

**Testimony of Vern Raburn
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**Senate Finance Subcommittee on Energy, Natural Resources,
and Infrastructure
“Aviation Financing: Industry Perspectives”
July 19, 2007**

Chairman Bingaman and members of the Subcommittee, thank you for the opportunity to testify today on the various legislative proposals to fund the Airport and Airway Trust Fund (Trust Fund) and the need to modernize our air traffic control system.

I am President and CEO of Eclipse Aviation Corporation (Eclipse), located in Albuquerque, New Mexico. Eclipse has successfully designed, developed, certified – and is now manufacturing and delivering the world’s first Very Light Jet (VLJ) – the Eclipse 500. To date, we have delivered over 30 aircraft and are on track to deliver more than two hundred by the end of this year. This high-performance aircraft has technology and capabilities normally found in jets costing millions of dollars. With an acquisition cost of one half of today’s small jets and the lowest operating cost per mile of any jet, the Eclipse 500 provides the lowest cost of jet ownership ever achieved. This breakthrough has made the benefits of jet transportation available to a broader segment of the population, and inspired an emerging generation of entrepreneurs to bring a new form of air travel to the flying public – the air taxi. It has also opened up a new world of convenient air transportation to a majority of the communities in the U.S. that are simply not served by commercial airlines, thereby enabling significant economic and job growth.

My goal today is to first press upon the subcommittee the importance of modernizing our national air transportation system through the Next Generation Air Transportation System (NextGen) initiative. Second, I will provide my insights and recommendations on the various legislative proposals that address funding our aviation system. And finally, I want to dispel a few myths concerning VLJ integration into the national airspace system.

Before I get into my testimony, I want to first say that all participants in the aviation industry are in complete agreement about the critical need for transformation of the nation’s air traffic management system. We must get on with the specifics of modernization, as our aviation system and economy simply cannot afford the system gridlock that is inevitable.

Transformation to NextGen

The opportunity for innovation in our air transportation system is upon us. The FAA estimates that in less than twenty years, air traffic will roughly triple and passengers will double¹. However, simply tripling the old infrastructure is neither an affordable nor scalable solution. The existing architecture of the airspace is built around technologies developed in the middle of

¹ http://www.faa.gov/data_statistics/aviation/long-range_forecasts/media/long06.pdf

the last century. A good analogy, and one that the FAA has used, is that the current system is like the old telephone system with operators connecting lines manually with patch cables. That telephone system became saturated and was not scalable to the levels that modern business and consumers demanded. The Air Traffic Management system is under considerable strain as the demand for air travel increases and as the system's antiquated technology backbone is overwhelmed.

To its credit, the FAA recognized this growing need and in 2003, with the assistance of Congress, created the Joint Planning and Development Office (JPDO) charged with leading, along with aviation stakeholders, an effort to conceptualize and plan the NextGen. Under FAA Administrator Blakey great progress has been made and the transformation to NextGen has already begun.

NextGen technologies will be the most sweeping change to the way we fly since the current system developed during the 1940s and 1950s. These "transformation" technologies are really a re-architecting of the airspace, airports, and aircraft. Transformation includes such concepts as satellite- and airborne-based digitally communicated flight information; self-separation and sequencing; "free flight" or direct routing instead of the current, crowded air lanes system; RNP (required navigation performance), which creates more usable airspace; and four-dimensional flight trajectories (three spatial dimensions plus time). The benefits to the public include increased safety, more choices, more destinations, shorter travel times, greater ease in travel planning, and diffusion of economic opportunity beyond the Interstate off-ramps and hub airports. But the overarching benefit will be a fully scaleable, network centric Air Traffic Management system that will increase the nation's air traffic capacity by a factor of 3 and last well into the 21st century.

I am concerned, however, that these innovations and their tremendous benefits will be derailed by some of the proposed FAA funding concepts.

Funding Proposals

Before I discuss the legislative proposals before us today, let me first make one thing abundantly clear – I believe we as the aviation community, both GA and air carriers, need to be paying more to make the transformation to NextGen. I may not be completely in line with my GA colleagues on this point, but I do believe GA needs to pay more into the system. But we shouldn't be the only ones. Everyone using the system needs to pay more. I completely agree with Senator Lott who was quoted recently as saying "every one of you is going to have to pay more, do more, give more. It's time we do something grand. You're all going to pay more."

The various legislative proposals introduced over the last several months all impact the future financing of the Trust Fund and modernization. To be clear, however, the current funding debate is not an issue of funding levels needed to modernize. According to the Congressional Budget Office's testimony delivered last week before this committee, the existing funding structure, if maintained, can support over the next decade about \$22 billion in additional spending over the baseline FAA spending levels. This is in line with estimates made by the FAA for NextGen costs between \$15 and \$22 billion through 2025.

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In addition to the FAA NextGen costs, there are also estimates that show an aircraft equipage cost needed for existing aircraft to operate in the NextGen will be in excess of \$20 billion over the same period. The Eclipse 500 will be fully NextGen compliant by the end of next year at a cost in the thousands of dollars. That is possible because our aircraft is a new design employing the very latest in digital technology.

Unfortunately the current funding debate is being disguised as a NextGen funding debate, but it is really about shifting the costs of operating the entire system from one user group to another. I believe that it is the spoke and hub business model that drives the majority of system costs and congestion, not the introduction of VLJs. As I testified last year and the FAA also agreed, the introduction of VLJs will not cause delays in the system. VLJ operators and owner pilots will use their aircraft to go where the airlines don't, avoiding the congestion associated with the hubs. Why should Eclipse and other VLJ operators be required to subsidize a hub and spoke system, when in reality VLJ's will neither require nor seek regular access to major hub airports?

In fact, it is the advent of the VLJs and its air tax operators – like DayJet – that will provide smaller, rural communities access to affordable air transportation. Mr. Chairman, I know this is of importance to you, as well as Chairman Baucus and Ranking Member Grassley. One of the more persistent arguments being made in this debate is that the flying public, through the taxes they pay on airline tickets, are subsidizing corporate aviation through their contribution to the Trust Fund. However, I must remind the Committee that, in fact, the public taxpayers continue to subsidize commercial, scheduled service at over 140 commercial airports through the Essential Air Service program. In spite of the fact that smaller communities desperately need air transportation to drive business development and economic growth, the reality is that there is significantly less air service available today as measured by communities directly served. Virtually all of these communities have underutilized airports that can be used as economic growth engines. In the face of these challenges, the advent of the Eclipse 500 and other VLJs is playing a critical role in revitalizing the GA industry and improving air transportation to underserved communities throughout the country.

It is important to keep the end users in mind as you evaluate any new funding mechanism. As illustrated below, some of the recent proposals could have a dramatic effect on Eclipse and could ultimately slow down this revitalization of air transportation to smaller communities.

Unfortunately, the Administration passed up a unique opportunity to lay the foundation for NextGen. The FAA's reauthorization bill, entitled "The Next Generation Air Transportation System Financing Reform Act of 2007," was not welcomed by many Members of Congress and rightfully so – it focused too much attention on the abolishment of the current funding system and too little on modernization. It failed to outline the technologies, the timeline or the costs of the next phase of modernization. The bill's user fee proposal would have raised \$900 million less than the current funding mechanism (fuel and excise taxes). Specifically, the bill increases the fuel tax for Eclipse 500 operators by over 200% while eliminating the passenger ticket and segment taxes for commercial carriers, thereby decreasing their overall contribution to FAA and NextGen funding.

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I complement the Senate authors of S. 1300, “The Aviation Investment and Modernization Act” in getting a bill out of the gate. S. 1300 would establish a new \$25 per flight fee or tax for all turbine-powered operations flying IFR. This fee is expected to generate approximately \$400 million per year which will go into a FAA Modernization Account. The bill also recommends that the Jet-A fuel tax paid by Part 91 turbine operators be raised from 21.8 cents per gallon by 49 cents per gallon and that the 4.3 cents per gallon fuel tax paid by commercial carriers be phased out.

Eclipse strongly opposes the \$25 per flight fee as it will penalize the Eclipse 500 more than any other aircraft flying today! We will deliver more than 1,200 aircraft by the first half of 2009. Under S. 1300, these first 1,200 Eclipse 500 operators would be paying between \$17 and \$30 million annually in new fees². That is roughly (based on a conservative estimate) 5% of the \$400 million the FAA is to collect annually for modernization projects. As much as I would like to see Eclipse 500’s populate the system in this way, I can tell you with certainty that our aircraft will not be using anywhere near 5% of the system or comprise 5% of the operations within the NAS.

S. 1300 also disregards the fact that the Eclipse 500 is the most fuel efficient jet on the market and gives an advantage to turbine powered turboprop aircraft flying VFR. The bill is based on the premise that a “blip is a blip”. Simply stated size matters. While a comparison between a Boeing 767 and Gulfstream G550 has some validity, comparing that same Boeing 767 to an Eclipse 500 severely strains any concept of creditability. Likewise characterizing aircraft merely by their propulsion system is just plain silly. The \$25 per flight fee is regressive as it treats all airplanes the same whether they are a 6-seat Eclipse 500 flying on short segments (Albuquerque, NM to Demming, NM; Gainesville, FL to Naples, FL or Dayton, OH to Charlottesville, VA) or a Boeing 767 on cross country flights (JFK to LAX or SEA to MIA). Overall, the \$25 per flight fee is an extremely regressive tax on Eclipse and its customers, the vast majority of who will operate short haul flights into underutilized airports and communities.

In summary, S. 1300 doesn’t meet the equity test. In addition to a new \$25 per flight user fee, it more than doubles the fuel tax for Eclipse operators, while phasing out the 4.3 cents per gallon fuel tax for commercial operators. This is not following the philosophy that everyone will need to pay more.

I am encouraged by the provisions of H.R. 2881, “The FAA Reauthorization Act of 2007.” The bill makes modest adjustments to Jet A fuel tax and Aviation Gas tax paid for by GA operators. Fuel taxes are perhaps the simplest and most efficient way to pay for system use as they are paid for at the pump. Just as Congress is planning to increase the automotive CAFÉ level to encourage fuel conservation, a fuel tax will encourage user to modernize their fleets with more fuel efficient aircraft. The bill also does not make any changes to the current fuel taxes paid for by the commercial carriers. So, it increases taxes for GA operators while maintaining the status

² It is estimated that of the 1,200 aircraft delivered approximately 400 will be put into air taxi use and 800 will be flown by individual owners. Air Taxi Eclipse 500 operators with 400 aircraft will fly approximately 1,300 to 2,080 flights per year, which equates to \$13 million - \$20 million in new taxes per year. 800 owner Eclipse 500s will fly approximately 160,000 to 400,000 total flights per year, which equates to \$4 million - \$10 million in new taxes per year.

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quo for the commercial operators. While I would prefer to see all entities using the aviation system pay more to fund modernization, H.R. 2881 is currently the most reasonable approach to funding NextGen.

Let me be clear, Eclipse and its customers are willing to pay more into the system for modernization. We believe strongly in the need and importance of transforming our system. We have waited long enough. However, we would like to see any increase be administered through the fuel tax which is a more equitable way to fund the system and not through a regressive user fee. The amount of fuel purchased is directly related to the time, distance and facilities used by our aircraft. And it is a fair proxy for the size of an aircraft and the impact on all aviation facilities. It discourages flights into congested airspace and airports where holding patterns and ground delays waste fuel and it promotes fuel efficiency and conservation.

Myths

Let me just briefly address some misconceptions associated with VLJs and airport congestion. As mentioned earlier, VLJs will not utilize the airspace around major hubs. FAA data supports this with GA operations accounting for only six percent of the operations at the Operational Evolution Plan (OEP) 35 airports which is where 73 percent of the passengers fly through and 90 percent of the delays in the NAS come from.

In addition, I want to clarify some of the misinformation regarding the causes of delays in the system. Below is how the Bureau of Transportation Statistics has summarized the causes of Airlines delays for May 2007 (http://www.transtats.bts.gov/OT_Delay/OT_DelayCause1.asp):

- o On-time 77.91%
- o Air Carrier Delay 5.76%
- o Weather Delay 0.76%
- o National Aviation System Delay 7.49%
- o Security Delay 0.06%
- o Aircraft Arriving Late 6.71%
- o Cancelled 1.08%
- o Diverted 0.23%

The National Aviation System (caused) delays (7.49%) are provided in further detail at http://www.transtats.bts.gov/OT_Delay/ot_delaycause1.asp?type=5&pn=1 and the specific causes are as follows:

- o Weather 60.28%
- o Volume 24.58%
- o Equipment 1.55%
- o Closed Runway 10.59%
- o Other 3.00%

If you parse out the 24.58% attributable to volume, you will see the only cause that GA could be influencing. This would mean GA could only be a factor in causing delays in 1.84% of flights (0.0749 x 0.2458). However, with GA only accounting for 6 percent of flights at the OEP 35,

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isn't it more likely that the 1.84% of flights affected by volume delays, are actually more affected by airline volume than GA traffic?

Besides the fact that airlines drive delays due to their operating patterns they also cause delays merely by the size of their aircraft. Large aircraft require far more air and ground space. Interestingly the 22nd busiest airport in the world is an exclusive general aviation airport in Phoenix, AZ called Deer Valley. In fact it is busier than Boston-Logan, New York-LaGuardia, JFK, Miami, Washington Dulles, or San Francisco. It is important to note that you do not see the delays at Deer Valley that are the norm at those other less busy, commercial airports. Once again physics provides the explanation. Large air transport aircraft require bigger runways, bigger parking spots and much more airspace to arrive and depart.

Some others believe that VLJs will clog our airspace and create gridlock in the skies. The reality is that there is significant available airspace to accommodate these new aircraft. Because the existing U.S. air routes operate like railways – as narrow, pre-determined paths in the sky – airspace on popular routes is crowded. Each aircraft must be separated from the others by carefully defined vertical and horizontal distances. Because of the architecture of the existing system, airspace appears scarce; in reality, airspace is abundant. The challenge lies in accessing the utility of this abundance, through technology. Since VLJs are technologically advanced and nimble and will use complementary airspace and airports, they will not impact the increasing congestion in the large airport system.

Thank you for the opportunity to testify before the Senate Finance Subcommittee on Energy, Natural Resources and Infrastructure. I hope that my comments are instructive to understanding the importance of modernizing our air traffic system; the impact of funding proposals on the Eclipse 500; and the incorporation of VLJs into the NAS.

We look forward to continuing to work with you as you craft the financing title to this important legislation.

Respectfully submitted,

Vern Raburn
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Eclipse Aviation Corporation

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