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November 2, 2005

Ms. Ellen Crum
Docket Management Facility
U.S. Department of Transportation
400 Seventh Street, SW
Room PL – 401
Washington, DC 20590

Re: Notice of Proposed Rulemaking, Washington, D.C. Metropolitan Area Special Flight Rules Area, Docket No. FAA-2003-17005

Dear Ms. Crum:

The Aircraft Owners and Pilots Association ("AOPA") is a not-for-profit organization with a nationwide association membership of more than 407,000 pilots. AOPA represents two-thirds of all pilots in the United States, and is the largest pilot association in the world. AOPA's mission is to represent the interests of those who contribute to our economy by utilizing general aviation aircraft to fulfill their business and personal transportation needs.

On July 29, 2005, the Federal Aviation Administration ("FAA") issued a Notice of Proposed Rulemaking ("NPRM") entitled "Washington, D.C. Metropolitan Area Special Flight Rules Area." The NPRM proposes to make permanent all of the flight restrictions that currently exist in the Washington, D.C. area, including particularly the requirements relating to the airspace currently identified as the Washington, D.C. Air Defense Identification Zone ("ADIZ"). AOPA opposes that proposal, and recommends instead that the FAA analyze whether the existing ADIZ requirements can be eliminated; if it is determined this is not possible, the FAA should examine how they could be modified to reduce the operational burdens on smaller, lighter aircraft while maintaining an equivalent level of security.

In a letter to FAA Administrator Marion Blakey, dated September 26, 2005, AOPA requested that, in addition to reviewing written comments, the FAA convene one or more public meetings to consider oral comments before issuing any final rule. The opportunity to provide oral comments in a public forum would allow the FAA, Department of Defense, and Homeland Security officials to hear directly from members of the general aviation community about the practical difficulties the ADIZ causes to pilots operating in the National Capital Area. It would also facilitate the Federal Government's ability to ask questions and pursue in-depth follow-up responses from those most operationally affected by the restrictions. Reviewing written comments alone would not allow the FAA a full opportunity to pose questions and explore

alternatives. In short, AOPA believes that a public meeting will greatly assist the FAA's understanding of the full range of issues presented by the ADIZ. AOPA hereby renews that request for a public meeting and submits its written comments below.

EXECUTIVE SUMMARY

In the Washington, D.C. area, more than 10,000 pilots (8,000 of which are AOPA members) are based at local airports. These pilots, as well as those not based in the area, conduct approximately 80 percent of the 1.1 million operations annually from 19 public-use airports in the region. For those pilots who live and work in the area, the existing ADIZ flight restrictions are a daily problem. For members who live outside of Washington, D.C., the proposal to make the flight restrictions permanent raises a substantial concern that the FAA will use them as a template for establishing similar restrictions in the airspace around other major cities.

AOPA believes that the NPRM would make permanent a number of requirements that are difficult for general aviation pilots to meet, and which have already caused many pilots to reduce or stop flying in the Washington area altogether. The procedural requirements of the ADIZ, which were developed originally as temporary security measures with no public input, have had a substantial effect on the airports and businesses in the National Capital Region, and have dramatically increased the workload on air traffic controllers – with minimal security benefit.

AOPA opposes the NPRM in its current form. The FAA must not implement the NPRM as a final rule, but instead, should modify the existing flight restrictions. AOPA contends that the FAA can maintain the special safety and security needs of the Region, but also better accommodate the practical needs of those who live and work and need access to the area.

AOPA believes that the Washington, D.C. area can be protected through a combination of the existing requirements of the 15-mile Flight Restricted Zone ("FRZ"); the existing temporary ADIZ requirements, should either be eliminated or modified to apply only to larger, faster aircraft; and a new, simpler set of requirements applicable to slower, lighter aircraft. In the time since the existing requirements were first introduced, security in the region has been augmented by other measures, including ground-based missile systems, more nimble air interdiction capability with U.S. Customs helicopters, a laser warning system, and establishment of an interagency air security coordination center. In addition, the pre-existing air traffic control requirements of the already highly restrictive Class B Controlled Airspace around Reagan National, Dulles International, and Baltimore-Washington Airports also aid in the surveillance of light aircraft. In AOPA's view, the FAA should implement safer, smarter, and more efficient security procedures for the airspace in the Washington, D.C. area.

Logically, lighter aircraft, flying at slower speeds, do not pose the same threat as larger, faster aircraft, and therefore should not be subject to the same flight restrictions. The FAA should examine whether the current ADIZ requirements of filing a flight plan, obtaining a unique transponder code, and maintaining two-way communications with air traffic control should be modified for slower, lighter aircraft. The NPRM does not analyze that issue.

In Vision 100, Congress required the FAA to report every 60 days on the need for the ADIZ, and required the FAA to describe ways the ADIZ could be improved to increase operational efficiency and to minimize impacts on pilots and controllers.[1] The FAA has essentially ignored that legal requirement, and the NPRM ignores it again. In light of the FAA's previous failure to perform the operational analysis required by Vision 100, AOPA requests that the FAA give serious consideration to the alternatives discussed in these comments.

AOPA's comments are divided into three parts. First, to put the current NPRM in context, AOPA believes that the FAA's analysis of costs, benefits and alternatives would benefit from a thorough review of the history and background of the ADIZ. Those matters are discussed in Part I below.

Next, in Part II below, AOPA provides its comments on the NPRM's proposal to codify the existing flight restrictions in the Washington, D.C. Metropolitan area. Although the NPRM discusses the FRZ and the ADIZ together as part of the new Special Flight Rules Area ("SFRA"), our comments are directed only at the ADIZ, and not the FRZ. As explained in Part III below, AOPA believes that, with respect to the large majority of general aviation aircraft, the ADIZ adds little incremental security benefit, while creating significant operational and administrative problems that must be addressed. The NPRM does not consider all of the relevant factors bearing on cost, and uses an incorrect methodology to analyze the anticipated benefits of the proposed rule. The Government has never performed a detailed threat assessment justifying the particular requirements that currently exist in connection with the ADIZ.

Finally, in Part III below, AOPA provides its comments on the airspace restrictions applicable to the three general aviation airports that are inside the boundaries of the FRZ within the ADIZ. AOPA has supported those measures in the past, and in general believes that the proposed rules are appropriate.

I. THE ADIZ WAS INTENDED TO BE TEMPORARY AND HAS NEVER BEEN SUBJECTED TO RIGOROUS ANALYSIS

On Friday, February 7, 2003, in preparation for hostilities in Iraq, the Department of Homeland Security ("DHS") increased the National Threat Level to Code Orange.[2] Two days later, as one of the increased security measures in response to the heightened threat level, the Federal Aviation Administration issued a notice to airmen ("NOTAM") designating the airspace surrounding Washington, D.C. as an Air Defense Identification Zone ("ADIZ"). Within the ADIZ, all air traffic must comply with certain communication and identification requirements prescribed by the FAA.

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[1] Vision 100 – Century of Aviation Reauthorization Act, Pub. L. No. 108-176, § 602, 117 Stat. 2490, 2563 (2003) ("Vision 100").

[2] White House Press Release, *Homeland Security Threat Level Raised to Orange: Remarks by Attorney General John Ashcroft, Secretary of Homeland Security Tom Ridge, FBI Director Robert S. Mueller, III* (February 7, 2003) [hereinafter "White House Press Release"], *available at* www.whitehouse.gov/news/releases/2003/02/20030207-6.html.

The NPRM describes, in very general terms, the ADIZ and accompanying requirements. However, as reported to Congress by the Congressional Research Service ("CRS") "the ADIZ has often been oversimplified."[3] In this case, the description in the NPRM certainly does not adequately convey the corresponding impact on general aviation pilots. The ADIZ encompasses a very large area, covering all the airspace from the ground up to 18,000 feet that falls within 30 miles of Washington Reagan (DCA), within 30 miles of Washington Dulles (IAD), and within 30 miles of Baltimore Washington (BWI) airport. The ADIZ boundaries generally follow the boundaries of the Class B restricted airspace around those airports, and the ADIZ requirements are in addition to those that apply to Class B airspace. However, because the three Washington-area Class B airspace regions overlap, and because certain areas outside those designated as Class B airspace are also included, the ADIZ boundary is irregular, extending a minimum of 30 miles and a maximum of about 50 miles from the White House. At its widest point, across the southeast-northeast axis, the ADIZ spans a distance of about 90 miles. Within the area included in the ADIZ, there are 19 public-use airports, serving more than 10,000 pilots every year.[4] More than 2,600 aircraft are based at those airports, and they conduct 1.1 million operations annually.[5]

The Washington area ADIZ was put in place very quickly over a weekend, without any opportunity for public comment, as a temporary measure to enhance aviation security during the period while the National Threat Level remained at Code Orange.[6] On February 27, 2003, following the end of major combat in Iraq, the threat level was reduced from Orange to Yellow, and a similar ADIZ in the New York metropolitan area was rescinded, but the Washington area ADIZ remained in place.[7]

All pilots who plan to operate within the ADIZ must comply with a number of specific procedural requirements:

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[3] CRS Report for Congress, *Homeland Security: Protecting Airspace in the National Capital Region* (September 1, 2005), at CRS-3.

[4] Aircraft Owners and Pilots Association ("AOPA") Fact Sheet, summarizing data gathered from FAA 5010 data and responses to questionnaires distributed to all 19 public-use airports within the ADIZ (September 2, 2004) [hereinafter "AOPA Fact Sheet"]. A copy is included with these comments as Attachment A.

[5] AOPA Fact Sheet.

[6] In discussing the ADIZ, FAA spokesman Greg Martin said, "I think it was our intention all along that [flight] conditions would match up with the threat level." Russ Niles, *Matching TFRs to the Threat*, AVWeb, March 3, 2002 [hereinafter "Niles"], *available at* www.avweb.com.

[7] DHS Website: Threats and Protection Advisory System, *at* http://www.dhs.gov/dhspublic/display?theme=29 (last visited March 31, 2005); Christopher Lee and Sara Kehaulani Goo, *Terror Index is Lowered to Yellow*, THE WASHINGTON POST, February 28, 2003, at A01.

- The aircraft must be equipped with an operable two-way radio capable of communicating with Air Traffic Control ("ATC") on appropriate radio frequencies.

- The flight crew must establish two-way radio communications with the appropriate ATC facility before operating in the ADIZ, and must maintain the capability of continuing two-way radio communications with the appropriate ATC facility while operating in the ADIZ. Aircraft may be exempted from the ATC communication requirement, provided they monitor the airport Common Traffic Advisory Frequency ("CTAF"). A CTAF is a frequency designated for communicating airport advisories in operations to or from an airport without an operating control tower.

- Prior to operating within Class B, C, or D airspace that is within the ADIZ, the flight crew must receive a separate ATC clearance to enter the Class B, C, or D airspace.

- The aircraft must be equipped with an operating transponder with automatic altitude reporting capability.

- Prior to operating the aircraft in the ADIZ, the flight crew must obtain a discrete transponder code from ATC.

- The aircraft's transponder must continuously transmit the ATC-issued discrete transponder code while the aircraft is operating in the ADIZ.

- Prior to operating an aircraft in the ADIZ, the pilot must file a flight plan with an Automated Flight Service Station ("AFSS"), must activate the flight plan prior to takeoff or prior to entering the ADIZ, and must close the flight plan upon landing or leaving the ADIZ.[8]

While those procedures may not seem overly burdensome in theory, they have been very burdensome in practice, due primarily to the fact that the Air Traffic Control system was never designed, and is not currently staffed, to handle the extremely large number of aircraft that are now subject to the ADIZ requirements.

The concept of an ADIZ originated during the Cold War era. In 1950, in response to the perceived threat of a Soviet air attack, the United States created a military buffer zone extending approximately 12 nautical miles offshore and surrounding the entire perimeter of the lower 48 states, Alaska, Guam and Hawaii.[9] Within the ADIZ, unidentified aircraft approaching U.S.

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[8] *ADIZ Flight Plan Requirements*, 14 C.F.R. § 99.11 (2004); *see also* FDC NOTAM 3/2126 (effective March 18, 2003). The same procedures, along with specific authorization to enter, are required inside the No Fly Zone.

[9] *Designated Air Defense Identification Zones*, 14 C.F.R. §§ 99.41-.47 (2004); Aviation Glossary "ADIZ", *at* http://www.aerofiles.com/glossary.html (last visited March 31, 2005); *see also* David F. Winkler, *Searching the Skies: The Legacy of the United States Cold War Defense Radar Program*, for the U.S. Air force Air Combat Command (June 1997) ("Winkler").

airspace would be interrogated by radio. If the radio interrogation failed to identify the aircraft, the Air Force would launch interceptor aircraft to identify the intruder visually.[10]

Fifty-five years later, the ADIZ around the United States still exists, but technological and operational advances provide far more sophisticated mechanisms for tracking and identifying aircraft than radio interrogation. Just as importantly, since September 11, 2001, there have been enormous improvements in civil aviation security. Nonetheless, the Washington area ADIZ (presently the only ADIZ inside U.S. borders) relies on essentially the same communication and identification mechanisms that were developed during the Cold War.

Considering that historical background the Washington, D.C. ADIZ raises a very serious question for pilots across the country: "Have the terrorists won when we apply security requirements internally that are designed to protect our borders?"

As explained in Part II below, the procedural requirements of the Washington ADIZ contribute little to aviation security. However, they impose substantial burdens on general aviation pilots who want to traverse the area covered by the ADIZ or conduct operations within it. The ADIZ also imposes substantial burdens on the FAA, diverting it from its primary mission of aviation safety.

The general aviation community has been a strong supporter of enhanced aviation security measures to combat terrorist threats, and AOPA has not ever suggested in any way that the security of the Washington, D.C. area should be jeopardized or reduced. Therefore, the real issue is not *whether* to ensure aviation security, but *how* to ensure security. Before deciding whether to make current ADIZ requirements permanent, the FAA should obtain expert advice on whether those requirements could be modified to reduce the burden on all affected parties, while maintaining an equivalent level of security.

Before deciding what security measures are appropriate, it is standard procedure to analyze the security threat, determine the likelihood of various possible threat scenarios, and then balance the incremental security benefit of each of the proposed measures against the negative impact of the proposed measures on legitimate activities, and on the local or national economy. No such analysis was conducted in 2003 before the Washington area ADIZ was imposed, and the U.S. Government Accountability Office ("GAO") has confirmed that the Government did not conduct any such analysis after the President declared the end of major combat in Iraq and DHS lowered the National Threat Level to Yellow.[11] No such analysis is contained in, or even referenced by the NPRM. While the NPRM references intelligence reports, it makes no attempt to perform an actual threat analysis, does not indicate what particular threat scenario is most likely, and does not analyze at all whether the ADIZ requirements currently in place provide any actual security benefit.

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[10] Winkler at 5.

[11] General Aviation Security, *Increased Federal Oversight Is Needed, But Continued Partnership With The Private Sector Is Critical To Long-Term Success.* U.S. Gov't Accountability Office, Report to the House Committee on Appropriations, Subcommittee on Homeland Security, GA0-05-144 [hereinafter "GAO Report"], at 38 (November 2004).

The application of the ADIZ requirements to small general aviation aircraft has never been evaluated using a rigorous threat analysis, taking into account the reduced risk posed by such aircraft, and focusing on the most likely threat scenario. Before issuing any final rule, the FAA should seriously consider whether there are alternative means to provide an equivalent level of security, while reducing the operational and economic burdens on the general aviation community and on the FAA.

II. THE ADIZ REQUIREMENTS SHOULD BE CHANGED

A. The Rulemaking Fails To Meet The Applicable Legal Standards.

Before issuing a final rule, in addition to complying with the Administrative Procedure Act, the FAA must also satisfy the requirements of the Unfunded Mandates Reform Act of 1995 ("UMRA") and Executive Order No. 12866, 58 Fed. Reg. 51735 (September 30, 1993) ("EO 12866").

In considering applicability of the UMRA, the NPRM concludes that the proposed rule does not impose costs exceeding the $120.7 million threshold. The NPRM reaches that conclusion after estimating the private sector cost associated with the rule to be $296 million over a ten year period.[12] With respect to EO 12866, the NPRM concedes that the proposed rule would be "significant regulatory action."

As discussed in Part III, AOPA has made an independent calculation of the private sector costs associated with the impacts of the ADIZ and estimates those costs to be at least $43 million annually, significantly more than the FAA's estimate. AOPA suggests that, because the NPRM acknowledges that the rule imposes very significant costs on the federal government as well as the private sector, and because the requirements of EO 12866 are essentially the same as those of UMRA, the FAA perform the same analysis that it would perform if it had concluded that UMRA were applicable.

If a rule is subject to UMRA, the agency must "identify and consider a reasonable number of regulatory alternatives" and "select the least costly, most cost-effective or least burdensome alternative that achieves" the rule's objectives.[13] An agency that fails to perform the cost/benefit analysis as required by Section 1532 may be compelled by a reviewing court to perform the analysis and prepare a written report.[14]

Like UMRA, EO 12866 also requires that an agency must complete and consider a cost/benefit analysis prior to issuing a final rule. EO 12866 requires agencies to "assess both the costs and the benefits of the intended regulation and, recognizing that some costs and benefits are

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[12] Notice of Proposed Rulemaking entitled "Washington, DC Metropolitan Area Special Flight Rules Area; Proposed Rule," Docket Number FAA-2003-17005, 70 Fed. Reg. 45250 (August 4, 2005) at 45257.

[13] 2 U.S.C. § 1535(a).

[14] 2 U.S.C. § 1571(a)(2)(B).

difficult to quantify, propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs."[15] EO 12866 also requires an agency to "identify and assess alternative forms of regulation" and "tailor its regulations to impose the least burden on society, including individuals, businesses of differing sizes, and other entities (including small communities and governmental entities), consistent with obtaining the regulatory objectives."[16] The analysis required by EO 12866 is mandatory.

The similar analyses under UMRA and EO 12866 are factors that a reviewing court may consider in determining whether the final rule is arbitrary or capricious under the Administrative Procedure Act, 5 U.S.C. § 706(2).[17] In *Thompson*, the court evaluated a cost/benefit analysis under the Regulatory Flexibility Act and concluded:

> For example, if a defective regulatory flexibility analysis caused an agency to underestimate the harm inflicted upon small business to such a degree that, when adjustment is made for the error, that harm clearly outweighs the claimed benefits of the rule, then the rule must be set aside. It is set aside, however, not because the regulatory flexibility analysis was defective, but because the mistaken premise reflected in the regulatory flexibility analysis deprives the rule of its required rational support, and thus causes it to violate . . . the general legal requirement of reasoned, nonarbitrary decision making."[18]

The position articulated by the D.C. Circuit is in accord with the Supreme Court's policy of undertaking a searching inquiry into cost/benefit analyses. In *Motor Vehicle Manufacturer's Ass'n, Inc. v. State Farm Mutual Automobile Insurance Co.*, 463 U.S. 29, 40 (1983) the Court recognized that the cost/benefit analysis could be subjected to judicial review as one factor in determining compliance with the APA. In *State Farm*, the Court rejected the Secretary of Transportation's analysis and concluded that the agency had not properly evaluated the costs and benefits and had not properly explained its rationale.[19]

In this case, the analysis set forth in the NPRM is not sufficient to satisfy those legal requirements because it does not adequately analyze costs and benefits, and because it does not consider the alternative of modifying the ADIZ procedural requirements that presently exist.

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[15] Executive Order No. 12866, Section 1(b)(6).

[16] Executive Order No. 12866, Section 1(b)(8) & (11).

[17] *See Thompson v. Clark*, 741 F.2d 401, 404-08 (D.C. Cir. 1984); s*ee also Geller v. FCC*, 707 F.2d 1413, 1440 (D.C. Cir 1983) (finding that a cost/benefit analysis is within the purview of the agency but concluding that the agency had neither understood the relevant factors to be considered nor provided an adequate explanation of its reasoning process).

[18] *Thompson v. Clark*, 741 F.2d 401, 405 (D.C. Cir. 1984).

[19] *Id.*

B. AOPA's Members Report That The ADIZ Has Created Significant Operational, Administrative And Safety-Related Problems.

At the outset, it is important for the FAA to understand and consider the real-world impact of the ADIZ operational requirements. As of November 2, 2005, the FAA Docket has received more than 17,400 comments on this NPRM – 90% of which have been submitted by members living outside the Washington, D.C. area. This response demonstrates the importance of the issue to pilots nationwide who are concerned that a hastily conceived ADIZ, or SFRA, will be established in other major cities.

AOPA has reviewed the comments on file, and notes that several common themes have emerged. Speaking from personal experience, our members have pointed out the complicated, cumbersome design of the ADIZ, which causes some pilots to avoid conducting business in the area, resulting in a continuing loss of economic activity. They have specifically described the additional burden the ADIZ causes for both pilots and air traffic controllers. They also verify the safety problems it creates, describing wait times and forced rerouting that causes unplanned burning of expensive fuel. They note the fact that experts have agreed that light aircraft traveling at slow speeds do not pose a serious national security threat, as illustrated by the fact that relatively little damage occurred in the January 5, 2002, incident in which a ninth grade student flew into a Tampa, Florida office tower.

Rather than relying solely on drawings and theoretical calculations, the FAA, Department of Defense and Homeland Security officials should listen directly to the real-world experiences of the general aviation community regarding the practical difficulties the existing ADIZ requirements cause to pilots operating in the National Capital Area. The specific problems caused by those requirements are discussed below.

1. Negative Impact On The Air Traffic Control System

The current ATC infrastructure was designed and staffed to control only those aircraft flying under Instrument Flight Rules ("IFR"), which historically represent approximately 33 percent of the total number of aircraft in the airspace.[20] In 2003, however, when the ADIZ was hastily implemented, the number of aircraft that ATC had to control tripled, since flight plans would now be required for all aircraft. The flight plan requirement has increased the workload for controllers by approximately 2,000 operations per day, and consequently often diverts controllers from their primary responsibility of IFR traffic separation. The lack of consistency in handling aircraft subject to ADIZ requirements creates confusion for pilots and controllers alike. The ATC system was not designed, and is not presently equipped, to monitor and control the substantial increase in the number of aircraft that must be tracked as a result of the ADIZ requirements.[21] The additional tracking burden causes significant delays for aircraft and increases the risk of ATC errors.

[20] FDC NOTAM 3/1106.

[21] AOPA Fact Sheet.

Significant safety concerns also arise for pilots in the air resulting from confusion over procedures, delays and system overload. According to John Carr, President of the National Air Traffic Controllers Association (NATCA),

> Every air traffic controller at Potomac TRACON handles the ADIZ in a different manner, due to the lack of proper guidelines from the FAA. Pilots get confused on what they should expect because today, they were told something different than what they were told yesterday. Pilots are forced to constantly ensure they are on the correct transponder codes and talking to ATC. This has taken their eyes out of the window, where they should be looking for other traffic to see and avoid. Pilots, under the current NOTAM, are forced to keep in contact with ATC. By doing this, pilots are not able to change to the local Unicom at their destination to see who is in the pattern in a timely manner. This creates an unsafe situation.
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> The ADIZ has added approximately 30% more traffic to the Potomac TRACON alone, yet controller-staffing levels remain the same as they were prior to the ADIZ implementation. The increased workload and unsatisfactory staffing levels have actually served to decrease the margin of safety and security in the airspace over the National Capital region.[22]

In response to that problem, on May 1, 2005, the FAA agreed that controllers have no responsibility to provide VFR aircraft on ADIZ flight plans any services, such as traffic separation advisories and safety alerts.[23] In addition to the already complex requirements imposed on VFR aircraft operating in the ADIZ, this procedural change leaves the general aviation community with the substantial burden of maintaining safety and separation without any assistance from ATC.

2. The Adverse Effects Of The Flight Plan Requirement.

> The inability of the system to handle the administrative demands of the ADIZ is evidenced by the extensive hold times pilots have experienced while trying to call an Automated Flight Service Station (AFSS) to file a flight plan and trying to obtain a discrete beacon code from ATC. Due to the volume of traffic within the ADIZ, pilots report delays ranging from 10 minutes to more than two hours.[24] Additionally, aircraft requiring IFR release

[22] NATCA Written Comments, Docket No. FAA-2003-17005, dated October 31, 2005.

[23] Potomac Notice 7110.35A, effective May 1, 2005 at 7. Proceedures, b. Radar Procedures.

[24] Internal AOPA Report, Flight Restrictions Economic and Operational Impacts (September 2, 2004) (based on reports submitted on-line to an e-mail comment box monitored by AOPA).

clearances at non-towered airports are delayed because of the additional VFR traffic, and report having difficulty-contacting ATC.

3. Delays In Obtaining A Discrete Transponder Code.

Pilots are experiencing extensive delays in obtaining discrete transponder codes. As mentioned previously, the sheer volume of calls to ATC via landlines has led to delays that range from 10 minutes to more than 2 hours. Part of this problem stems from the fact that there are only two designated phone lines to handle all calls, and even if more lines were available, there is not a sufficient controller workforce to process incoming calls in a timely manner. Pilots attempting to obtain discrete codes via aircraft radio also experience delays of up to 45 minutes, while holding at the runway threshold, with the engine running.[25] Larger corporate aircraft, requiring IFR clearances at non-towered airports, are also subject to delays as a result of the backlog caused by the ADIZ requirements. Because of controller overload, pilots attempting to obtain a discrete code prior to operating in the ADIZ often face lengthy hold times.[26] Finally, aircraft already airborne and trying to get into the ADIZ are subject to delays as well, and are forced to circle outside the ADIZ while waiting for a discrete beacon code. This airborne delay problem exacerbates congestion and creates potential air safety problems.

In the summer of 2003, one pilot faced an unexpected delay in entering the ADIZ and was forced to make an emergency landing. Also in 2003, a medevac helicopter pilot reported, "We have discrete transponder codes, so only an initial radio contact is necessary. However, we have had numerous problems with the initial contact. On this date, I had to circle two minutes over the hospital I lifted off from with a patient on board. It delayed precious minutes for this patient."[27]

In early 2004, a near mid-air collision occurred as pilots were awaiting transponder codes to enter the ADIZ.[28] As AOPA has pointed out previously, "If the ADIZ system can't even accommodate approved and medically necessary flight operations, then something is terribly wrong."[29]

4. The Higher Level Of Expertise Required For More Complex Two-Way Communication Requirements.

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[25] *Id*. Some of these delays may be attributable to the fact that, at times, the demand for discrete transponder codes exceeds the number of codes that can be generated using available technology.

[26] *Id.*

[27] AOPA Press Release, Pending AOPA-Backed Bill Would Require Rejustification of ADIZ (August 14, 2003) (based on reports submitted on-line to an e-mail comment box monitored by AOPA), *available at* http://www.aopa.org.

[28] *Id.*

[29] AOPA Press release, *supra*.

Many VFR pilots have difficulty with the operational requirements of the ADIZ. As noted above, the procedures mirror the requirements normally applied to the more complex and demanding IFR operations. That rating is one of the most difficult to initially obtain and to retain currency. Essentially, the only IFR requirement not imposed by the ADIZ is flying by visual references to instruments. Unlike IFR-rated pilots, those operating VFR have not undergone the more extensive training and testing required to obtain an IFR rating, and this has created a situation in which VFR pilots are inadvertently violating the ADIZ rules.

C. The NPRM Does Not Consider All Of The Relevant Factors Bearing On Economic Costs.

While the NPRM makes an attempt to enumerate the different types of economic costs that the ADIZ requirements impose on the general aviation community and on the government, it does not consider and properly evaluate all of the relevant factors. AOPA has retained the independent consulting firms of Aviation Management Consulting Group and Martin Associates to perform a study and prepare a report regarding the NPRM's true costs. The two firms have extensive experience in gathering and analyzing this type of data. Martin Associates used the same economic impact methodology to evaluate the ADIZ as it has for major international airports including Dulles, Baltimore-Washington, Hartsfield Atlanta, Miami, San Francisco, and Sea-Tac International airports. The report's Executive Summary is included with these comments as Attachment B.

As the FAA is aware, the September 11, 2001 terrorist attacks and subsequent grounding of all aircraft, followed by nationwide restrictions limiting the use of general aviation aircraft, caused significant economic damage to the aviation industry. With the relaxation of those restrictions, the industry began to recover. However, AOPA's independently conducted study shows that the February 2003 imposition of the airspace restrictions by the Washington, D.C. ADIZ throttled the economic recovery of the airports and the associated small businesses within the 3,000 square mile footprint of the ADIZ.[30]

Ironically, while the ADIZ was intended to protect Washington, it is having the harshest impact on tiny airstrips, such as Annapolis, that host small aircraft with the least capacity to pose any security risk. According to a business owner at Lee Airport, a 2,500-foot airstrip in Annapolis, Maryland, "People are avoiding the ADIZ because of the horror stories that are out there. [Pilots] call for instruction and when they find out it is within the ADIZ they frequently decline coming. I have also lost four new aircraft sales totaling about $1 million because the people do not want to fly into Annapolis. They just tell me the ADIZ is too intimidating."[31]

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[30] Final Report, Executive Summary, entitled "Washington D.C. Area Defense Identification Zone (ADIZ) Impact Study" prepared by Aviation Management Consulting Group, Inc. and Martin Associates [hereinafter "Executive Summary"] dated October 28, 2005, at 1. "A copy is included with these comments as Attachment B."

[31] Analysis entitled "Economic Impact of ADIZ Restriction – Comments from Subject Airports" prepared by Aviation Management Consulting Group, Inc. and Martin Associates [hereinafter "Subject Airports Analysis"] September 20, 2005 (on file with AOPA).

Reductions in the number of aircraft based within the ADIZ, the decrease in flight activity, and a decrease in transient traffic have had a severe effect. Small businesses dependent on providing services to pilots of light aircraft in the Washington, D.C. area are losing nearly $43 million per year in wages, revenue, taxes and local spending, and some businesses have simply closed.[32] Over 130 jobs have been lost, sales of aviation gasoline are down by nearly 20 percent, flight schools have closed, and many pilots have either stopped flying or have moved out of the area.[33] Total revenue at the impacted airports ($258 million in 2002) dropped $28.5 million (11 percent) since the ADIZ imposition.[34] If the ADIZ is not modified, it could permanently jeopardize the economic viability of general aviation operations in the Washington area.

A flight school in Leesburg, VA reports, "During 2003 and 2004, seven of our 35 flight instructors received violation notices from the FAA for transponder irregularities. Currently our business is having difficulty finding enough instructors. They are concerned about damage to their career prospects because of ADIZ violations." The same school also reports a decline in aircraft rentals, a common way for new pilots and others who do not own aircraft to build experience. "Renters are very vocal in their concern, and it appears to account for much of the decline in their business."[35]

A flight school in Manassas, VA also reports a decline in instruction and rentals. "Due to the restrictions, added time required for flight training, added time to fly outside the ADIZ for training, and possible infractions for violations, students have stopped renting airplanes, and prospective students have been turned off."[36]

The data indicates that the ADIZ is hindering – and in some cases reversing – the recovery of airports and business in the National Capital Region, causing them to lag behind both the national trends, and the trends for airports in proximity to the ADIZ.

The hardship caused by the ADIZ is not borne solely by general aviation operators and pilots. General aviation aircraft are used to transport critical-care medical patients, donor organs and blood supplies. General aviation also helps to provide security for electric transmission lines and petroleum and natural gas pipelines, and transports overnight cargo and financial documents. Thus, the increased costs and operational constraints imposed on the general aviation industry as a result of the ADIZ will be reflected in decreased overall economic growth for the region.

The ADIZ also diverts substantial sums from the government that could be better spent on alternative measures. The NPRM's analysis indicates that the Washington area ADIZ will

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[32] Executive Summary at 1-4.

[33] Executive Summary at 1-4.

[34] Executive Summary at 1.

[35] Subject Airports Analysis.

[36] Subject Airports Analysis.

add more than $128.7 million in ten-year, discounted costs to the FAA.[37] Federal and State Governments also lose tax revenue as a result of the decline in general aviation business. Congress has recognized the harm to general aviation, and has authorized the Secretary of Transportation to disburse up to $100,000,000 to General Aviation entities for security costs incurred and revenue foregone as a result of Government restrictions imposed after September 11, 2001.[38] While this formal recognition of the harm to general aviation is important, the real solution is to provide permanent relief by modifying the ADIZ to reduce the hardship to general aviation, while providing a comparable level of security.

As the NPRM notes several times, the ADIZ requirements impose a burden not only on the general aviation community, but also on the FAA, due to the increased workload that they impose on controllers. The Air Traffic Control system in the Washington, D.C. area was not designed with the ADIZ requirements in mind, and the system is not staffed with an adequate number of controllers to handle the increased workload imposed by the ADIZ. Thus, some reasonable modification of the requirements would benefit the Government as well as the general aviation community.

D. The Security Benefits Of The ADIZ Requirements May Be Overstated, Because The Government Has Never Performed A Detailed Threat Assessment Justifying The ADIZ.

The NPRM state that, according to intelligence reports, "terrorists continue to be interested in using general aviation aircraft as part of another attack on the U.S. or facilitation of activities."[39] Notwithstanding the reference to intelligence reports, the NPRM does not provide any analysis of the likelihood of the different major threat scenarios or an analysis of whether the operational requirements imposed by the ADIZ result in any measurable reduction in the most likely threat scenarios. Before issuing a final rule, the FAA and the affected security and defense agencies should complete that analysis and seriously evaluate the results.

Before deciding what security measures are appropriate, it is standard procedure to analyze the security threat, and then balance the security benefit of the proposed measures against the negative impact of the proposed measures on legitimate activities, and on the local or national economy. To date, there has been no systematic and detailed assessment analyzing the security threat posed by general aviation in the Washington area.[40] In 2003, TSA Administrator James M. Loy testified in a congressional hearing that, following the attacks of September 11, some security officials might have overstated the threat from general aviation aircraft.[41] In 2004,

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[37] NPRM at 45256.

[38] Vision 100 -- Century of Aviation Reauthorization Act, 49 U.S.C.A. § 40101 (Supp. 2004).

[39] NPRM at 45252.

[40] GAO Report at 38.

[41] *Hearing on the Transportation Security Administration's Perspective on Aviation Security Before the House Committee on Transportation and Infrastructure, Subcommittee on Aviation* 108th Cong. (October 16, 2003)

TSA Administrator David Stone told a congressional panel, "We are currently not aware of any specific information regarding terrorist plans to use general aviation or charter aircraft to strike targets in the Washington metropolitan region."[42] Also in 2004, Jonathan Fleming, TSA's COO, testified that he was unaware of any specific, credible threat that terrorists will use general aviation aircraft to carry out an attack on Washington.[43]

In theory, most general aviation aircraft do not pose a significant threat because they are capable of causing only minimal damage. The GAO has concluded that "the small size, lack of fuel capacity, and minimal destructive power of most general aviation aircraft make them unattractive to terrorists and, thereby, reduce the possibility of threat associated with their misuse."[44] More than 70 percent of general aviation aircraft are small, single-engine aircraft with six or fewer seats, typically weighing less than a Honda Civic, and with less cargo carrying capacity.[45] Reduced cargo carrying capacity makes an aircraft less desirable for terrorist purposes, because it cannot carry enough explosives or hazardous materials to carry out a large-scale attack.

If part of the threat analysis is an assumption that the aircraft will be loaded with high explosives to increase its destructive power, then that assumption ignores an entirely separate and equally important set of security measures that are designed to limit the ability of terrorists to obtain explosives legally. As of May 2003, any person wishing to obtain explosives must first submit a photograph and fingerprints to the Bureau of Alcohol, Tobacco and Firearms to receive a permit for the explosives. Recent legislation also expands the category of persons who are prohibited from obtaining explosives to include aliens, persons dishonorably discharged from the military, and those who have renounced U.S. citizenship.[46]

It has been asserted that the threat from general aviation aircraft is demonstrated by the fact that, during 2002, two small general aviation aircraft were deliberately piloted into office buildings in Milan, Italy and Tampa, Florida. However, neither incident involved terrorism, and each caused only minor damage. Thus, rather than demonstrating the likelihood of a general aviation threat, both incidents provide evidence of the unsuitability of general aviation aircraft for terrorist purposes.

[hereinafter "*TSA Aviation Security Perspective Hearing*"] (Statement of Admiral James M. Loy, Administrator, TSA).

[42] *Field Hearing on Opening DCA to General Aviation* (Statement of David M. Stone, Acting TSA Administrator).

[43] *See Hearing on National Capital Region Air Space Control: A Review of the Issues Surrounding the June 9, 2004 Flight of "N24SP" Before the Committee on Transportation and Infrastructure, Subcommittee on Aviation* 108th Cong. 4 (July 9, 2004) [hereinafter "*Hearing on National Capiaol Region Air Space Control*"] (Statement of Jonathan Fleming, Chief Operating Officer, TSA).

[44] GAO Report at 15-16.

[45] Letter from AOPA Pres. Phil Boyer to Andrew Heyward, CBS News (January 15, 2004), *available at* http://www.aopa.org/whatsnew/newsitems/2004/04-1-034x_letter.html?PF.

[46] Safe Explosives Act, 18 U.S.C. §§ 1122.1123 (2003).

It has also been argued that general aviation aircraft are inherently a threat because they are readily available, relatively inexpensive and require less skill and training to fly than larger aircraft. However, those assertions overlook the existing and proposed safeguards that restrict access to general aviation aircraft. First, the FAA has implemented a number of measures designed to prevent the unauthorized use of aircraft at flight schools and airports, such as monitoring student pilots, controlling aircraft keys, ensuring that aircraft are locked, and requiring awareness training for flight school employees. AOPA's own TSA-endorsed "Airport Watch" Program also contributes to airport security, providing a hotline for reporting suspicious activities and enlisting more than 550,000 pilots, plus non-pilots who work at the airports, to watch for and report suspicious activity at general aviation airports.[47]

Airports also have voluntarily implemented security guidelines developed by the TSA, including posting signs at general aviation airports asking pilots to help prevent unauthorized use of aircraft, securing unattended aircraft with door locks, keyed ignitions and locked hangars, controlling vehicle access, installing outdoor lighting in parking, hangar and fuel storage areas, and allowing space at the airport for local law enforcement to provide an added security presence.[48] These voluntary measures have substantially mitigated the risk that terrorists will gain unauthorized access to general aviation aircraft.

Certainly the security of the President, the Congress, the general population of the Washington area, and surrounding sensitive sites are paramount, but security measures such as the ADIZ should be imposed only after a careful analysis of the threat and the actual benefits of the proposed security measures. From a governmental perspective, because both public and private resources are limited, security measures should not be imposed without a careful cost-benefit analysis.[49] Particularly where the anticipated costs are high, as in this case, it is important to look critically at whether the proposed security measures really provide the anticipated benefit, and whether less intrusive measures could provide the same benefit at less cost. No Government agency has, as yet, produced a rigorous analysis of those issues, and the FAA should not adopt any final rule until such an analysis is complete.

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[47] GAO Report at 43-44. The Airport Watch Program was organized in 2002 by a joint effort between AOPA and TSA. Its goal is to educate and inform the aviation community on security issues. Former DHS Secretary Tom Ridge called the Airport Watch Program "a great example of government and the private sector working together to secure the homeland": *Homeland Security Chief Tom Ridge Tapes Opening for AOPA's Airport Watch*, AOPA Press Release (Dec. 2002) *available at* http://www.aopa.org.

[48] *Security Guidelines for General Aviation Airports*, TSA Information Publication A-001 (May 2004), *available at* http://www.tsa.gov.

[49] *Id.*

E. The FAA Has Failed To Comply With Congressional ADIZ Reporting Requirements And The NPRM Does Not Analyze Whether All Of The ADIZ Requirements Must Be Applied To All Aircraft.

With respect to the analysis of anticipated benefits of making the ADIZ permanent, the NPRM uses the wrong methodology. The NPRM assumes that the ADIZ is responsible for 100% of the benefits attributable to securing the Washington area airspace, such as the protection of the President, the Congress and other sensitive sites. In fact, however, a wide variety of security measures contribute to the overall security of the airspace around Washington. Those security measures include such things as the FRZ, the new laser warning system, the military and Immigration, Customs Enforcement (ICE) aircraft available to intercept intruders, the missile batteries installed at several locations in the area, and the flight restrictions on operations at local general aviation airports. Thus, the correct methodology for analyzing the benefits attributable to the ADIZ alone would examine the *incremental benefit* provided by each of the ADIZ procedural requirements, rather than the cumulative benefit provided by all airspace security measures.

In December 2003, Congress recognized problems with the ADIZ when it enacted a law requiring the FAA to justify the security measure in a written report within 30 days, and identify changes that could improve operational efficiency.[50] The statute also requires the FAA to submit updated reports every 60 days until the ADIZ is rescinded.[51] TSA Administrator James M. Loy told a congressional panel that the TSA, FAA and other agencies were reviewing FAA NOTAMs to assess their security value and would advise as to whether certain airspace restrictions "add real security value."[52] No such analysis has ever been publicly released, and no such analysis is presented in the NPRM.

GAO found that the FAA transmitted a single report to Congress in June 2004, but that it "did not cite specific criteria or the process used to determine the continuing need for the [TFRs]."[53] Instead, the FAA "based its report primarily on unspecified security reasons submitted by TSA."[54] The NPRM recites the same sort of simplistic rationale, stating, "The Department of Defense and Homeland Security requested that the FAA Administrator [codify the ADIZ restrictions] to support their continuing mission to protect national assets in the National Capital Region."[55] The most specific statement of the rationale for codifying the restrictions is that the "agencies responsible for intercepting intruders … believe that the existing

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[50] Vision 100.

[51] Vision 100 at § 602.

[52] *TSA Aviation Security Perspective Hearing* (Statement of Admiral James M. Loy, Administrator, TSA).

[53] GAO Report at 38.

[54] GAO Report at 38. AOPA has been unable to determine whether the FAA has complied with the requirement that it update its report every 60 days.

[55] NPRM at 45252.

airspace dimensions and procedures are the minimum acceptable to successfully accomplish their missions."[56]

In comments submitted in this Docket, Members of Congress have noted the FAA's blatant disregard of the reporting requirement that they deemed important enough to enact into law. As U.S. Senator James Inhofe wrote, "What is most troubling about this [NPRM] is that the FAA is proposing to make permanent the ADIZ without addressing the necessary operational concerns to ease the burden on pilots and air traffic controllers. PL 108-176, "Vision 100 – Century of Aviation Reauthorization Act," required that FAA provide Congress with justifications for the ADIZ every 60 days, which were to include proposed changes to improve operations. To my knowledge we are still waiting these justifications."[57]

In 2004, the GAO criticized the FAA for failing to "establish a systematic process for periodically reviewing the continuing need for TFRs over the National Capital Region."[58] The GAO found that the FAA did not conduct routine assessments of the continuing need for indefinite flight restrictions, such as the ADIZ, based on a consistent, documented set of criteria, and that the FAA has no written procedures or criteria for revalidating the need for such restrictions on a periodic basis.[59] Nor has it made any assessment of the operational and economic impact of the ADIZ restrictions on general aviation.[60] Finally, GAO recommended that the TSA develop a risk management plan to identify threats and vulnerabilities and improve communications on actions to be taken in reacting to identified threats.[61] As of this date, however, none of these actions have been taken. AOPA believes that logical analysis would indicate that a "one size fits all" approach is not necessary or appropriate.

F. Unintentional Incursions Are Not Security Threats.

While the ADIZ helps protect against attackers who do not plan, or for some reason choose to disregard the ADIZ requirements, virtually all of the actions related to the ADIZ is identifying innocent pilots who stray into the ADIZ accidentally. Those kinds of unintentional incursions present no security threat, so there is no security benefit in maintaining administrative requirements that make them illegal. To the contrary, they happen so frequently (more than 2000 times in the last few years) that they indicate a real problem with the ADIZ itself.

Licensed pilots do not intentionally violate FAA requirements, risking loss of their certificates or other enforcement actions, and ultimately risking being shot down. However,

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[56] NPRM at 45252.

[57] Letter from Sen. James M. Inhofe to Administrator Marion Blakey, October 24, 2005 *available at* http://www.aopa.org/whatsnew/newsitems/2005/051025adiz-inhofe.pdf.

[58] GAO Report at 38.

[59] *Id.*

[60] *Id.*

[61] GAO Report at 52.

because the ADIZ is unique, is very large, and has irregular boundaries, it is often difficult for pilots unfamiliar with the area to identify the ADIZ boundaries from the air. Rather than indicating a serious security problem, the large number of incursions indicates a need to reexamine the ADIZ itself.

Unintentional violations of the ADIZ airspace occur on an almost daily basis, raising the question of whether the ADIZ provides any meaningful increase in security. For example, more than 30 percent of the targets of investigation are procedural violations related to the physical "dialing in" of the transponder code. These "rolling early" or "rolling late" transponder problems are not airspace violations. Even with military aircraft patrolling the skies, four commercial airliners and a medical helicopter crossed into Washington's No Fly Zone in the first three months after September 11, 2001.[62] As of July 2005, the TSA reported that, since the ADIZ was created in February 2003, there had been nearly 3,500 unintentional violations by general aviation pilots.[63] Only one such violation was intentional and none have been linked to terrorists.[64] Violations of the Washington area ADIZ constitute more than 40 percent of all TFR violations since September 11, 2001.[65] The Chairman of the House Aviation Subcommittee, Rep. John Mica, has stated that fewer than half of the flights that have been responsible for ADIZ violations have been identified.[66] If over half of the aircraft that violated the ADIZ requirements were never even identified, it is hard to understand how the ADIZ helps to prevent possible attackers from entering critical portions of the Washington area air space.

The chief justification for the ADIZ is that it provides early warning of potential threats by increasing the time available to identify and intercept potential attackers. While this idea has conceptual appeal, there has been no public discussion or analysis of exactly how, or whether, each of the existing ADIZ procedures actually contributes to that objective in any measurable way. After a comprehensive review of all publicly available information, AOPA has been unable to find any systematic assessment of potential threats or calculations indicating the amount of time needed to detect and intercept a threat. More particularly, AOPA has been unable to locate any specific explanation of the way in which each of the procedural requirements for operating within the ADIZ contributes to the security of the National Capital Region. In addition to reexamining the concept of the ADIZ, each of the separate ADIZ

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[62] *D.C. Airspace Violations Not Unusual*, CBS News, April 4, 2002, *available at* http://www.cbsnews.com (last visited April 8, 2005).

[63] *Hearing on Controlling Restricted Airspace Before the House Committee on Government Reform* 109th Cong. (July 21, 2005) (Statement of Ken Kasprisin, Acting Assistant Secretary, Transportation Security Administration).

[64] *Hearing on Controlling Restricted Airspace Before the House Committee on Government Reform* 109th Cong. (July 21, 2005) (Statement of Robert Sturgell, Deputy FAA Administrator).

[65] GAO Report at 36.

[66] *Field Hearing on Opening DCA to General Aviation* (Statement of Rep. John L. Mica, Chairman). Reportedly, TSA disputed that figure. Spencer S. Hsu, *House Panel Criticizes Region's No-Fly Zone*, THE WASHINGTON POST, July 9, 2004, at B01 ("Hsu"). The large number of violations also has imposed a substantial burden on the FAA to investigate each violation and determine appropriate sanctions, including license suspensions for pilots.

procedural requirements should be analyzed as well, to determine whether they provide any actual security benefit.

It has been asserted that the ADIZ provides security benefit by enabling controllers to quickly identify as potential threats any incoming aircraft that do not obey the ADIZ requirements. However, that benefit is almost purely theoretical, providing protection only against the least sophisticated intruders, who either do not know, or for reasons of mental incapacity, do not care, about the ADIZ. One of the stated goals of the NPRM is to reduce the number of inadvertent intrusions into the ADIZ, presumably by making explicit the threat of criminal prosecution.[67] However, it is presently public knowledge that intruders into the FRZ may be shot down, and any pilot who is unconcerned about the possibility of being shot down is unlikely to be concerned about criminal penalties.

G. The ADIZ Requirements Add Little Protection Against A Determined Attacker.

Dedicated terrorists, who pose the most serious threat, will presumably plan an attack in advance, and will take the time to learn the requirements and vulnerabilities of any security system.

The DHS Acting Under Secretary for Border and Transportation Security has acknowledged that the system "may not be geared to stop a determined attacker."[68] He said that the ADIZ is a result of a "political compromise between security and civilian aviation interests."[69] While it is clear that civilian aviation interests have been significantly compromised, it is far from clear whether there has been any significant improvement in security as a result.

Because there may not be enough time for fixed-wing fighters or helicopters to launch and intercept an aircraft that deviates from an ADIZ flight plan, a more effective defense mechanism is the strategically placed system of ground-to-air missiles. A missile requires less time to reach its target. The extra buffer space provided by the ADIZ is less relevant to the ability of the missile system to intercept a target once it is determined to be a threat. Therefore, the communication and identification requirements of the ADIZ become less and less relevant or necessary as the size and speed of the aircraft are decreased. The ADIZ requirements should be modified to focus on detection and interception of aircraft that present true threats, while reducing the burden on those that present little or no threat.

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[67] NPRM at 45253.

[68] Hsu, quoting R. Beardsworth.

[69] *Id*.

H. The NPRM Does Not Consider Reasonable Alternatives To Adopting All Of The Existing ADIZ Requirements.

AOPA is committed to working with both the DHS and FAA, and since the ADIZ was originally imposed, has suggested a number of alternatives. AOPA's suggestions and requests have been based on its knowledge of the Washington area airspace, local airports, and the needs of its members. AOPA's past recommendations, on behalf of the general aviation community, represent reasonable alternatives to the existing requirements, but they are not reflected in the NPRM proposing a permanent special Flight Rules Area.

As described above, the FAA is required to consider alternatives to any rule it proposes. However, the NPRM attempts to address this legal requirement by taking an "all or nothing" approach, framing the alternatives regarding the ADIZ as whether it should be completely eliminated or retained as is. In the discussion of those alternatives, the NPRM rejects the idea that the ADIZ could be eliminated entirely, but completely fails to consider whether the ADIZ requirements could be modified to better meet the needs of the affected parties while providing an equivalent level of security. The analysis of alternatives in the NPRM is conclusory, and appears to have been drafted to support the result preferred by Department of Defense and DHS.

In AOPA's view, the FAA's analysis of alternatives should consider the improvements in aviation security that have occurred since 2001, and should consider whether some combination of technological, procedural, or operational alternatives could be substituted for the ADIZ requirements currently in use. The key factors that the FAA should consider are set forth below.

1. Heightened Security Measures Since 2001 Have Greatly Improved Airspace Security.

In general, measures designed to deter, detect and disable terrorists before they get off the ground are more effective than attempts to disable terrorists once they are in the air. While a joint DHS/FBI Aviation Security Overview asserts that the "largely unregulated general aviation sector presents an area of potential concern for exploitation by terrorists," the overview does not analyze, or even mention, the many general aviation security measures that have been implemented since 2001.[70] The existing security framework places obstacles in the way of terrorists at many different levels − first by limiting their access to flight training, then by preventing them from obtaining or falsifying pilot certifications, and finally by preventing unauthorized access to general aviation aircraft. These security measures, combined with the existing 15-mile Flight Restricted Zone, provide a substantial level of security, and suggest that some of the current ADIZ requirements could be modified with no noticeable decrease in security.

The various rationales for the ADIZ that have been articulated to date all start with the assumption that a terrorist-controlled aircraft is in the air and on a course for the White House or another sensitive site. That fundamental premise fails to take into account the substantial

[70] *See Joint Special Assessment: Aviation Security Overview*, Office of Information Analysis [hereinafter "Aviation Security Overview"] at 16 (Feb. 25, 2005).

security measures that already exist that are designed to reduce the likelihood that a terrorist attacker will ever get that far. The entire area falls within Controlled Airspace, which by definition provides for air traffic control surveillance. Since 2001, the Government has worked with general aviation industry associations to establish a multi-layered system of security procedures to reduce the likelihood that a terrorist could successfully get off the ground.

First, in January 2003, the FAA issued a rule providing for security screening of current pilots and student pilots, and providing that if TSA determines that a pilot poses a national security threat, it can direct the FAA to revoke that pilot's certificate.[71] Thus, all pilots and student pilots are now subject to heightened security screening.

Second, a number of restrictions have been imposed on flight training, including a citizenship validation for U.S. citizens and a background check for non-U.S. citizens before an individual can receive flight training. Flight schools and aviation training centers notify and provide information, including fingerprints, to DHS before giving flight training to non-U.S. citizens,[72] and all non-U.S. citizens seeking flight training receive a background check by TSA.[73] As of July 2002, individuals seeking a U.S. pilot certificate on the basis of a foreign pilot certificate must first undergo a background check.[74] Finally, all flight school employees must undergo security awareness training.[75] These measures all make it more difficult for potential terrorists to obtain the training necessary to carry out an attack by air.

Third, to carry out an attack, a terrorist would first have to obtain access to an aircraft. In 2002, TSA instituted a requirement that it must approve any foreign-registered general aviation aircraft before it is allowed to enter U.S. airspace, and required foreign aircraft to provide complete passenger manifests.[76] In addition, since 2001, a number of steps have been taken to improve security at general aviation airports.[77] Working with general aviation industry associations, the TSA created "Security Guidelines for General Aviation Airports," providing a list of specific recommendations for pilots and airport personnel, addressing such issues as preventing unauthorized access, securing aircraft from theft, and increasing the presence of law

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[71] Security Disqualification, 14 C.F.R. § 63.14 (2005).

[72] 49 U.S.C. § 44939 (2003).

[73] 49 U.S.C. § 44939.

[74] 14 C.F.R. § 61.75 (2002).

[75] 49 U.S.C. § 44939.

[76] Aircraft of Foreign Registry, 19 C.F.R. § 122.54 (2002).

[77] GAO Report at 47-48; *see also Report of the Aviation Security Advisory Committee Working Group on General Aviation Airports Security*, TSA Report (October 1, 2003), [hereinafter *Aviation Security Advisory Committee Working Group Report*] *available at* http://www.tsa.gov/interweb/assetlibrary/ASAC_Working_Group_11-2003.pdf. TSA requested the Aviation Security Advisory Committee ("ASAC") establish a Working Group of industry participants to develop guidelines for security enhancements at General Aviation airports. This report lists their recommended guidelines.

enforcement.[78] AOPA's own Airport Watch Program addresses vulnerabilities at airports and trains pilots and airport personnel to spot and report suspicious activity.[79] Airport operators have voluntarily taken such measures as installing fencing and increasing police patrols at airports.[80] These measures have resulted in a sharp decrease in aircraft theft,[81] and have greatly reduced the opportunities for terrorists to gain unauthorized access to general aviation aircraft. Many states have also initiated licensing programs designed to enhance security at airports and aviation businesses.

Fourth, security improvements regarding pilot identification will make it more difficult for terrorists to falsify the necessary pilot certifications to get into the cockpit. As of October 2002, all pilots were required to carry some form of government-issued photo identification.[82] In July 2003, the FAA began to issue new counterfeit-resistant pilot certificates, and the FAA is currently developing a rule requiring all pilots to obtain new certificates containing a hologram and other anti-counterfeit measures.[83] These measures help to ensure that only properly identified and certified pilots are able to operate general aviation aircraft. Measures that control pilot certification and aircraft access substantially reduce the threat of small general aviation aircraft being used for terrorist purposes, because these aircraft usually transport only the pilot and those known to the pilot, and therefore are less likely to be hijacked.

Fifth, NORAD's new system of cameras and lasers, implemented in May 2005, greatly enhances tracking and threat identification capabilities in the Washington area airspace.[84] This system will allow the military to identify threat aircraft using radar and infrared cameras with the capability to scan 360 degrees.[85] If a pilot strays into the Flight Restricted Zone, and fails to respond to radio contact, red and green laser beams will then warn the aircraft to leave the area.[86] Those who also ignore the laser warning will be identified as threats. This improvement in the ability to identify threat aircraft could help reduce intercept response times, allowing some modification of the ADIZ operating requirements.

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[78] *See generally Report of the Aviation Security Advisory Committee Working Group*.

[79] Another security program is TSA's Certificate Access Program ("TSAAC"). TSAAC is a "proof of concept" security program based on security procedures and best practices developed by the National Business Aviation Association ("NBAA"). It has been successfully introduced at three business aviation airports in the New York area. TSA Press Release, *TSA and National Business Aviation Ass'n to Expand General Aviation Security Partnership Program* (December 30, 2004), *available at* http://www.tsa.gov.

[80] GAO Report at 2.

[81] Report from the Aviation Crime Prevention Institute (on file with AOPA).

[82] 14 C.F.R. § 61.3(a).

[83] Report on DOT Significant and Rulemakings, RIN 2120-AI43 (April 2005), *available at* http://regs.dot.gov/rulemakings/200504/report.htm.

[84] Goo, *Lasers To Signal Airspace Breaches*, THE WASHINGTON POST, April 16, 2005, A01.

[85] *Id.*

[86] *Id.*

Sixth, a ground-to-air missile system has been established at strategic points around Washington. About 10 miles from the White House, at the U.S. Naval Surface Warfare Center's Carderock facility, there is a clearly visible ground-to-air missile launcher station**.** The Navy recently acknowledged that the launcher is part of NORAD's Operation Noble Eagle, a program designed to tighten national security since the September 11, 2001, attacks.[87] The six ground-to-air missiles in the launcher are intended to "counter an inbound threat."[88] Similar missile launchers can be seen at various other points around Washington.

In analyzing the degree to which the ADIZ requirements really add to the overall level of security, all of the other security measures that have been implemented over the past few years must be considered as well. In light of the other steps that have been taken to improve security, and in light of the existing Flight Restricted Zone, the *incremental* benefit provided by the existing ADIZ requirements – at least for lighter, slower aircraft operating within it – is extremely small.

2. AOPA's Recommended Alternative.

Because a major purpose of the ADIZ is to increase the time available to intercept a threatening aircraft, the ADIZ restrictions on different classes of aircraft should bear some relationship to the threat posed by those aircraft. If the temporary ADIZ cannot be eliminated, AOPA recommends an alternative approach that would eliminate or replace the ADIZ procedural requirements for aircraft that weigh 6,000 pounds or less, and that limit their speed to 160 knots indicated or less. Due to their small size and limited cargo-carrying capacity, these aircraft are the least likely candidates for use by terrorists. Under this alternative, the FAA would retain all existing requirements within the FRZ, but would apply the existing ADIZ requirements only to larger, faster aircraft. On special notice from the FAA, during high threat periods, the requirements applicable to heavier, faster aircraft could be extended to lighter, slower, exempted aircraft until the threat level is reduced.

Exempting small general aviation aircraft from the existing ADIZ restrictions would resolve many of the administrative and operational problems that the ADIZ creates. Most aircraft weighing 6,000 pounds or less fly under VFR rules. Because the ATC infrastructure was designed and staffed to track only aircraft flying under IFR, the large volume of VFR traffic that the ATC system must now track under the ADIZ requirements has caused substantial system overload. Removing smaller general aviation aircraft from detailed ATC tracking responsibilities would alleviate the burdens on the ATC system, and would reduce the load on communication lines between ATC and pilots.

AOPA requests that the FAA perform a detailed analysis of that proposed alternative before issuing any final rule.

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[87] Mary Otto, *A Suburb's New Resident Draws Stares: Missile Launch Installed at Naval Warfare Center As Part of U.S. Air Defense*, THE WASHINGTON POST, February 27, 2005, at CO4.

[88] *Id.*

III. COMMENTS ON OTHER AIRSPACE ISSUES

A. Section 93.43 – Requirements For Aircraft Operations To Or From College Part Airport; Potomac Airfield; Or Washington Executive/Hyde Field Airports, And Section 93.45 – Special Ingress—Egress Procedures For Bay Bridge And Kentmorr Airports And Section 93.47 – Special Egress Procedures For Fringe Airports.

In view of the significant government and institutional assets located within the FRZ, AOPA does not object to those procedures for operation into and out of the three named airports.

AOPA has supported the use of special ingress/egress procedures for fringe airports because the requirements provide a measure of relief for general aviation pilots. The FAA was persuaded that logical consideration should be given to special modifications for operations at airports near the fringe of the ADIZ, and AOPA supports the result in that it represents the more reasoned model by which determinations should be made for security procedures within the ADIZ.

In addition, the special procedures adopted for these fringe airports illustrate that it is possible to achieve a satisfactory level of security without imposing additional undue burden or operational inefficiencies on air traffic control personnel and the general aviation community.

IV. CONCLUSION

AOPA appreciates the opportunity to provide these written comments, and urges the FAA to allow oral comments to be presented in public meetings before issuing any final rule. AOPA has been a strong supporter of enhanced aviation security measures to combat terrorist threats, and America's general aviation pilots support the FAA's goal of assisting the Departments of Defense and Homeland Security in protecting the National Capital Region. AOPA believes that the Washington, D.C. area can be protected through a combination of the existing requirements of the 15-mile Flight Restricted Zone ("FRZ"); the existing temporary ADIZ requirements, should either be eliminated or modified to apply only to larger, faster aircraft; and a new, simpler set of requirements applicable to slower, lighter aircraft.

Thank you for your consideration.

Sincerely,

Phil Boyer
President

Attachment A

AOPA FACT SHEET

WASHINGTON DC GENERAL AVIATION

FLIGHT RESTRICTIONS ECONOMIC AND OPERATIONAL IMPACTS

(Revised 9-2-04)

ECONOMIC IMPACT

There are **19** public use airports that fall within the restricted airspace around Washington, DC. These airports are home to **2655** general aviation aircraft that conduct more than **1.1 million** operations annually. In fact, more than **60 percent** of aircraft operations in the region are general aviation. These general aviation operations generate almost **$123 million** in economic activity annually and the Washington DC ADIZ has devastated many of these businesses. Across the board, airport businesses report a drop in business between 30 and 50 percent. For example:

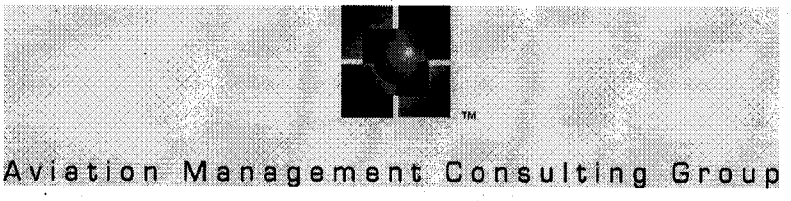
- Pro Pilots, Incorporated, a large flight school at Leesburg Airport, Virginia was forced to close in 2003 because of the dramatic drop in business related to the restrictions.
- Freeway Airport, Maryland reports that business is down by at least 40 percent and pilots aren't flying because of the long hold times and difficulty in getting an air traffic clearance.
- Montgomery County Airpark, Maryland also reports a 40 percent decrease in business and they are losing at least $10,000 a month because of the ADIZ. Aircraft rental revenue is down by 25 percent and instruction revenue is down by 35 percent.
- Manassas Airport, Virginia reports that business is down by 55 percent and that solo flights are off by 30 percent and fear of certificate action is keeping pilots grounded; The airport is losing over $35,000 per month.
- Kentmorr Airpark reports a decrease of approximately 90% transient traffic on weekend days since the ADIZ implementation.
- At Kentmorr Airpark, 6 of the 15-based aircraft cannot fly due to the requirements of the ADIZ because they are not electrically equipped.
- Congressional Air, a Large Charter Company/FBO out of Montgomery County closed in October 2003.
- Manassas Airport Operations were down by about 9% (11,000 operations) in 2003 due in part to the ADIZ implementation coupled with some airport construction and overall bad weather.
- Essex Airpark has learned there have been more impacts than originally envisioned since the ADIZ implementation. Operations are down by nearly 50% and airport believes the bulk is lost transient operations.
- However, some airports like Montgomery Airport and Leesburg Airport have seen increased airport operations due to jet traffic that originally would have landed at Washington National Airport.

- Piedmont-Hawthorne at Dulles Airport reports maintenance sales down by 50% in past year

OPERATIONAL IMPACTS

The operational impacts of the ADIZ are significant and pilots are experiencing extensive delays both on the ground and in the air.

- Contacting ATC via landlines from airports without a clearance delivery frequency has led to delays that ranged from 10 minutes to over 2 hours.
- Pilots attempting to obtain discrete codes via clearance delivery on the ground also experienced delays of up to 45 minutes, while holding at the runway threshold, with the engine running.
- Larger corporate aircraft, requiring IFR release clearances at non-towered airports, are experiencing lengthy delays because of all the VFR traffic clogging the system.
- Airborne pilots attempting to obtain a beacon code prior to entering the ADIZ face lengthy hold times, and in many cases are denied service.
- IFR traffic attempting to cancel a flight plan in VFR conditions could not contact the busy controller, who was working VFR traffic.
- All pilots calling Flight Service faced lengthy hold times and abandoned calls.
- AOPA has received numerous report from pilots who are concerned about the safety implications of forcing VFR aircraft to circle and loiter over common points while they try and get permission to enter the ADIZ. With the hazy days of summer looming, this problem will be compounded by the decreased visibility and the increase in VFR traffic.
- Not only are we hearing from pilots on the safety concerns, but NATCA representatives are also relaying significant safety concerns. In the past month, the first Near Mid-Air Collision occurred within the ADIZ. This only exacerbates the controller's frustration and concern with providing any services to VFR traffic.
- Based on the requirements of the current ADIZ, several flying clubs in the area are completely shut down. Just one example is the unwillingness of the FAA and TSA to implement procedures to allow a Deaf Pilots club at Montgomery County Airpark in Gaithersburg, MD to continue operating in the airspace.
- We have also been contacted by many operators who are unable to comply with the requirements of operating in the ADIZ airspace for reasons such as they are non-electrically equipped and do not have transponders or have no radios. Although FAA and TSA have been willing to work with these operators to "flush" them out of the airspace to a new base, many of these individuals no longer find it economically feasible to drive hours out of the area to fly.
- A recurring statement made across the board was that while the number of based tenants at an airport have not necessary decreased, pilots are not flying based on their fear of doing something wrong due to the imposed restrictions and transponder requirements. Planes are sitting on the ground like paperweights while pilots continue to incur the expense of hanger costs, aircraft maintenance and insurance costs.



October 28, 2005

Mr. Andrew V. Cebula
Senior Vice President
Government and Technical Affairs
Aircraft Owners and Pilots Association
421 Aviation Way
Frederick, MD 21701-4798

Dear Mr. Cebula:

Pursuant to our engagement, Aviation Management Consulting Group, Inc. and Martin Associates have conducted an impact study on airports within the Washington D.C. Air Defense Identification Zone (ADIZ). This summary report conveys our key findings.

Clearly, the terrorist attacks on September 11, 2001 (9/11) had an adverse impact on general aviation nationwide. Based upon our analysis of several key indicators, airports outside of the ADIZ have begun to recover while airports inside the ADIZ overall have not – particularly as it pertains to the piston-powered segment of the general aviation market (i.e., aircraft owners and operators who fly mostly under Visual Flight Rules or VFR and the aviation businesses who serve this consumer group).

Some of our key findings (which are based upon our analysis of key indicators for the 2002 to 2004 period) follow:

- Revenue – Within the ADIZ, at 9 airports we studied (Bay Bridge Airport – W29, Essex Skypark – W48, Freeway Airport – W00, Kentmorr Airport – 3W3, Martin State Airport – MTN, Maryland Airport – 2W5, Montgomery County Airpark – GAI, Tipton Airport – FME, and Leesburg Executive Airport - JYO), approximately $28.5 million in airport revenue was lost annually. Three airports (2W5, GAI, and FME) lost annual revenues in excess of $3 million each and MTN lost more than $15 million.
- Jobs (Employment) – Within the ADIZ, at 6 airports we studied (W29, W48, MTN, GAI, JYO, and Lee Airport - ANP), approximately 130 total jobs (direct, induced, and indirect) were lost including 72 total jobs at GAI alone.
- Personal Income – Within the ADIZ, at 6 airports we studied (W29, W48, 3W3, ANP, GAI and JYO), approximately $3.5 million annually in personal income was lost. Annually, GAI lost $2.5 million, W29 lost approximately $474,000, W48 lost approximately $245,000, and JYO lost approximately $130,000.
- Taxes – Within the ADIZ, at 5 airports we studied (W29, W48, ANP, MTN, and GAI), approximately $931,000 in taxes was lost annually.
- Local Spending – Within the ADIZ, at 4 airports we studied (W29, JYO, MTN, and GAI), approximately $10.2 million in local spending was lost annually including approximately $7 million annually at MTN alone.

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While our analysis indicates that general aviation operations (a takeoff or a landing) at airports on the perimeter of (but not within) the ADIZ have recovered since 9/11, it also indicates that general aviation operations (which includes total, local – an aircraft operating within the vicinity, and itinerant – an aircraft leaving or arriving from outside the vicinity) at airports inside the ADIZ have not recovered.

In addition, while Avgas fuel volumes (gallons dispensed into piston-powered aircraft) have steadily increased since 9/11 at airports on the perimeter of (but not within) the ADIZ, Avgas fuel volumes at airports inside the ADIZ have decreased overall.

Additionally, by way of one-on-one meetings, telephone conversations, and on-line surveys of airport operators, airport businesses, and airport users within the ADIZ, it is clear that the ADIZ has had, and continues to have, a negative impact particularly on aircraft owners and operators flying under VFR and the aviation businesses that support them.

We obtained anecdotal evidence that overwhelmingly suggests that:

- Prospective student pilots are not (or have not been) learning to fly within the ADIZ or they are learning to fly outside of the ADIZ
- Aircraft renters are (or have been) renting less or not renting at all within the ADIZ
- Recreational/pleasure flying (occurring under VFR) has declined within the ADIZ (local pilots are flying less) and outside of the ADIZ (transient pilots are visiting less)
- Aviation businesses are receiving less, or in some cases no, visits from clients that, prior to the implementation of the ADIZ, flew in to airports within the ADIZ from airports outside of the ADIZ for services including, but not limited to, aircraft maintenance and repairs
- Aircraft used for recreational/pleasure flying are (or have been) leaving airports within the ADIZ and relocating to airports outside of the ADIZ

Overall, it is clearly apparent that airports within the ADIZ have been negatively impacted (both operationally and economically) by the events on 9/11 and that their recovery (particularly as it relates to general aviation operations and Avgas fuel volumes) has lagged the recovery experienced at airports outside of the ADIZ.

We are pleased to have been called upon to conduct this study and convey our findings regarding the impact on the airports within the ADIZ. Please contact myself or Jason Morgan if you have any questions about our findings.

Sincerely,

Paul A. Meyers
Principal in Charge

EXECUTIVE SUMMARY

I. INTRODUCTION

Aviation Management Consulting Group, Inc. and Martin Associates were engaged by Aircraft Owners and Pilots Association on August 15, 2005 to conduct an impact study on the airports within the Washington D.C. Air Defense Identification Zone (ADIZ). The study included an analysis of 13 airports within the ADIZ (Subject Airports), 20 airports just outside of the ADIZ (Perimeter Airports), numerous national and regional airports that are comparable (Comparable Airports) to the Subject Airports, as well as national general aviation trends. This Executive Summary is supported by the Statistical Data Summary and Final Report dated October 14, 2005 attached hereto.

The effects of the terrorist events on September 11, 2001 (9/11) and related actions such as the immediate grounding of all aircraft significantly impacted general aviation nationwide. This report looks at how the Subject Airports have been impacted by 9/11 and what role the ADIZ may have played in those impacts.

Based on the information obtained and analyzed during this study, it is apparent that the Subject Airports have experienced negative economic impacts (as described in this report) and that, while activity levels at airports throughout the nation and particularly those just outside the ADIZ (Perimeter Airports) have begun to recover post 9/11, the ADIZ may have hindered the recovery at the Subject Airports between 2003 and 2004.

II. ECONOMIC IMPACTS

Data was collected from the Subject Airports for the 2002 to 2004 period. The ADIZ was implemented in February 2003. Areas impacted as presented in the Statistical Data Summary and Final Report include: jobs/employment, personal income, revenue, taxes, and purchases/local spending.

Jobs/Employment

A total of 130 jobs (direct, induced, and indirect) were lost at 46% (6) of the Subject Airports and 15% (2) of the Subject Airports showed neither a decline nor increase in jobs during the 2002 to 2004 period.

Personal Income

A total of approximately $3.5 million in personal income (direct, induced, and indirect) was lost annually at 46% (6), and neither a gain nor a loss was experienced at 8% (1), of the Subject Airports during the 2002 to 2004 period.

Revenue

A total of approximately $28.5 million in airport revenue was lost annually at 69% (9) of the Subject Airports during the 2002 to 2004 period. Additionally, 4 Subject Airports

(Martin State Airport, Maryland Airport, Montgomery County Airport, and Tipton Airport) each experienced a decline in annual airport revenues of greater than $3 million and 1 Subject Airport (Martin State Airport) experienced a decline in annual airport revenues of greater than $15 million.

Taxes

A total of approximately $931,000 annually was lost in taxes (local, state, and federal) at 38% (5), and neither a gain nor loss in taxes occurred at 31% (4), of the Subject Airports during the 2002 to 2004 period.

Local Spending

Approximately $10.2 million in local spending was lost annually at 31% (4) of the Subject Airports (Bay Bridge Airport, Leesburg Executive Airport, Martin State Airport, and Montgomery County Airpark) during the 2002 to 2004 period.

AIRPORT-SPECIFIC ECONOMIC IMPACTS

The following Subject Airports appear to have been particularly impacted by the ADIZ:

Bay Bridge Airport (W29)

Bay Bridge Airport lost a total of 12 total jobs (direct, induced, and indirect) during the 2002 to 2004 period. This equates to approximately $474,000 in annual lost personal income during the same period.

Essex Skypark (W48)

Essex Skypark lost approximately $245,000 in total personal income (direct, induced, and indirect) annually during the 2002 to 2004 period.

Martin State Airport (MTN)

Martin State Airport lost at least 116 indirect jobs – those jobs that are generated due to the purchase of goods and services by firms that are directly dependent on airport activity - during the 2002 to 2004 period. This equates to a loss of nearly $7 million annually in local spending. In addition, approximately $15 million of airport revenue was lost annually at Martin State Airport.

Montgomery County Airpark (GAI)

Montgomery County Airpark lost 72 total jobs (direct, induced, and indirect) during the 2002 to 2004 period. This equates to approximately $2.5 million in lost annual personal income.

Leesburg Executive Airport (JYO)

Leesburg Executive Airport lost approximately $130,000 in total personal income annually during the 2002 to 2004 period resulting from the loss of 5 total jobs in the Fixed Base Operator sector.

III. ACTIVITY INDICATORS/IMPACTS

While the analysis looked at total general aviation operations (local and itinerant), total general aviation fuel flowage (Avgas and Jet A), and based aircraft, it appears that the ADIZ restrictions may have inhibited the recovery of general aviation at the Subject Airports particularly in terms of general aviation operations and Avgas fuel flowage.

General Aviation Total Operations

An aircraft operation is either a takeoff or a landing. Total operations include both local (takeoffs or landings where the aircraft stays in the airport vicinity) and itinerant (a takeoff where the aircraft leaves the airport vicinity and lands at another airport, or an aircraft landing where the aircraft has arrived from outside the airport vicinity) operations.

Total operations at the Subject and Perimeter Airports declined between 2002 and 2003. While the Perimeter Airports experienced a recovery (increase) in total operations during the following year (between 2003 and 2004) consistent with the increase in the total general aviation hours flown nationally (FAA Aerospace Forecasts), total operations at the Subject Airports continued to decline, potentially due to the ADIZ.

General Aviation Local Operations

Local operations at the Subject Airports declined during the 2001 to 2004 period while local operations at the Perimeter Airports increased during the same period (aside from a decrease only during the 2002 to 2003 period). Local operations at the Subject Airports behaved similarly to those at the national Comparable Airports through the 2002 to 2004 period.

General Aviation Itinerant Operations

Itinerant operations at the Subject Airports continued to show a decline in the 2003 to 2004 period while itinerant operations at the Perimeter Airports and Comparable Airports remained stable or increased over the same period. It is possible that the ADIZ could have hindered the recovery post-2003 at the Subject Airports that was experienced at the Perimeter Airports.

Fuel Flowage

Avgas fuel flowage (U.S. gallons dispensed) at the Subject Airports declined by 18% during the 2002 to 2003 period and remained relatively flat during the 2003 to 2004

period. However, potentially due to the ADIZ, Avgas fuel flowage at the Subject Airports lagged behind the steady growth in Avgas fuel flowage experienced at the Perimeter Airports during the 2001 to 2004 period.

IV. CONCLUSION

The Subject Airports (within the ADIZ) have clearly been negatively impacted (operationally and economically) by the events of 9/11. The data that was collected for this report also indicate that, while the Perimeter and Comparable Airports along with the overall general aviation industry have experienced some recovery from the events of 9/11, the ADIZ may have impeded such recovery at the Subject Airports.