PREPARING FOR THE NEXT
KAMIKAZE ATTACK ON THE
AMERICAN HOMELAND

BY

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PREPARING FOR THE NEXT *KAMIKAZE* ATTACK ON THE AMERICAN HOMELAND

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ABSTRACT

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This paper presents a case for not diverting additional Transportation Security Administration (TSA) resources from Civil Aviation security to General Aviation (GA) security. It acknowledges that the TSA spends very little on GA security even though Al-Qaeda retains the capability to conduct strategic attacks using GA aircraft. In developing the argument against diverting resources, the author reviews three reasons why Al-Qaeda will not use GA aircraft in a strategic strike against the U.S. Firstly, other methods are available that are both easier to execute and would cause more damage than a GA attack. Secondly, attacking the U.S. homeland is against Al-Qaeda’s operational interests because doing so would bring the American people back into the fight. Finally, attacking the U.S. homeland is against Al-Qaeda’s operational interests because doing so would reverse its successes in gaining international support for the removal of U.S. forces from Iraq. Because Al-Qaeda will not strike the U.S. homeland using GA aircraft, TSA should not divert additional resources from Civil Aviation security to General Aviation security.
PREPARING FOR THE NEXT KAMIKAZE ATTACK ON THE AMERICAN HOMELAND

Should the Transportation Security Agency (TSA) devote more resources to General Aviation (GA) security to help prevent a potential terrorist attack on the U.S. homeland?

Administrators concern themselves about how to allocate resources against competing demands. On a small scale, homeowners frequently make decisions about the appropriate level of spending to protect their household. A homeowner makes decisions such as: Should I install deadbolt locks; is it worth it? Should I install a home alarm system; is it worth it? Should I put bars on my windows; is it worth it?

Even in the childhood fairytale of the Three Little Pigs, decisions of durability were required: Should I build my house of straw, sticks, or bricks?

The questions generally do not relate to the viability of having the protection; they relate to the tradeoffs needed to put the added security in place. Not many people would argue that one should not have a deadbolt lock if such protection were free. Resource allocation decisions involve tradeoffs. The cost of installing deadbolt locks may equate to foregoing a dinner at a favorite restaurant. The cost of a home alarm system may equate to foregoing a weekend get-away with the family. Conversely, the added security of bars on windows may actually decrease the value of one’s home because it gives the image of being in a bad neighborhood.

The Transportation Security Agency (TSA) faces similar questions on resource allocation needed to protect the American public effectively. In its case, resource allocation decisions involve dedicating resources against commercial airline safety versus GA aviation safety. This paper attacks the question of whether or not it should
dedicate more resources to GA safety (prevention of terrorist uses of GA aircraft) by taking resources away from commercial airline safety.

Security: FAA and TSA Funding

The Fiscal Year (FY) 2001 was almost complete when the Al-Qaeda network launched the infamous attack on 9/11. Given the long lead times between the President’s Budget submission and the actual starting of Fiscal Year 2001 (which began on 1 October 2000), using the FAA’s budget submission for the FY 2001 provides a useful measure of concern for aviation security prior to 9/11. For FY 2001, the FAA requested $144 Million for Civil Aviation Security. Even though Al-Qaeda had not attacked yet, there were some ominous predictions in the language of that budget brief.

Because terrorists may seek to destroy public confidence in the safety of air travel and disrupt this vital segment of the U.S. and world economies, the continued growth of commercial air transportation depends on the success of the aviation security mission. Protecting aviation’s infrastructure – FAA facilities and equipment and the people who run them – is also Security’s mission.

Including supplemental funding, Congress provided $458 Million in FY 2002 for the security mission. This was a 218 percent increase over the FY 2001 request and it provides a strong indicator that 9/11 altered Congress’ priorities towards aviation security. By FY 2003, Congress switched security funding from the FAA to the TSA as part of the implementation of The Aviation and Transportation Security Act (P.L. 107-71) that the President signed on November 19, 2001. This newly established arm of the Department of Transportation requested $4.8 Billion for its overall mission. Unfortunately, for comparative purposes, the TSA took on security for more than just the aviation sector. Its mission included the national transportation system involving such items as protecting airports, bridges, highways, seaports, mass transportation, and the
nation’s transportation infrastructure in general. In requesting their budget for FY 2007, the Department of Homeland Security (DHS) identified a requirement for $4.8 Billion just for TSA’s Aviation Security needs. In reading the justifications, however, one quickly realizes that TSA targets virtually all of the funds towards airline passenger security and spends very little for GA security.

These advances include hardened cockpit doors; a greatly expanded Federal Air Marshals program; arming some pilots through the Federal Flight Deck Officers program; offering voluntary self defense training to crew members; and screening 100 percent of passenger and checked baggage. TSA will continue these efforts in 2007 by requesting $4.7 billion for aviation security, including $3.7 billion for aviation screening operations, which ensures sufficient resources for Transportation Security Officer staffing at our Nation’s airports. Combined with the funds provided in 2006, TSA will apply over $100 million to enhance air cargo security over two years. TSA will commit over $690 million to the purchase, installation, and maintenance of baggage screening devices, including inline systems that will increase baggage throughput up to 250 percent.

The above citations from budget requests validate that the attitude towards GA security remains as it was when the Government Accountability Office (GAO) investigated the issue in 2004.

TSA and FAA have taken steps to address security risks associated with general aviation through regulation, guidance, and funding. However, in response to the September 11 attacks, TSA has primarily focused on strengthening the security of commercial aviation and meeting associated congressional mandates. As a result, TSA has dedicated fewer resources to strengthening general aviation security, and both TSA and FAA continue to face challenges in their efforts to further enhance security.

It is clear, then, that the TSA does not spend significant funds providing security for general aviation aircraft. Whether or not it should realign more resources from civil aviation to general aviation is the question this paper will address in the discussions that follow.
Is Al-Qaeda Capable of Launching a GA Attack?

During the Second World War, the Japanese resorted to the use of Kamikaze ("Divine Wind") pilots to increase the accuracy of delivering their bombs on their intended targets. We do not need to reach back into World War II history to find examples of the suicidal aircraft pilot; the Al-Qaeda attacks on the World Trade Center and the Pentagon on September 11, 2001, proved that the tactic of using “Divine Wind” still works in the 21st century. Furthermore, we know from repeated “car bombing” and/or “suicide bombing” attacks throughout the Middle East since the 9/11 attacks that Al-Qaeda is very capable of recruiting soldiers for suicide missions.

Al-Qaeda is very capable of delivering additional attacks on the homeland, albeit using slightly different tactics than they used in September 2001. Given the resources dedicated to GA security, Homeland Security can do little about such attacks except to prepare for the consequence management after the event that would include an intensive information campaign to calm the American People following such an attack. Later, this paper argue that the main reason we have not seen such attacks since 9/11 is that doing so is not currently in the best strategic interest of Al-Qaeda; they are so focused on their operational campaign to drive us out of Iraq that they do not currently want to inflame the American people. The strategic center of gravity for the United States is the Will of the People. Another attack on the American Homeland would increase the will of the people to continue Operation Iraqi Freedom; thereby countering the recent successes Al-Qaeda is having in diminishing the American public's will to fight in Iraq. Even a tactical level attack on the American homeland could have significant strategic effects since it would bring the American people back into the fight.
To establish the argument on the potential for a GA attack this paper will first outline a potential “Divine Wind” method that is simple enough for any terrorist organization to execute. Then it discusses the potential targets they could use, while at the same time discounting some of the potential targets identified in the popular press. To frame the potential damages it could cause, this paper briefly discusses potential warhead choices. Finally, the paper suggests that even though a terrorist attack is possible using GA aircraft, it is not a probable attack scenario and therefore TSA should not devote much effort to prevent it.

A review of The Al-Qaeda Training Manual\textsuperscript{12}, suggests that the sixth of eight military missions designated for Al-Qaeda is, “Blasting and destroying the places of amusement…”

Another 9/11 style attack, using commercial airliners laden with fuel and hundreds of passengers crashing into national symbols of power, is not the most likely tactical choice for Al-Qaeda looking into the future because of the efforts TSA now places on commercial aviation security. Those types of attacks focus on Al-Qaeda’s seventh military mission of, “Blasting and destroying the embassies and attacking vital economic centers.”\textsuperscript{13} After 9/11, Gerald E. Marsh (physicist who served as a consultant to the Office of the Chief of Naval Operations on strategic nuclear policy) and George S. Stanford (nuclear reactor physicist who spent his career on experimental work pertaining to power-reactor safety) wrote about similar targets such as nuclear power plants using GA aircraft.\textsuperscript{14} In their article, they stated that nuclear plants are not an attractive target because there are other targets that could yield a higher payoff.

Without question, sophisticated and well-organized terrorists could do damage to nuclear power plants, and such attempts cannot be ruled out.
However, to be appealing to a suicidal terrorist cell, a potential mission must offer the prospect of appreciable havoc with a high probability of success. We show below that nuclear power plants do not offer that combination: scenarios that are likely to succeed will do minimal damage, and those where serious damage could theoretically result have a very small chance of success.\textsuperscript{15}

Their conclusions seem valid, so this paper ignores nuclear power plants as potential targets.

A swarm of mosquitoes can be equally as annoying as a severe bee sting. The World Trade Center event and the Pentagon event would fit in the realm of a severe bee sting. This theory centers on the use of a swarm of mosquitoes.

In small towns all across America, there are small airports housing the local establishment’s little jewels of pride: General Aviation (GA) aircraft. There are approximately 211,000 GA aircraft in the U.S.,\textsuperscript{16} of which about 68 percent are single-engine piston planes such as the Cessna 172.\textsuperscript{17} For the purposes of this paper, the GA aircraft definition is restricted to single-engine airplanes such as the ever-popular Cessna 172. The Cessna 172 has a useful load of 1015 pounds.\textsuperscript{18} While carrying a 200-pound pilot and 45 pounds of fuel (enough to fly for one hour), the airplane could still precisely deliver approximately 770 pounds of explosives or chemicals as a “warhead” to a hometown gathering of your choice.

In terms of explosive power, 770 pounds may sound small compared to the 5,000 pounds that Timothy McVeigh used in the Oklahoma City Bombing on April 19, 1995, generating the equivalent of 0.002 kilotons of TNT.\textsuperscript{19} The “Little Boy” the U.S. dropped on Hiroshima in 1945, generated between 15 to 16 kilotons of kinetic force and killed 70,000 people instantly. Because it weighed 8,900 pounds, though, a Cessna 172 is not capable of carrying it.\textsuperscript{20} If, however, we make a leap of faith and suggest that our
terrorist adversaries are only 45 years behind the U.S. in terms of technology development, then we can assume that they can develop (or steal) something similar to the “W-59” warhead (used on the Minuteman I missile) that generated 1,000 kilotons of kinetic energy and only weighed 553 pounds. Using that as a point of reference, one can easily see why a 770-pound warhead is something to concern ourselves about.

This discussion, however, is not about weapons of mass destruction (WMD). If a terrorist organization wanted to deliver a WMD, they could do that without using a Cessna 172. If someone wants to cross the line into WMD use, he or she will not concern themselves about the efficiency of airbursts versus impact bursts.

When this paper uses the term, “hometown gathering of your choice,” you may ask yourself, “which hometown?” Since there are 14,000 private-use and 4,800 public-use GA airports in the U.S. from which a terrorist organization could steal aircraft, it does not matter which hometowns it targets. Suffice it to say, there are ample opportunities for a terrorist organization to find multiple small airfields, close to population centers, from which they could launch a multi-pronged attack.

One could assume that one 770-pound, precisely delivered, bomb planted in the middle of the crowd of a hometown high school football game would not be sufficient to excite the America people because it would be too easy to trivialize – a fluke, or one-time shot. However, imagine a synchronized attack of five or ten of these same “Divine Wind” bombs landing on high school stadiums throughout the central United States on any given Friday evening of football season. It would be hard for the Administration to downplay such a well-coordinated event as a fluke. It would be difficult for the press to treat it lightly. The Administration or the press could easily portray the first strike as an
“accident,” but when four or nine other high schools experience the same trauma at approximately the same time, it becomes a significant emotional event for the American people.

Instead of high school football games, the terrorists could choose to conduct a similar attack on shopping malls throughout the United States. Doing so would cause, “Significant and sustained decline in economic activity in public spaces, loss of confidence.” On the same page of this book, O’Hanlon suggests that the economic impact could be as much as $250 billion.

Ignoring the obvious use of “Divine Wind” pilots of 9/11, one must ask the question whether Al-Qaeda has the ability to pilot planes for this purpose.

The F.B.I. knew by 1996 of a specific threat that terrorists in Al-Qaeda, Mr. bin Laden’s network, might use a plane in a suicide attack against the headquarters of the C.I.A. or another large federal building in the Washington area, the law enforcement officials acknowledged.

We also know that the original 9/11 pilots had received training on crop-duster airplanes that presumably they could use to spray large populations with chemical agents.

U.S. law enforcement officials have found a manual on the operation of crop-dusting equipment while searching suspected terrorist hideouts, government sources tell TIME magazine in an issue out on Monday, Sept. 24th. The discovery has added to concerns among government counterterrorism experts that the bin Laden conspirators may have been planning — or may still be planning — to disperse biological or chemical agents from a crop-dusting plane normally used for agricultural purposes. Among the belongings of suspected terrorist Zacarias Moussaoui, sources tell TIME, were manuals showing how to operate crop-dusting equipment that could be used to spray fast-killing toxins into the air.

We know that after the 9/11 attacks, the FAA implemented new measures requiring flight schools to deny training to potential student pilots until the TSA conducts a satisfactory background check on that individual. While this may serve as a
deterrent to prevent common criminals from obtaining flight training, can we seriously suggest that it prevents a determined terrorist from doing so? A student pilot can solo (fly by themselves) with 10-15 hours of instruction. Given that landing safely may not be a criterion for a suicidal pilot, it would take much less training to pilot a C-172 for terrorist purposes. Therefore, it is clear that Al-Qaeda definitely retains the capability to pilot small aircraft and use them in an unfriendly manner towards the U.S.

Is an Al-Qaeda Attack Imminent?

Although GA aircraft are readily available throughout the U.S. and are easy to steal, this paper now discusses three reasons why it is not probable that Al-Qaeda will use GA aircraft for such an attack. The first argument is that there are easier methods for Al-Qaeda to use in delivering explosives into American crowds or in such a manner to cause significant disruption to the American way of life. The second argument is that any such an attack would be against its interests because it would bring the American people back into the fight. Finally, the third argument is that any such an attack would be against its interests because it would solidify international support for America’s on-going campaign against the terrorist network. Below, these three ideas develop in more detail.

Easier Methods

Sticking with the concept of a swarm of mosquitoes – a coordinated multi-pronged attack – lets examine some other possible scenarios that would be easier for Al-Qaeda to execute without using GA aircraft. Remember that one of Al-Qaeda’s military missions is to destroy economic centers. On the surface, the terminology brings to mind the physical destruction of such centers as displayed by the direct attack on the
World Trade Centers. Would it be possible, though, that it decided to make an attack that would have the indirect effects of severely limiting commerce for a day or two? Would such an action not fit into its strategy of destroying economic centers? Picture, for example, a coordinated attack on all major truck and rail arteries leading to and from major trade centers such as Los Angeles. Do you remember the trucking accident in an Interstate 5 tunnel north of Los Angeles that happened on Friday evening, 12 October 2007? That incident closed the southbound lanes of Interstate 5, which carries 225,000 vehicles per day, for five days.  

Interstate 5 is of vital commercial importance, but detours and disruptions along its 1,381-mile length from the Mexican border to Canada have become increasingly common. Many have been attributed to steadily increasing traffic and a steady deterioration of roadways.

Back to the swarm of mosquitoes -- what would happen to the Los Angeles economy, or the U.S. economy for that matter, if terrorists created similar accidents simultaneously on major choke points leading in to and out of Los Angeles? To develop this hypothetical argument, let us close five choke points in the LA area and project the disruption to truck traffic (not total vehicles, just trucks larger than 1 ½ tons). See figure 1 for a graphic on these choke points. Closing Interstate 5 north of Los Angeles at the junction of Route 14 would prevent the flow of 19,306 trucks per day. Closing Interstate 15 north of Los Angeles at the junction of Interstate 215 would prevent the flow of 40,611 trucks per day. Closing Interstate 10 east of Los Angeles at the intersection of Route 60 West would disrupt 29,430 trucks per day. Closing Interstate 15 south of Los Angeles at the intersection of Route 79 would disrupt 31,418 trucks per day. Finally, closing Interstate 5 south of Los Angeles at the intersection of Interstate 405 would disrupt 31,613 trucks per day. In total, closing these five choke points
would disrupt 152,378 trucks per day. While this paper does not calculated the economic cost of such closures, it is safe to assume those costs to the American economy would be significant. This action has the potential to disrupt three of California’s four major seaports (Long Beach, Los Angeles, and Port Hueneme). In 2001, the four major seaports in California (Oakland being the one not included in this traffic jam) handled 42 percent of containers moving through U.S. seaports.36

Figure 1, Potential Strikes Closing Los Angeles

How could a terrorist group close five choke points simultaneously? We know that Al-Qaeda has expertise in developing improvised explosive devices (IEDs) that have the capability of penetrating armored vehicles. If it can develop IEDs that can penetrate
armored vehicles, it certainly can produce IEDs that could penetrate – and set fire to – tanker trucks carrying flammable liquids such as various petroleum-product distribution trucks. Could not a terrorist easily mount these IEDs on the top of a car or van with a roof rack? It would be easy to disguise these IEDs by simply throwing a tarp over them. The terrorist could then drive along side any number of tankers and choose to detonate the IED at critical highway features such as tunnels, junctions, or overpasses. Assuming the terrorists wanted to close the five choke points in both directions, it may take as few as ten near simultaneous attacks to accomplish this mission.

Disrupting the rail traffic at the same time as disrupting the truck traffic would have significant economic impacts on Los Angeles and the United States in general.

Altogether, more than 35,000 trains, many of them longer than a mile, course through the region every year, carrying considerably more than $100 billion worth of goods and 60 million passengers.

How important is the Southern California rail network? Consider this: An estimated 60 percent of the rail cargo arriving in Chicago each day began its land journey at the ports of Los Angeles and Long Beach.\textsuperscript{37}

Much of Los Angeles rail traffic flows northeast of Los Angeles through the Cajon Pass to the Burlington-Northern-Santa-Fe (BNSF) Classification Yard at Barstow, California. If terrorist were to use a variety of techniques including IEDs, it is not hard to imagine that an attack on the Barstow BNSF Classification Yard would be a serious blow to the U.S. economy because of the length of time it would take to rebuild the system. Consider the impact a terrorist could have based upon one accident report at the BNSF Classification yard.

As a side note, Barstow's BNSF rail yard, has one of the highest on hand car load inventory of loaded Liquid Protroleum [sic] Gas tank cars, west of the Mississippi River. Had this RCO [Remote Control Operations] switch crew rammed into the side of one of these LPG trains, the result would have been devastating not just to the BNSF, but to the City of Barstow,
and it's [sic] residents. Our inventory of railcars at any one time in Barstow can go as high as 3,000 railcars, with a good majority of them being hazardous materials.\textsuperscript{38}

While studying the volume of traffic at the Barstow yard for a different purpose, the County of San Bernardino made the following observations about the volume of traffic.

From San Bernardino to Barstow, BNSF trains travel through the 80-mile double-tracked Cajon Subdivision. The grades found within this subdivision are substantial and the use of helper locomotives is required. This segment carries between 90 to 95 trains daily, including 20-22 UP [Union Pacific] trains and up to 2 Amtrak trains. This subdivision carries approximately 132 MGT of freight on both BNSF and UP trains.\textsuperscript{39}

Disrupting 132 Million Gross Tons (MGT) of freight for even one day is bound to have significant economic impact on the U.S. economy. This train disruption argument could go further by showing attacks on other rail lines leaving Los Angeles, but (for the purpose of this discussion) this establishes that the attacks would be devastating.

Because of the disruption that a terrorist cell could do to the Los Angeles and U.S. economy through some relatively simple attacks on other infrastructure, using something other than GA aircraft, an argument exists that if Al-Qaeda were planning another attack on the U.S. Homeland, GA aircraft would not be the weapon of choice. While a multi-pronged GA aircraft attack on high school football games may cause more casualties than would an attack on infrastructure, it would not be as devastating to the United States economy. While the GA attack may cause more fatalities and a potentially stronger emotional reaction from the American people, the economic damage of the road closure is more in line with Al-Qaeda stated targeting interests.

Of course, Al-Qaeda could attempt a prolonged campaign using daily GA aircraft attacks to create the hysteria that surrounded the Washington, D.C., sniper incident of a few years ago. Contrasting that methodology to the simultaneous attacks mentioned
above, leaves it with one major weakness. After the second day of such a prolonged
attack, local authorities throughout the United States would figure out a way to secure
all GA airports temporarily until a more grandiose solution evolves. The problem would
solve itself in the short term without requiring significant diversion of TSA resources until
it happens.

Bringing the American People Back Into the Fight

While the Al-Qaeda Training Manual lists attacking places of amusement as one of
its military missions, another attack on the American homeland would be against Al-
Qaeda’s interests because it would psychologically bring the American people back into
the fight. This would reverse Al-Qaeda’s recent successes in eroding the will of the
people.

To support this argument, we must look to some of the statements of Al-Qaeda’s
leaders and then compare those stated goals against some measure of success (or
failure) it may be achieving. Weeding through the rhetoric, the Washington Post had
this to say about the October 2004 speech from bin Laden:

An examination of bin Laden’s speeches over the years shows that the
underlying message has remained consistent: Americans have repeatedly
humiliated Muslims with a foreign policy that has propped up corrupt
governments in the Middle East and perpetuated conflict in the region.
Until you prevail on your government to stop, we will strike back.

In the summer of 2005, Ayman al-Zawahiri, the Al-Qaeda number two ideologue,
made a video regarding bombings in London. The Christian Science Monitor
commented:

While Mr. Zawahiri didn’t directly take credit for the London attacks, he
promised more attacks on Britain, the US, and other allies, saying "tens of
thousands" more American troops will be killed in Iraq if there isn't an
immediate withdrawal.
From those interpretations, one can surmise that one of Al-Qaeda’s goals is to have the U.S. forces out of the Middle East. It is a political goal, not a military goal. There is evidence that Al-Qaeda is relatively aware of democratic processes.

Azzam noted that bin Laden took a similar approach in an audiotape he released in April warning European countries that they had three months to withdraw their support of the U.S. occupation of Iraq or face more terrorist attacks like the bombings on March 11 of four commuter trains in Madrid, in which 190 people were killed and more than 1,800 were injured.43

"My reading is that there is a belief on the part of bin Laden as well as other Islamists that democracy works and that voters in the U.S. and Europe can influence foreign policy decisions," Azzam said. "On the one hand, they attack the West. On the other hand, there is recognition that in a democracy, people can hold its leaders accountable. He believes that democracy is a system that can deliver on behalf of its people."44

How has the American public viewed the ongoing operations in Iraq over the past few years? Just before the U.S. and its allies launched the attack, the USA Today reported that support for the war was 47 percent (if U.N. was not sanctioning the action).45 By mid-December 2006, CNN reported that 67 percent of Americans opposed the war in Iraq.46 Further deterioration in American opinion continued through late September 2007 when a poll showed 70 percent of Americans were against the war.47

At the time of drafting this paper, it is unclear how the war in Iraq will shape the U.S. Presidential election in 2008, but it is clear that the American public is getting tired of it. Al-Qaeda believes the democratic system works and it sees that it is having success in turning the American people against the war. Given the fury with which the American people reacted to the attack on the homeland in September 2001, it is likely that Al-Qaeda will not strike again so long as the public opinion polls favor its position of having the U.S. remove forces from Iraq.
International Resolve

Another attack on the American homeland would increase the international pressure on involvement against Al-Qaeda by effectively demonstrating to the U.S.’s allies that the War on Terror is still a worthy international pursuit. It would strengthen U.S. alliances while potentially weakening Al-Qaeda’s influence in their recruiting circles. To understand the importance of international opinion, consider a recent global poll by BBC shows that 67 percent of the world’s population wants the U.S. military out of Iraq within a year.48

Today, majorities in 19 of the 22 countries surveyed think troops should be out of Iraq within a year. This view is endorsed by an average of 67 percent, including 39 percent who want the troops out immediately and 28 percent who think they should be withdrawn gradually according to a one-year timetable.49

One can only presume that Al-Qaeda leadership is reading these surveys. Assuming they are reading the surveys, and assuming they are comparing these surveys against the popular international sentiment after 9/11, then it is easy to see why I believe that they will not generate another attack anytime soon – doing so would reignite international resolve for the American actions.

From the three arguments outlined above, it is not probable that Al-Qaeda will use GA aircraft for an attack on the American homeland.

Tactical, Operational, or Strategic?

Readers may question whether the events described above meet any test of differentiating amongst tactics, operations, and strategy. Strategists may consider a single plane crashing into a hometown football game as a tactical strike; I would agree with them. Strategists may define ten planes crashing into ten hometown football
games simultaneously as only an operational level attack. On this point I would disagree with them; I argue that if we consider the psychology of terror it would bring to Americans and the significant resources we consume in response to such an attack, it becomes strategic in nature.

Similarly, some may argue that the fundamental question, should the TSA’s funding priorities between civil aviation and general aviation be changed, is only a token tactical budgetary exercise. On this point, there seems to be enough evidence to disagree with them also. Note the comments on finite resources contained in the National Strategy for Homeland Security, below.

Although we have improved our ability to manage the risks that we face in the 21st century global security environment, we must enhance our ability to measure risk in a consistent and commonly accepted fashion and allocate finite resources accordingly.  

Furthermore, note the discussions on targeted funding and its relationship to risk management from that same document.

It also uses targeted funding based on a risk management approach to help ensure that homeland security partners are capable of working together effectively and efficiently – in a truly national effort.  

If resources were endless, then we could potentially add additional resources to more robustly defend against inappropriate uses of GA aircraft by terrorist organizations. Resources are not endless, though, so we must ensure that we target our limited resources towards the highest risks. GA security is less important to the homeland than is civil aviation security, so diverting resources from civil aviation to general aviation is not a wise decision. None-the-less, taking such a decision is truly a strategic action.
Conclusion

It is possible for Al-Qaeda to launch a *Kamikaze* attack on U.S. soil using GA aircraft because the aircraft are readily available, they are easy to steal, and Al-Qaeda has trained its operatives to fly such aircraft. For a variety of reason, however, it is not probable that Al-Qaeda will use GA aircraft as a method of attack on the U.S. homeland. The GA aircraft hold relatively small amounts of explosives (770 pounds) compared to other delivery methods such as truck bombs or IEDs detonating tanker trucks. Attacking the U.S. while troops are still fighting Al-Qaeda in Iraq is counter to Al-Qaeda’s aims of removing U.S. forces from the middle east because doing so would enrage the American people and bring them back into the fight. So, rather than leaving the Middle East, the U.S. population could be swayed into deploying more forces to fight the insurgency. Furthermore, because another attack on U.S. homeland would validate U.S. claims of legitimacy, the international community would also feel pressure to rejoin the U.S. in eliminating Al-Qaeda from Iraq.

Therefore, although it is possible that Al-Qaeda could use GA aircraft to deliver another blow to the U.S., it is unlikely that they will do so in the near future. Since it is unlikely that they will deliver such a blow, the TSA should not divert significant resources to prevent such an attack.

Endnotes


3 Ibid.


5 Ibid.

6 Ibid., 2.


8 Ibid.


13 Ibid.


15 Ibid., 2-3.


18 Cessna Aircraft Company, Model 172 and Skyhawk Owner’s Manual (Wichita: Cessna Aircraft Company, 1973), (inside cover, no page number)


21 Ibid.


28 Post, 23.


30 Ibid.


32 Ibid., 43.

33 Ibid., 34-35.

34 Ibid., 42.

35 Ibid., 19.


40 Post, 23.


43 Whitlock, 2.

44 Whitlock, 2.


49 Ibid.


51 Ibid., 4.