain the pilot until the DEA or CBP arrived. In some cases, pilots were told that the stop was random, whereas in others they were told that their aircraft was known to have been involved in drug activity.23 The Aircraft Owners and Pilots Association (AOPA), a leading GA industry trade association, has received incident reports from its members of approximately 42 such incidents.24 As a result, it published guidance to its members on “What to Do If Stopped by Law Enforcement.”25 When AOPA challenged CBP to identify legal authority for these incidents, CBP provided only vague statements.26
The Fourth Amendment and Aircraft Searches

Although the Fourth Amendment to the U.S. Constitution protects against unreasonable searches, no specific doctrine has been developed for aircraft searches. The seminal modern search-and-seizure case is Katz v. United States.27 In Katz, the U.S. Supreme Court stated that the Fourth Amendment "protects people, not places."28

More recently, in Kyllo v. United States, the U.S. Supreme Court ruled that the use of a thermal imaging device to search a private home was unconstitutional.29 In the majority opinion, Justice Scalia stated that when the "[g]overnment uses a device that is not in general public use, to explore the details of the home that would previously have been unknowable without physical intrusion, the surveillance . . . is presumptively unreasonable without a warrant."30 Kyllo concerned a search of a home, not a mobile object such as an aircraft. By contrast, in Illinois v. Caballes, the U.S. Supreme Court held that the use of a drug dog during a routine traffic stop did not violate the Fourth Amendment.31 In attempting to reconcile these two decisions, the Court in Caballes reasoned that a thermal imaging device could also detect lawful activity, something that the dog could not.32 In Bond v. United States, the U.S. Supreme Court focused on the conduct of a police officer in finding that the search at issue was unreasonable.33 In that case, the officer felt the outer part of a bag while looking for contraband.

Many Fourth Amendment cases are so fact-specific that prospective application can be difficult. Some cases have applied the law relating to automobiles in the context of aircraft searches.34 Warrantless searches are allowed in limited circumstances. A warrantless search of an airplane is permitted only if probable cause exists with exigent circumstances or if the pilot or aircraft owner provides consent.35 There must be probable cause that the airplane contains contraband or evidence useful for the prosecution of a crime.36 At the time of the stop, the official must have probable cause to believe that the aircraft is transporting contraband illegally.37 The exigent circumstances requirement, as applied in automobile cases, arises from the probability that the vehicle is movable, the occupants are alerted, and the contents of the vehicle might not be found if the vehicle is released prior to obtaining a warrant.38 In one airplane case, the court described exigent circumstances thus:

The airplane had stopped on a landing pad of a public airport with access to runway ramps. The DEA agents had probable cause to believe that contraband was contained in the airplane. When the plane landed and the awaiting police cars were observable, confederates may very well have been alerted by way of the airplane radio to come and remove the airplane or contraband. Similarly, the airplane contained 240 pounds of marijuana, which obviously would have required some transportation from the airplane by automobile, or otherwise, perhaps by waiting confederates.39

The claim of exigent circumstances can be defeated if sufficient time exists to obtain a warrant and law enforcement fails to act reasonably to do so.40 Courts have found exigent circumstances where there was a danger of flight or escape; harm to the police or the public; or a risk of loss, destruction, removal, or concealment of evidence.41

Law enforcement may also request consent to search without a warrant. A litany of cases addresses the legality of third-party consent for searches. This may arise where the pilot gives consent to a search and such consent then implicates a third party. The right of a third party to consent to a search of jointly controlled premises has been judicially recognized in relationships such as spouses, mistresses and lovers, hosts and temporary house guests, trespassers and owners, roommates, parents and children, automobile bailees, business partners, employees, and employers.42 In United States v. Mayer, the government unavailingly argued that exigent circumstances existed because evidence might be flushed down a toilet or hidden in the fuel tank of an airplane.43 No evidence existed that the aircraft at issue even had a toilet. Contaminating the aircraft's fuel tank with marijuana would render the viability of further flight operations doubtful at best, thus eviscerating the notion of exigent circumstances.

Border Searches of Aircraft

Customs officials may stop and search persons crossing international borders without a warrant and without probable cause to determine if the person is entitled to enter the country, and also to determine whether the person is carrying contraband.44 When an aircraft crosses an international border and lands in the United States, the warrantless search of passengers and aircraft by customs officials is permissible. The U.S. Supreme Court has stated that “a search of the passengers and cargo of an airplane arriving at a St. Louis airport after a nonstop flight from Mexico would clearly be the functional equivalent of a border search.”45 There are three categories of border searches. The first, as described above, is a “search at the functional equivalent of the border.["] Second, an “extended border search” occurs when a customs official follows a suspected smuggler in the hope of netting others.46 Third, customs officials may search an object that has not crossed the border if they are reasonably certain that it contains an item that has crossed the border.47

In determining whether a search is the “functional equivalent” of a border search, the Eleventh Circuit has held that officers must be reasonably certain that the object of the search has crossed an international border, the search must take place at the first practicable point after the border was crossed, and there must have been
no time or opportunity for the object of the search to have changed materially since the time of the crossing.\(^{58}\)

Warrantless customs searches are allowed at the border “pursuant to the longstanding right of the sovereign to protect itself by stopping and examining persons and property crossing into this country, and are reasonable simply by virtue of the fact that they occur at the border.”\(^{49}\) With the exception of customs searches, warrantless searches must be accompanied by the degree of probable cause necessary for a search under a warrant.\(^{50}\)

In United States v. Brennan, the Fifth Circuit ruled that a search of an aircraft was not a border search because the only evidence regarding the aircraft’s flight was that it departed from Melbourne, Florida, and headed southwest. Radar contact was lost over Miami, and 13 ½ hours later, the aircraft returned and landed at Melbourne. The court found that the border was “simply too attenuated . . . to support this search as one occurring at the functional equivalent of an international border.”\(^{51}\)

Administrative Searches of Aircraft
An “administrative search” is a search conducted as part of a regulatory scheme in furtherance of an administrative purpose and not as part of a criminal investigation. These include commercial airline passengers and fire and health inspections. An administrative “search must be limited in its intrusiveness as is consistent with satisfaction of the administrative need that justifies it.”\(^{52}\) Such searches do not require probable cause “directed to a particular place or person to be searched.”\(^{53}\) A search that exceeds the scope of an administrative purpose may be permissible, but only pursuant to a warrant or under exigent circumstances. Administrative searches must be reasonable and part of a regulatory scheme. They involve balancing the need for a reasonable search against the invasion that the search entails.\(^{54}\) The Fifth Circuit in Brennan commented that “[w]ithout holding that an airplane is the legal equivalent of an automobile for the purpose of search and seizure, we note that the slightly greater difficulty of getting away from the scene in an airplane occasioned by the need to achieve takeoff speed is offset by the 360-degree range of airborne escape routes.”\(^{55}\)

CBP Regulatory Authority to Search Aircraft
CBP justifies “profile” stops of GA pilots based on 14 C.F.R. § 61.3(l), which requires a person holding an airman or medical certificate to present it (and photo identification) to “[a]ny Federal, State, or local law enforcement official.” In addition, an aircraft operator is required to “make available for inspection a certificate of registration for aircraft when requested by a United States Government, State, or local law enforcement officer.”\(^{56}\) Because the registration form must be displayed in the aircraft in a location that is visible to passengers and crew at the entry of the aircraft or flight deck, law enforcement may try to use this requirement as a basis for gaining warrantless entry to an aircraft.\(^{57}\) The CBP stops reported in the media have occurred far from an international border and the flights have had no connection with the crossing of an international border. Such stops have provoked outrage in the GA pilot community.\(^{58}\) Where probable cause may exist, a warrantless search based upon exigent circumstances may not be appropriate if the aircraft is a glider or the aircraft has landed and needs to be refueled prior to departure. In either case, there is little chance of “getting away.”

The Psychological Component
Law enforcement’s detention of pilots and searches of aircraft often manifest the psychological phenomena of confirmation bias and tunnel vision. Under these phenomena, law enforcement tend to treat evidence as confirming a suspicion that pilots are potential terrorists, while simultaneously excluding other, more plausible conclusions. In one case, Robin Fleming, a glider pilot, was lawfully operating his aircraft in the vicinity of a nuclear power plant when local law enforcement arrested, jailed, and charged him with breach of the peace.\(^{59}\) In the Fleming case, local police repeatedly questioned the pilot about where he was from because he had a British accent, even though he was a U.S. citizen and resided in a contiguous county. Statements reportedly made to Mr. Fleming appeared to reflect a suspicion or belief that he might be a terrorist.\(^{60}\) Studies have demonstrated that when police are convinced that a suspect is lying, they are resistant to changing their minds.\(^{61}\) In addition, other pilots attempted to demonstrate to police with aeronautical charts that no such “no-fly zone” existed over the nuclear plant, but the police discounted this information.\(^{62}\) These scenarios are consistent with confirmation biases that cause law enforcement to believe that evidence supports their suspicion of guilt while simultaneously discounting exculpatory evidence.

Tunnel vision has been described as a natural psychological condition that prompts actors in the criminal justice system to focus on a suspect, select and filter the evidence “that will build a case” for conviction, and ignore or suppress evidence that points away from guilt.\(^{63}\) The closely related concept of confirmation bias connotes the tendency to seek or interpret evidence in ways that support existing beliefs, expectations, or hypotheses.\(^{64}\) In addition, people will seek information that confirms (and discount information that would discredit) their hypotheses.\(^{65}\) Persons with confirmation biases tend to cling to their beliefs even when supporting evidence is removed.\(^{66}\) Other related biases have also been identified, such as belief persistence or belief perseverance, hindsight and outcome bias, reiteration effects, anchoring effects, role effects, and conformity effects.\(^{57}\)
What are the implications of confirmation biases and tunnel vision for aviation lawyers representing GA pilots who become a target of law enforcement in the post-9/11 environment? These psychological phenomena might be present during questioning, detention, and arrest, and could result in charges being brought against a pilot. In defending such actions, counsel should be aware of these conditions and be prepared to address them as contributing factors in response to overzealous law enforcement actions. In aviation-related cases, such biases may arise from factors such as the general unfamiliarity of law enforcement with aviation, aircraft, and flight rules. As such, officials may find themselves in an environment that is foreign to them and may gravitate to beliefs regarding the motivation or guilt of a suspect that have no basis in fact. The desire to prevent terrorist acts may produce a level of stress and emotion in law enforcement that exacerbates confirmation biases and tunnel vision.68

Cooperative Solutions
Cases such as the glider incident underscore the need for education of state, local, and airport law enforcement officials who may respond to a GA security incident. Law enforcement agencies that have an aviation division may have certificated personnel who can serve as advisors and liaise with the aviation industry on security issues. Local law enforcement should develop joint plans, including scenario-based training programs, with local airport officials such as airport managers, fixed-base operators, and pilot organizations. For example, the Civil Air Patrol has assisted the Department of Defense in training and simulating the interception of GA aircraft. Such scenario-based training provides a benefit to military crews who may have little or no understanding of GA flight operations. Similar initiatives could educate local law enforcement and others such as nuclear plant security personnel on how to properly respond to aviation security-related incidents. In addition, state aeronautical agencies, the FAA, and the TSA could provide assistance to airports and local law enforcement with cooperative programs to promote the development of a common understanding regarding GA security, airport-specific security plans, communication with and education of law enforcement, corporate security regarding GA operations, and the promotion and use of scenario-based training.

Conclusion
GA security remains a challenging area for government, industry, aircraft operators, and flight crews. Some commentators have criticized the current approach to GA security, yet fail to recognize that it is impractical and cost-ineffective to treat all 19,000 airports and landing facilities in the United States as potential launching pads for terrorist activity. Due to the diversity of GA operations, the TSA has wisely sought the assistance of the aviation industry and other stakeholders to promote a common strategy for addressing GA-related security. Unfortunately, due to their unfamiliarity with GA operations, some law enforcement agencies persist in targeting pilots even when they are engaged in the lawful movement of aircraft. Law enforcement at all levels of government could benefit from developing relationships and understanding with GA stakeholders in their communities. Through such partnerships, cooperative solutions can lead to a safer environment for the public and for GA aircraft operators.

Endnotes
1. This broad swath of the aeronautical industry includes business and corporate flight operations, personal transportation, air ambulance and medevac operations, rescue operations, wildlife surveys, natural resource surveys and imaging, traffic reporting, agricultural application, firefighting, law enforcement, emergency services, silviculture operations, flight training, on-demand air taxi and charter operations, fractional business operations, small cargo aircraft, and other related flight operations, support, and maintenance operations.


8. Id.

9. Id. at 4.

10. Id.

11. Id. See also Transp. Research Bd., Airport Coop. Research Program, Synthesis 3, General Aviation Safety and Security Practices 19 (2007) (since the 9/11 attacks, GA airports have incorporated security plans into daily operations). The TRB also lauded the beneficial

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contributions of other programs such as the Aircraft Owners and Pilots Association (AOPA) Airport Watch Program. Id. at 13. The National Business Aviation Association also has produced a set of security recommendations for its members. Best Practices for Business Aviation Security, NAT’L BUS. AVIATION ASS’N, http://www.nbaa.org/ops/security/best-practices/.


14. The survey results were withheld from public dissemination as Sensitive Security Information. Infra note 15, at 7.


16. Id. at 24–25.


20. The FAA operates the AIP grant program to support airport development and maintenance. See Airport Improvement Program (AIP), Fed. Aviation Admin., http://www.faa.gov/airports/aip/.

21. See Transp. Research Bd., supra note 11, at 6. Some state aviation agencies license airports and landing facilities, but these licensing requirements often do not apply to GA airports. While state licensure could be expanded to require the adoption of an airport security plan, this approach is not a practical solution nationwide because not all state license airports.


28. Id. at 351, 360.


30. Id. at 40.


32. Id. at 409–10.


37. Id.

38. Id.

39. Id. at 730.


41. Id. at 256.

42. Phifer, 400 F. Supp. at 732–33.

43. Mayer, 620 F. Supp. at 256.


45. Almeida-Sanchez, 413 U.S. at 273.


48. Mayer, 620 F. Supp. at 257 (citing United States v. Carter, 760 F.2d 1568, 1568 (11th Cir. 1985)).


51. Brennan, 538 F.2d at 715.
52. United States v. Davis, 482 F.2d 893, 910 (9th Cir. 1973).
53. Id. at 908.
55. Brennan, 538 F.2d at 721. In the case of a glider, a claim of exigent circumstances is implausible because a glider lacks a motor and thus would not be able to leave the scene.
57. 14 C.F.R. § 91.203.
58. See articles by James Fallows cited supra note 22; AOPA comments, supra note 25.
60. Author’s personal communication with Robin G. Fleming (Aug. 8, 2012).
62. Supra notes 26, 60 and infra note 66.
64. Findley, supra note 63. See also T. Gilovich, How We Know What Isn’t So: The Fallibility of Human Reason in Everyday Life (1991); R.S. Nickerson, Confirmation Bias: A Ubiquitous Phenomenon in Many Guises, 2 Rev. of Gen. Psychol. 175 (1998).
65. Findley, supra note 63.
67. See Nickerson, supra note 64, at 187. These effects have also been identified in disciplines other than the legal system, such as in the financial industry and the medical profession.
68. Findley & Scott, supra note 66, at 323–27.